

RESTRICTED

R.A.F. NARRATIVE
(First Draft)

THE CAMPAIGN IN FRANCE AND THE LOW COUNTRIES

September 1939 - June 1940

AIR HISTORICAL BRANCH (1)
AIR MINISTRY

RESTRICTED

REVISED

THE CAMPAIGN IN FRANCE AND THE LOW COUNTRIES
SEPTEMBER 1939 - JUNE 1940

FOREWORD
CHRONOLOGY OF PRINCIPAL EVENTS

PART I

	Pages
<u>BEFORE THE WAR: THE ANGLO FRENCH CONVERSATIONS</u>	1-32
<u>The origin of the Conversations.</u>	1- 6
<u>The 1939 Conversations, General Strategy.</u>	6-11
<u>The 1939 Conversations, Air Details:-</u>	12-25
(1) Collaboration in delaying a German advance through the Low Countries.	12
(2) Action against the German Air Force.	15
(3) Action against German war industry.	16
(4) Selection of restricted "military" objectives.	17
(5) Air action in support of Poland.	18
(6) Anti-Aircraft protection of British bases etc., in France.	19
(7) Air Co-operation against Italy.	20
(8) The Air Aspect of Chemical Warfare.	21
(9) Arrangements for Liaison and Command.	21
(10) Administrative arrangements for British Forces in France.	22
(11) The state of French aircraft production.	24
<u>The 1939 Conversations, Final Stages.</u>	26-28
<u>The 1939 Conversations, Commentary.</u>	28-32

PART II

FROM THE OUTBREAK OF WAR TO THE GERMAN ATTACK

	<u>Pages</u>
I. <u>The Move to France.</u>	33- 42
The Forces destined for France.	33
The establishment of the A.A.S.F. in France.	34
The establishment of the Air Component in France.	39
II. <u>The Reorganisation of Higher Command. Control and Liaison.</u>	43- 50
Before the formation of the B.A.F.F. Command.	43
The formation of the B.A.F.F. Command. No.3 Air Mission.	45 49
III. <u>The Redisposition, Reorganisation and Reinforcement of the Fighter Squadrons.</u>	51- 62
French request for further British fighter squadrons, September 1939.	51
Transfer of Nos.1 and 73 Squadrons to A.A.S.F.	54
Nos.61 and 62 Fighter Wing Servicing Units.	55
Changes in disposition of Air Component fighters; arrival of Nos.607 and 615 Squadrons.	56
Formation of No.14 Group: Summary of fighter dispositions, January 1940.	57
Development of reinforcement plans: No.63 Fighter Wing Servicing Unit.	58
Suggested fighter patrols from British bases.	60
Fighter moves during the April crisis: opening of the German attack.	60
IV. <u>The Redisposition, Reorganisation and Reinforcement of the Bomber Squadrons.</u>	63- 71
The Retention of the 2nd Echelon, A.A.S.F., in the U.K.	63
Plans for Blenheim Reinforcement.	64
Plans for operating heavy bombers from France.	66
Re-equipment of the A.A.S.F. Squadrons.	68
Administrative Reorganisation.	70
V. <u>The Redisposition, Reorganisation and Reinforcement of the Reconnaissance Squadrons.</u>	72- 77
Position in October 1939.	72
Formation of No.52 Wing.	72
Revision of allotment of reconnaissance to H.E.F.: Air Ministry - War Office discussions.	73
Locations of reconnaissance units, May, 1940.	76
No.212 Squadron.	76

/VI. The

	Pages
<u>VI. The Construction and Improvement of Aerodromes.</u>	78- 94
The Programme in general.	78
The B.E.F. Forward Area.	81
The B.E.F. Rear Area.	83
Improvements to existing aerodromes in B.E.F. area.	84
The South Champagne area.	87
The Verdun - Metz area.	88
Improvements to existing aerodromes in the A.A.S.F. area.	89
The Orléans - Le Mans area.	91
<u>VII. Development in the Organisation of Defence against Enemy Air Attack.</u>	95-113
Air Raid Reporting: (a) The French Observer System.	95
Air Raid Reporting: (b) The British Wireless Intelligence Screen.	96
Air Raid Reporting: (c) R.D.F.	98
Air Raid Reporting: (d) Filter Centres.	100
Air Raid Reporting: (e) Progress achieved.	102
Fighter Defence.	102
Anti-Aircraft Guns.	105
Searchlights.	109
Balloon Barrages.	111
Miscellaneous.	112
Conclusion.	112
<u>VIII. Developments in the Maintenance Organisation.</u>	114-124
Early modifications of the original maintenance project.	114
The formation of Maintenance Control.	115
No.21 Aircraft Depot.	116
Repair and Salvage Units.	120
<u>IX. Organisation for Mobility: Mechanical Transport.</u>	125-133
The determining factors.	125
The M.T. Reorganisation Scheme.	126
Progress achieved in implementing the scheme.	131
<u>X. Training and Exercises.</u>	134-139
The original state of training of the air crews.	134
Restrictions on training.	135
Intensive night training by Battles.	137
Tactical Exercises.	138
<u>XI. Operations before the German Attack.</u>	140-154
Bombing operations.	140
Reconnaissance operations:	
(a) A.A.S.F.	
(b) Air Component.	143
(c) No.212 Squadron.	147
(d) Conclusion.	148
Fighter Operations:	
(a) Air Component.	148
(b) A.A.S.F.	150
Summary.	154

III. Plans for the Land Battle.

155-176

The Military Plan.

155-159

The Air Plan.

159-185

(a) Reconnaissance.

160

(b) Fighters.

165

(c) "Medium" bombers.

169

(d) "Heavy" bombers.

176

PART III

FROM THE GERMAN ATTACK TO THE DUNKIRK EVACUATION

Pages
186-349

May 10th

Military Summary	186
The opening moves	186
Reconnaissance	188
Bombing Operations:	
(a) Waalhaven and Ypenburg aerodromes; The Hague objectives	189
(b) Luxembourg	190
(c) By night: Waalhaven aerodrome and communications in Germany west of the Rhine	192
Fighter Operations and Reinforcement:	
(a) Fighter Command	192
Fighter Operations:	
(b) The A.A.S.F.	193
(c) R.A.F. Component	193

May 11th

196-200

Military Summary	196
Reconnaissance	196
Bombing Operations:	
(a) Near Maastricht	197
(b) Near Prun	197
(c) By Night: München Gladbach	198
Fighter Operations:	
(a) Fighter Command	198
(b) R.A.F. Component	199
(c) The A.A.S.F.	199
(d) Summary	200
German Air Attack	200

May 12th

201-210

Military Summary	201
Reconnaissance	202
Bombing Operations:	
(a) Near Maastricht	203
(b) In the Ardennes	206
(c) By night: German communications west of the Rhine; Waalhaven aerodrome	207
Fighter operations and Reinforcement:	
(a) Coastal and Fighter Commands	207
Fighter Operations:	
(b) R.A.F. Component: Operations and Reinforcement	208
(c) The A.A.S.F.	209
German Air Attack	210

May 13th

211-216

Military Summary	211
Reconnaissance	212
Bombing Operations:	
(a) Near Breda	213
(b) By night: Communications in Germany west of the Rhine and in Holland	213
Fighter Operations and Reinforcement:	
(a) Fighter Command	214
(b) R.A.F. Component	214
Fighter Operations:	
(c) The A.A.S.F.	215
German Air Attack	215

May 14th

	Pages
<u>May 14th</u>	217-228
Military Summary	217-
Reconnaissance	218
Bombing Operations:	
(a) Near Broda	219
(b) Near Sedan	219
(c) By night: Communications in Germany west of the Rhine and in Holland	225
Fighter Operations:	
(a) Fighter Command	226
(b) R.A.F. Component	226
(c) The A.A.S.F.	227
German Air Attack	227
<u>May 15th</u>	229-241
Military Summary	229
Reconnaissance	231
Bombing Operations:-	
(a) Dinant and Montherme	231
(b) By night: Dinant, Montherme etc.	232
(c) By night: Marshalling yards and industrial objectives in Germany. (War Cabinet deliberations May 10th to 15th: Operations May 15/16th).	233
Fighter Operations and Reinforcement:	
(a) Fighter Command	236
(b) R.A.F. Component	238
(c) The A.A.S.F.	238
Preparations for the retirement of the A.A.S.F.	239
German Air Attack	241
<u>May 16th</u>	242-251
Military Summary	242
Reconnaissance	243
Bombing Operations:	
(a) Montherme	244
(b) By night: Maastricht, Aachen, München Gladbach	244
(c) By night: German industrial targets	244
Fighter Reinforcement	245
Fighter Operations:	
(a) Fighter Command	246
(b) R.A.F. Component	246
(c) The A.A.S.F.	247
Retirement of North B.A.F.F: H.Q. and the A.A.S.F.	247
<u>May 17th</u>	252-263
Military Summary	252
Reconnaissance	253
Bombing Operations:	
(a) Gembloux, Le Cateau	254
(b) By night: communications on and near the Meuse	256
(c) By night: railways and industrial targets in Germany	257
Fighter Operations:	
(a) Fighter Command	257
(b) R.A.F. Component	258
(c) The A.A.S.F.	259

/Preparations for

	Pages
Preparations for retirement of the R.A.F. Component	260
Retirement and organisation of the A.A.S.F. May 17 to 19	260
Commentary on the A.A.S.F. move and re-organisation	261
<u>May 18th</u>	264-271
Military Summary	264
Reconnaissance	265
Bombing Operations:	
(a) Landrecies - Le Cateau	265
(b) By night: communications on and near the Meuse	267
(c) By night: railways and oil plants in Germany	267
Fighter Operations:	
(a) Fighter Command	268
(b) R.A.F. Component	268
(c) The A.A.S.F.	270
Retirement of the R.A.F. Component	270
<u>May 19th</u>	
Military Summary	272
Reconnaissance	273
Bombing Operations:	
(a) Near Rethel	274
(b) By night: communications on and near the Meuse and in advance of the B.E.F. front	275
(c) By night: oil targets in Germany	275
(d) Policy discussion (May 16 - 20th)	276
Fighter Operations:	
(a) Fighter Command	279
(b) R.A.F. Component	279
(c) The A.A.S.F.	281
Retirement of the R.A.F. Component	281
<u>May 20th</u>	283-290
Military Summary	283
Reconnaissance	284
Bombing Operations:	
(a) Near Maastricht	285
(b) By night: German communications in France and Belgium	286
(c) Oil storage tanks at Rotterdam	288
Fighter Operations:	
(a) Fighter Command	288
(b) R.A.F. Component	288
(c) The A.A.S.F.	288
Retirement of the R.A.F. Component (May 20-26th)	288
<u>May 21st</u>	291-295
Military Summary	291
Reconnaissance	291
Bombing Operations:	
(a) Near Hesdin and Montreuil	292
(b) By night: communications in France and Germany	293
Fighter Operations:	
(a) Fighter Command	294
(b) The A.A.S.F.	294
	<u>May 22nd</u>

<u>May 22nd</u>	296-300
Military Summary	296
Reconnaissance	296
Bombing Operations:	
(a) In the departments of the Somme and the Pas de Calais	297
(b) By night: communications leading to and across the Upper Meuse	299
(c) By night: oil targets in Germany	299
Fighter Operations:	
(a) Fighter Command	299
(b) The A.A.S.F.	300
<u>May 23rd</u>	301-305
Military Summary	301
Reconnaissance and Bombing Operations	
(a) Organisation (May 23rd-June 4th)	302
(b) The Boulogne area	303
Bombing Operations:	
(c) By night: German communications in France, Belgium, Holland and Germany	304
Fighter Operations	304
<u>May 24th</u>	306-308
Military Summary	306
Reconnaissance and Bombing Operations:	
(a) The Pas de Calais and the department du Nord	306
Bombing Operations:	
(b) By night: communications in France, Belgium and Germany. Oil tanks at Rotterdam. A factory at Leverkusen	307
Fighter Operations	307
<u>May 25th</u>	309-311
Military Summary	309
Reconnaissance and Bombing Operations:	
(a) In the Pas de Calais and department du Nord	309
(b) Other areas. Between Menin and Courtrai	310
Bombing Operations:	
(c) By night: communications in France, Belgium and Germany	310
(d) By night: oil tanks at Rotterdam; refineries in Germany	311
Fighter Operations	311
<u>May 26th</u>	312-315
Military Summary: Beginning of operation "Dynamo"	312
Reconnaissance and Bombing Operations:	
(a) Near Courtrai	313
(b) The Pas de Calais and department du Nord	313
Bombing Operations:	
(c) By night: communications and aerodromes	314
Fighter Operations	314

May 27th

	Pages 316-320
<u>May 27th</u>	
The evacuation	316
The organisation of the perimeter: the retirement on Dunkirk	316
Belgian surrender	317
Reconnaissance and Bombing Operations:	
(a) The Belgian - B.E.F. front	317
(b) The Pas de Calais	317
Bombing Operations:	
(c) By night: aerodromes, dumps and communications	318
(d) By night: German oil refineries	319
Fighter Operations	319
<u>May 28th</u>	321-323
The withdrawal and the evacuation	321
Reconnaissance and Bombing Operations:	
(a) The Pas de Calais and the department du Nord	321
(b) West of Courtrai	322
Bombing Operations:	
(c) By night: German communications in France and Belgium	322
Fighter Operations	322
<u>May 29th</u>	324-328
The withdrawal to the perimeter: the evacuation	324
Reconnaissance and Bombing Operations:	
(a) East of Dunkirk and in the Pas de Calais and the department du Nord	324
Bombing Operations:	
(b) By night: communications at Charleville and behind Dunkirk	326
Fighter Operations	326
<u>May 30th</u>	329-332
The evacuation	329
Reconnaissance and Bombing Operations:	
(a) The approaches to Dunkirk	329
Bombing Operations:	
(b) Revised bombing directive	330
(c) By night: the approaches to Dunkirk	330
(d) By night: oil at Hamburg	331
Fighter Operations	331
<u>May 31st</u>	333-336
The evacuation	333
Reconnaissance and Bombing Operations:	
(a) The approaches to Dunkirk	333
Bombing Operations:	
(b) By night: communications in the Rhine, Ardennes, Meuse and Dunkirk area.	334
Fighter Operations	334
<u>June 1st</u>	337-341
The evacuation	337
Reconnaissance and Bombing Operations:	
(a) The approaches to Dunkirk	337
Bombing Operations:	
(b) By night: the approaches to Dunkirk	338
(c) By night: marshalling yards and oil in Germany	338
Fighter Operations	338
	<u>/June 2nd</u>

	Pages
<u>June 2nd</u>	342-343
The evacuation	342
Reconnaissance and Bombing Operations:	
(a) The Dunkirk area	342
Bombing Operations:	
(b) By night: communications and aerodromes	342
in France, marshalling yards and oil in	
Germany	
Fighter Operations	342
<u>June 3rd</u>	344-345
The evacuation	344
Reconnaissance and Bombing Operations:	
(a) Near Dunkirk	344
Bombing Operations:	
(b) At night: communications and batteries	344
near Dunkirk. Oil and railway objectives	
in Germany. Oil storage tanks at Ghent	
and Rotterdam	
Fighter Operations	345
<u>June 4th</u>	346-349
The evacuation	346
Reconnaissance and Bombing Operations:	
(a) North of the Somme	346
Bombing Operations:	
(b) By night: communications and concentra-	346
tions in France: oil in Germany	
(c) Policy discussion, May 30th - June 4th	347
Fighter Operations	349

PART IV

/June 7th

<u>June 7th</u>	Pages 386-390
Military Summary	386
Retirement of South Component	487
Bombing Operations:	
(a) Against the thrust to the Seine	487
(b) By night. German communications in France. Forest fire-raising	388
(c) By night. Oil in Germany	388
Fighter Operations	388
Fighter Reinforcement	389
<u>June 8th</u>	391-394
Military Summary	391
Retirement of B.A.F.F. Operational Headquarters	392
Bombing Operations:	
(a) Between Somme and Seine	392
(b) By night. German communications in France	393
(c) By night. Marshalling yards etc. in Germany	393
Fighter Operations and Reinforcement	394
<u>June 9th</u>	395-398
Military Summary	395
Bombing Operations:	
(a) Between Somme and Seine	396
(b) By night. German communications and concentrations in France	396
(c) By night. Railway targets in Germany	397
Fighter Operations	397
Retirement of A.A.S.F. Advanced Headquarters	398
<u>June 10th</u>	399-402
Military Summary	399
Bombing Operations:	
(a) Near the Seine	400
(b) By night. German communications in France	401
Fighter Operations	401
Moves of South Component	402
<u>June 11th</u>	403-408
Military Summary	403
Retirement of South Component and the Eastern A.R.U.	404
Bombing Operations:	
(a) Near the Seine	404
(b) By night. German communications in France	406
Fighter Operations	406
<u>May 3rd - June 11th</u>	409-410
Operations against Italy:	
(a) Preparations, May 3rd - June 11th	409
<u>June 11th - 12th</u>	411-413
Operations against Italy:	
(b) The events of June 11/12th	411

/June 12th

	Pages
<u>June 12th</u>	414-418
Military Summary	414
Bombing Operations:	
(a) The Seine area	415
(b) The Oise area	416
(c) Near St. Valéry-en-Caux	416
(d) By night. German communications in France.	416
Fighter Operations	416
Preparations for withdrawal	417
<u>June 14th</u>	419-427
Military Summary	419
Retirement of the A.A.S.F.	421
Bombing Operations:	
(a) Intended scale of effort	422
(b) In the Seine area	423
(c) In the Marne area	424
(d) By night: German communications and concentrations in France	425
Fighter Operations	426
Operations against Italy	427
<u>June 14th</u>	
Military Summary: Orders for partial evacuation	428
Moves of B.A.F.F. ordered before partial evacuation	430
Bombing Operations:	
(a) The Seine area	431
(b) Morville aerodrome	432
(c) By night. German communications in France	432
(d) By night. German marshalling yards; the Black Forest, mining the Rhine	432
Fighter Operations	433
<u>June 15th</u>	435-439
The evacuation plan:	
(a) Departure of the bombers	435
(b) Concentration of Fighters for defence of the ports	435
Military Summary	436
Bombing Operations:	
(a) The Seine-Eure area	437
(b) By night. Genoa	438
Fighter Operations	438
<u>June 16th</u>	440-443
The evacuation:	
(a) Military	440
(b) R.A.F.	440
Military Summary	441
Bombing Operations: Milan and Genoa	442
Fighter Operations	442
<u>June 17th</u>	444-451
Military Summary	444
The evacuation:	
(a) Cherbourg	444
(b) The Western ports	444
(c) Marseille	449
Fighter Operations	450
Bombing Operations: By night. Oil, railways and river-mining in Germany	451
	<u>/June 18th</u>

June 18th

452-455

The evacuation:

(a) Nantes and St. Nazaire

452

(b) Cherbourg

453

Fighter Operations

454

Bombing Operations: near Cherbourg

455

PART V

May 10th to June 18th:

	Pages
COMMENTARY	456-481.
<u>The Effect of the R.A.F. on the Campaign</u>	456-473
(a) The Difficulty of assessment	456
(b) Recapitulation of bombing policy	457
(c) Achievements in daylight tactical bombing	459
(d) Achievements in night bombing of communications etc. west of the Rhine	460
(e) Achievements in night bombing of oil and marshalling yards east of the Rhine	462
(f) The controversy on the use of the "heavies"	463
(g) Achievements of the Fighters	464
(h) The "Fighter reinforcement" controversy	467
(i) Achievements of reconnaissance aircraft	469
(j) The outstanding achievement: Dunkirk	470
<u>The Effect of the Campaign on the R.A.F.</u>	474-481
(a) Losses in Aircraft	474
(b) Losses in other equipment	474
(c) Losses in personnel	475
(d) Wider effects: analysis of bombing losses to show influence on future bombing policy	475

APPENDICES

A. Division of responsibility for the provision of services and signals for the Advanced Air Striking Force	
B. Location of units administered by A.A.S.F.	15th Oct. 1939
C. 1. Location of units administered by R.A.F. Component	10th May, 1940
2. Location of units administered by A.A.S.F.	10th May, 1940
3. Location of units administered by No.2 Base Area	1st April, 1940
D. First line strength R.A.F. in U.K. and France	10th May, 1940
E. French air forces: organisation and order of battle	6th May, 1940
F. Estimated order of battle: G.A.F.	10th May, 1940
G. Moves of headquarters	Sept. 1939- June 1940.
H. Location of R.A.F. units administered by A.A.S.F.	24th May, 1940
I. Location of R.A.F. units administered by A.A.S.F.	7th June, 1940
J. Estimated order of battle: G.A.F.	June 1940
K. Major operation instructions implemented during the campaign	
L. Statistics: R.A.F. component fighter aircraft	/M

M. Casualties to R.A.F. a/c operating from U.K.
and France 10th May - 29th June 1940.

MAPS

The Campaign in France and the Low Countries: general
maps I and II

Order of battle, British and French air forces in
France: May 9th 1940.

Order of battle, British air forces in France:
May 21st 1940
June 7th 1940

Projected strategical reconnaissance zones:
R.A.F. Component, Bomber Command and Z.O.A.N.

Airfields in France and Belgium used by the R.A.F.:
September 1939 - June 1940

Targets attacked by the R.A.F.: May 10th - 14/15th

May 15th - 19/20th

May 20th - 25/26th

May 26th - 31st

June 1st - 4/5th

June 5th - 9/10th

June 10th - 14/15th

June 15th - 18th

FOREWORD

The narrative which follows must be regarded as "preliminary" in two senses. In the first place, it is a first draft, to which the corrections and additions of those who were concerned in the campaign are invited. Secondly, it is "preliminary" in a much more fundamental sense. No adequate military history can be written from the records of one side alone, and it will be the task of a historian, after the war, to synthesise this narrative, the records of the enemy, the records of our allies and any other material which may become available, into some briefer and more balanced account. The narrative thus represents an intermediate stage between thousands of relevant Royal Air Force and Air Ministry records and files on the one hand, and an account suitable for the educated public on the other. It is therefore purely a work of reference for the historian; and those officers to whom this draft is circulated for the detection of sins of omission and commission, are counselled to read it in very small doses at a time. Any more ambitious attempt will probably result in the entire defeat of the reader.

For purposes of consultation but not of circulation, a documentary annex to this narrative has also been compiled, and exists in typewritten form. It contains a detailed abstract of the work of each squadron during the active phase of the campaign, and a collection of the more important signals, reports and letters exchanged during the same period.

A word is necessary on the general nature and value of the sources used. The more important papers include War Cabinet Papers and Conclusions, Chiefs of Staff Sub-Committee papers, Diplomatic telegrams (London-Paris), Air Ministry files and branch records, B.A.F.F. and A.A.S.F. Headquarters files, and the operations record books of all headquarters and units which took part in the campaign. The most valuable single record is the Form 540 and appendices (including the telephone log) of B.A.F.F. Headquarters (North), which was excellently kept under conditions of the utmost difficulty. The A.A.S.F. records are also, in general, well kept and well preserved. Two extremely valuable secondary sources were compiled after the close of the campaign - the Report on the A.A.S.F., and Air Marshal Barratt's Despatch. The latter is a model of what a commander's despatch should be: and both should be read in conjunction with this narrative.

The one big gap in the British records of the campaign, from the air aspect, relates to the R.A.F. Component. What survives from this formation is entirely inadequate as a basis for an accurate account, and the historian in search of fuller documentary material in this direction is regretfully referred to an indeterminate spot at the bottom of Boulogne harbour. The particular pity about this is that, though the R.A.F. Component squadrons obviously flew and fought magnificently, it is in consequence quite impossible to do justice to their performance. Whereas, for instance, the work of Nos. 1 and 73 Squadrons with the A.A.S.F. will never lack its just meed of appreciation, the work of some of the Hurricane squadrons with the R.A.F. Component will perforce go largely unhonoured and unsung, not because they fought less well, but because they lost their records. There is a lesson here for the commander who is not insensitive to the verdict of posterity.

CHRONOLOGY OF PRINCIPAL EVENTS

1939

February	2	Proposal for full scale Anglo-French Conversations approved by Cabinet.
March	15	German move into Czecho-Slovakia.
	29	Full scale Anglo-French Staff Conversations opened in London. Decision to double Territorial Army taken by Cabinet.
	31	British and French guarantees to Poland announced.
April	13	British and French guarantees to Roumania and Greece announced.
	26	Compulsory military training announced by Mr. Chamberlain.
May	22	Italo-German alliance signed in Berlin.
August	21	Russo-German Non-aggression Pact announced.
	24	Secret mobilisation of A.A.S.F. and Air Component ordered.
September	1	Germany at war with Poland.
		A.A.S.F. H.Q. opened at Reims.
	2	A.A.S.F. "First Echelon" squadrons flew to France (Nos. 40, 226, 103, 218, 12, 142, 15, 105, 150, 88 Battles).
	3	Great Britain and France at war with Germany.
	8-9	Four Hurricane squadrons of Air Component arrived in France (Nos. 85, 87, 1 and 73).
	12	Departure from England of A.A.S.F. "Second Echelon" postponed.
	15	Air Component H.Q. opened at Le Mans.
	18	First Air Component reconnaissance squadron arrived in France: No. 53 (Blenheims).
	19	A.A.S.F. Battles began patrols over enemy territory.
	20	First enemy aircraft destroyed: an Me.109 by Battle aircraft.
	28-29	Air Component fighter squadrons moved to B.E.F. concentration area.
	29	First reconnaissance by Air Component aircraft.
		Partition of Poland by Germany and U.S.S.R.
	30	Nos. 18 and 57 squadrons (Blenheims) joined Air Component.
October	2	Air Component H.Q. moved to Maroeuil alongside G.H.Q.
	2-8	Lysander squadrons of Air Component arrived (Nos. 4, 13, 2 and 26).
	8	Two Air Component fighter squadrons detached to A.A.S.F. area (Nos. 1 and 73).
	9	Detachments of No. 2 Mission established at Chauny (H.Q. Z.O.A.N.) and at Nancy (H.Q. Z.O.A.E.)
	12	Fourth Blenheim squadron joined Air Component: No. 59
		Rejection of Hitler's Peace Proposals announced by Mr. Chamberlain.
	19	Anglo-French Treaty with Turkey signed.
	30	First successful combat between Hurricanes and enemy aircraft. One Do. 17 destroyed.
November	1	No. 3 Air Mission formed at Valenciennes.
	11-15	"Flap": German attack considered imminent.
	15	Air Component reinforced by two fighter squadrons (Nos. 607 and 615: Gladiators).
	21	Scheme for A.A.S.F. second echelon abandoned.
	5	Special P.R. flight arrived in France.
	30	Russian invasion of Finland.
December	1-9	Two A.A.S.F. Battle squadrons (Nos. 15 and 40) returned to U.K. to re-equip. Replaced by two Blenheim squadrons: Nos. 114 and 139.

/1940

1940

January	13-15	"Flap"
	15	H.Q. B.A.A.F. formed at Coulommiers, under Air Marshal Barratt.
	20	No.14 (Fighter) Group, and No.5 Signals Wing formed in Air Component.
February	12	No.212 (P.R.) squadron formed.
	19	Nos.924 and 912 Balloon Barrage squadrons arrived in France.
	21	A.A.S.F. bomber wings re-organised.
March	3	Russo-Finnish Armistice signed.
	16	Leaflet-dropping operations begun by A.A.S.F.
	29	Destruction of first Me.110.
April	11-16	"Flap"
	13	No.16 (A.C.) squadron (Lysanders) joined Air Component
	9	German invasion of Denmark and Norway.
April-May	-	Air Component's two Gladiator squadrons re-equipped with Hurricanes.
May	7	"Flap"
	10	German invasion of Holland, Belgium and Luxembourg Execution of Plan "D" ordered. Offensive Allied air action initiated against enemy columns and communications. Nos.3 and 79 fighter squadrons (Hurricanes) reinforced R.A.F. Component; No.501 - A.A.S.F. Resignation of Mr. Chamberlain; Mr. Churchill Prime Minister.
	11	No.114 squadron, A.A.S.F., destroyed on the ground by air attack.
	12	Attack on Albert canal bridges west of Maastricht by No.12 squadron. No.504 fighter squadron reinforced R.A.F. Component. B.E.F. established on the Dyle line.
	13	German bridgeheads over Meuse near Houx and Sedan. R.A.F. Component reinforced by 32 Hurricanes and pilots from Fighter Command.
	14	German bombardment of Rotterdam. French and British falling back to Antwerp - Wavre line. Concentrated R.A.F. effort against Meuse crossings near Sedan.
	15	Dutch resistance ceased, except in Zeeland. German advance through Meuse gap directed towards the mouth of the Somme. Air Chief Marshal Dowding appeared before War Cabinet to resist calls for further fighter reinforcements to France. A.A.S.F. bombers to operate principally by night.
	15-16	Attacks on industrial objectives in Germany initiated.
	16	B.E.F. ordered back to Escaut.
	16-17	R.A.F. Component reinforced by eight half squadrons from Fighter Command. Six more squadrons to operate daily from advanced bases in R.A.F. Component area.
	16-18	Retirement of A.A.S.F. behind Marne to S. Champagne area: Bombers non-operational during move: Bomber wings reorganised.
	17	Germans in Brussels. Withdrawal of exposed R.A.F. Component units northwards and westwards. Lysanders and Blenheims of R.A.F. Component employed on bombing operations.

/17-18

May	17-18	Heavy bombers began attacks on enemy forward communications across the Meuse.
	18-19	Allies established on Escaut. Germans across the Sambre and Oise.
	18	Marshal Petain Vice-Premier
	19	General Gamelin replaced by General Weygand. Planning of Operation Dynamo began. (Evacuation of forces through Boulogne, Calais and Dunkirk).
	19-20	R.A.F. Component reconnaissance squadrons evacuated (Nos. 18, 57, 53, 59, 2, 16, 26). Two remained (Nos. 4 and 14). R.A.F. Component Battle H.Q. withdrew from Arras to Haazebrouck with G.H.Q. B.E.F.
	20	Back Component H.Q. opened at Hawkinge. R.A.F. Component fighter squadrons (Nos. 85, 87, 3, 79, 504, 607 and 515) reinforcing fighter flights, and one reconnaissance squadron (No. 13) evacuated.
	20-21	Germans in Amiens
	21	Germans in Abbeville R.A.F. Component Battle H.Q. evacuated through Dunkirk. Section remained at G.H.Q.
	22	Germans in Arras. Food supplies for B.E.F. flown from England.
	22-23	Withdrawal of B.E.F. to Franco-Belgian frontier
	23-24	Germans in Boulogne.
	24	German attack on Belgian army. Last R.A.F. Component squadron left France (No. 4 Lysanders).
	25	South Component H.Q. officially opened at Rouen Boos.
	26	Fall of Calais. Beginning of full-scale evacuation from Dunkirk: concentrated effort by R.A.F. to assist evacuation.
	27	Armistice requested by Belgians.
	31	French and British to be evacuated in equal numbers from Dunkirk. Evacuation period extended.
June	1	Evacuation to be by night only (from 1st/2nd June)
	2	B.E.F. evacuation complete.
	2-3	Withdrawal of A.A.S.F. H.Q. and units to Le Mans - Orleans area.
	3	Heavy German air attack on Paris. "Haddock" force established near Marseille for operations against Italy.
	4	"Operation Dynamo" completed.
	5	German offensive across Somme opened.
	7	Germans over the Aise. South Component withdrawn behind Seine.
	8	A.A.S.F. reinforced by Nos. 17 and 242 Hurricane squadrons from U.K. U.K. fighter squadrons ceased operating from French aerodromes.
	9	Rouen evacuated.
	10	Germans over the Seine. Italy declared war on Allies.
	11	Germans over the Marne. Whitleys from U.K. raided Tunis and Genoa. Haddock force prevented by French from operating.
	12	Surrender of 51st Division at St. Valery en Caux. Germans approaching Paris from Seine, Oise and Marne bridgeheads.
	12-13	Evacuation of Le Havre completed.
	13	Release from "no separate peace" obligation requested by France. Air Marshal Barratt instructed to prepare for withdrawal and possible evacuation.
	13-14	French forces defending Paris withdrawn to south.

June	14	Occupation of Paris.
	14-15	Withdrawal of A.A.S.F. to Angers.- Nantes - Rennes
	15	Bomber squadrons flew to U.K. (Nos.88, 103, 12, 142, 150, 226). Fighters remained to cover evacuation from St. Malo, Cherbourg, Brest, Nantes and St. Nazaire.
		Fall of Verdun. Frontal breach in Maginot Line.
	15-17	Headquarters and unit ground staffs evacuated.
	16	British offer of union with France rejected.
		M. Reynaud succeeded by Marshal Petain.
	17	Germans over the Loire.
		Fall of Belfort and Mulhouse.
		Armistice terms inquired by French.
		Loss of S.S. Lancastria.
		Move of Nos.17 and 501 squadrons to Channel Islands.
	17-18	Haddock force evacuated through Marseille.
	18	Departure of last R.A.F. squadrons from France (Nos.1, 73, 242).
		General de Gaulle's broadcast from London.
	19	Departure of Nos. 17 and 501 squadrons from Channel Islands.
	21	German armistice terms received by French at Compiègne.
	24	French armistice with Italy signed.
	25	0135 hours. Franco-German and Franco-Italian armistice operative.

Part 1

BEFORE THE WAR:

THE ANGLO-FRENCH

CONVERSATIONS.

For some time before the outbreak of war the British and the French had been engaged upon matters of naval, military and air collaboration. The views that were then put forward and the agreements that were then reached, though they were for the most part in somewhat general terms, throw considerable light on the operations which subsequently developed. Moreover, they exhibit clearly what sort of war the Allies thought they were about to face, and what respective contributions were to be made to the common cause. An account of these Anglo-French Conversations will thus provide the setting for the operational narrative which follows, so that the war as it happened may be instructively compared with the war as it was planned. For this purpose purely naval and military detail will be omitted; together with most of the arrangements for operations outside Europe, and attention will be focussed on joint strategy and air plans.

The Origin of the 1939 Conversations

The Conversations of 1939 between the British and French were not entirely a new thing, though they were a considerable advance on previous staff contacts. In fact, the move towards such collaboration may already be seen in the spring of 1936. On March 13th 1936 German armed forces moved into the demilitarised Rhineland zone, and thereby violated the Versailles treaty. The possibility thus arose that we should have to fulfil our obligations under the Treaty of Locarno - i.e. that we must assist France and/or Belgium if their frontiers were violated by unprovoked German aggression. Conversations between the British, French and Belgians were accordingly conducted under this head in London during the following month, but the British delegates were under specific instructions not to

/undertake

C.P. 110
(36)

undertake any fresh political commitment or guarantee of increase in our armed forces. The general question of French and Belgian security was not to be discussed, since such wider problems were to come up for consideration only if an "effort of conciliation" with Germany failed. In consequence the Conversations were of limited scope, being chiefly concerned with exchanges of information about strength of forces and administrative facilities. As far as the air side was concerned, the strength of the respective Air Forces and the availability of aerodromes was discussed, while other matters of technical detail were remitted for future examination by the Service attachés. Questions of air protection in port and assembly areas were discussed by the military staffs. During 1937 our air attaché in Paris pursued these contacts, discussing with Commandant Lorient, head of the Second Bureau, the state of Germany's air force and aircraft industry, and the selection of the most profitable bombing objectives in Germany.

C.O.S.
658

In December, 1937, the Foreign Secretary (Mr. Eden) advocated fresh and wider conversations between ourselves, the French and the Belgians. By now, in his opinion, "it would be possible to argue, that the effort of conciliation with Germany, (by which a Five-Power Pact was to replace Locarno) had failed."

Moreover, even to implement our obligations under Locarno, he considered that fuller plans must be made for the possible transfer of some of our Air Force to French or Belgian soil, the better to operate against Germany. The state of the French aircraft industry was also giving cause for great dismay, and full information on British production (which had been offered to the French by Mr. Chamberlain) might help to mend matters. The French themselves had repeatedly pressed for wider conversations. In regard to the Belgians, Mr. Eden then considered that a fuller discussion on the attaché level would be sufficient: for we had rebuffed an offer of wider staff conversations with Belgium in May 1936, and since October 1936 the Belgians had, under the guidance of King Leopold III, reverted to

X The French considered that this effort had already failed by April 1936, a few weeks after the proposal was first mooted.

C.O.S. 680
and
C.O.S.
228th meeting

C.I.D.
1405.B.

to a policy of pure neutrality. These proposals from the Foreign Secretary were resisted by the Chiefs of Staff, whose views were that the ordinary channels for exchange of information were sufficient, and that full staff discussions with the French might precipitate German hostility. They considered it politically inadvisable to conduct staff conversations with the French at a time when the Prime Minister was determined on an effort to liquidate the hostility of either Germany or Italy. The Cabinet at this time (February 1938) accepted the view of the Chiefs of Staff, though it also authorised confidential communications on a purely technical footing between the British and French Air Staffs on aerodrome and other facilities in France. Exchange of visits by officers of the two Air Forces was also approved. The Cabinet pointed out, however, that with the development of the long-range bomber our dependence on French aerodromes should diminish.

Cabinet 18
(38)

Conclusion 7.

Cabinet 19
(38)

Conclusion 4.

After the German occupation of Austria in March 1938, the Cabinet veered towards the Foreign Office attitude. It approved in principle that the proposed conversations between the British and French Air Staffs should be extended to Naval and Army Staffs, and should not be limited to the attaché level. The Chiefs of Staff, however, opposed such a development, and succeeded in restricting the scope of such conversations. In their opinion military and naval conversations were scarcely necessary, since the possibility of our sending an expeditionary force to the continent was slight, and at sea we could deal adequately with Germany by ourselves. Italy was assumed to be neutral, and Japan so committed in China that discussion of Far Eastern matters was unnecessary. The basic assumption of the proposed conversations was thus, that Germany alone would be the aggressor, and the "background" was to be not so much a German invasion of France as an attempted "knock-out blow" by the German Air Force against the industrial areas of Great Britain. Even on the air collaboration which thus remained a possibility, the Chiefs of Staff took a restrictive line, for they stated that our numerical inferiority was so great that we should be in no position to help France, save that any action to reduce the scale of attack on Great Britain would also benefit the French. The real point constantly before the minds of the Chiefs of Staff when they approved air conversations and opposed naval and military, was that our medium-range bombers of that time would operate against Germany more effectively from France than from Great Britain.

D.P.(P)24
C.O.S.

C.P.109
(38)

During the visit of the French ministers to London (April 1938) agreement was then reached on the scope of the projected Air Staff conversations.

/They

They were to cover interchange of information on present and future capacity; plans for the movement, maintenance and protection of a British Advanced Air Striking Force in France; and co-ordination of the air defence system of the two countries. Co-ordination in general was to be discussed on the assumption that the primary duty of each country was to provide for its own defence. On the insistence of M. Daladier it was also agreed that we should examine the possibility of despatching a military force to France. The French ministers also pressed for naval conversations, and the British ministers ultimately agreed that they had no objection in principle. These agreements were approved by the Cabinet, who also accepted a strong recommendation that any attempt by the French to raise the conversations above the attaché level should be resisted, at least in the early stages. The Cabinet also stressed that it should be made clear during the conversations that there was no commitment to send even two divisions to France.

Cabinet

22

(38)

Cabinet

26

(38)

Thus defined in scope, Anglo-French conversations on the attaché level began, while a parallel series of discussions on economic questions in war was also carried on. By the end of September 1938, plans were more or less complete for the despatch of two divisions to France (if necessary), but no plans had been made for their employment, on the ground that this would have committed us unduly to the French. On the air side, in the same way, and with the same qualifications, plans had been made for the despatch to France (if necessary) of an Advanced Air Striking Force. This was, as then planned, to involve twenty bomber squadrons at 16 I.E. each, though only ten could be sent if war broke out within a few months. A demand for ten main and ten satellite aerodromes had been framed, together with the host of other administrative and supply requirements. In fact, the broad framework of A.A.S.F. arrangements as they were ultimately carried out in September 1939, was prepared - the selection of the Reims area for the operational aerodromes and of Nantes for the base port being particularly noteworthy. It must be emphasised, however, that the programme of sending twenty bomber squadrons was not only not a definite commitment, but was also never presented as specific aid for the French army. The essence of the matter was one of

A.M. file
S.44953
Part I.

/range:

range: from France these squadrons (still to be kept under the control of Bomber Command) could hit harder than from England, and when these squadrons were replaced by the 'ideal' bomber of the future, with its long range, there would be no need to have British bomber squadrons in France at all. On other matters, such as the air defence system, arrangements were very incomplete, and were still proceeding. On the attitude of the French the impression of Air Commodore Dacre, who led a reconnaissance mission to Nantes and the Reims area during the September crisis, is worth recording: "I found the French Staff elated by our visit. They were most willing to give us every assistance and to give immediate orders for the carrying out of our wishes."

A.H.B.
I/F/89-9

C.I.D.
340th
Meeting
Minute 3.

The resolution of the September crisis naturally raised the question whether these discussions through the attachés should be either expanded or terminated. The Foreign Secretary was pressing that conversations were of little value unless Italy as well as Germany were assumed to be hostile, and the C.I.D. agreed that the whole matter of conversations should be reconsidered. Nevertheless, the C.I.D. and the Chiefs of Staff still resisted a French proposal that regular liaison visits by air officers should take the place of the then existing ad hoc system. When the Prime Minister and the Foreign Secretary went to Paris in November, 1938, however, sufficient controversial matters emerged for the need for wider conversations to be made plain. Not only was M. Daladier insistent on the necessity for far greater military support than two divisions, but the whole French theory of attack on Italy, as the weak point in the Axis, needed discussion. Moreover the accuracy of the French aircraft production figures particularly demanded investigation. It must be recalled, too, that though they had together just narrowly escaped being involved in war, Great Britain and France had at this date no concerted plan, either for command or for operations, whether by navies, armies or air forces. Administrative arrangements had been made for the possible transfer to French soil of two divisions and twenty bomber squadrons, but beyond that, little was concerted. The only thing that was beyond dispute was that there did exist our commitment under Locarno to aid France in the event of German aggression. Of what that aid was to consist, we had now given possible indications, but had made no definite promises. On how the aid was to be applied, no discussion at all had taken place.

Cabinet 3
(39)

In these circumstances, and following a French assurance that, if the main German attack fell on this country, French aerodromes would still be at the disposal of the R.A.F., the Foreign Secretary again urged that wider conversations should be undertaken.

/the

A.M. file
S. 44933
Part I
Enc. 117a

The Chiefs of Staff after the Munich crisis had also reached the view that if Italy as well as Germany were potentially hostile, conversations on a higher level would be needed. To this view the Cabinet on February 2nd 1939 subscribed, particularly endorsing the following sentences from the report of the Chiefs of Staff -

If we were compelled to enter such a war (i.e. against Germany and Italy in conjunction with Japan potentially hostile) we should be confronted with a position more serious than the Empire has ever faced before. The ultimate outcome of the conflict might well depend upon the intervention of other powers, in particular of the U.S.A. Nevertheless... failure to intervene might have such moral and other repercussions as would seriously undermine our position in the eyes of the Dominions and the world in general. We might thus be deprived of support, in a subsequent struggle between Germany and the British Empire..... failure to take up such a challenge would place Germany in a pre-dominant position in Europe and correspondingly lower our prestige throughout the world."

It thus followed that a German attack on Holland or Switzerland, besides the usual contingency of attack on Belgium or France, would now in our eyes constitute a casus belli. Hence the decision that Staff Conversations should be undertaken on a wider basis with France and Belgium, and that if possible, contacts should be initiated with the Dutch. The Chiefs of Staff were thus invited to report on and undertake conversations which it was recognised would result in joint plans and commitments far more binding than anything we had previously contemplated. Since the assumption was now of a hostile combination of Germany and Italy, with Japan also intervening against us later, discussion was to cover all likely fields of operations, including the Mediterranean and the Far East. The die was now cast: the procedure suggested by the Chiefs of Staff for the conversations was sanctioned by the Cabinet; and arrangements were gradually made from which inevitably there could be no drawing back.

C.O.S.
-838

The 1939 Conversations. General Strategy.

A.F.C. 30
C.O.S. 838
and
Cabinet 6
(39) 7.

The conversations of 1939 opened in London on March 29th. On the British side they were conducted by the Joint Planning Committee, for the Chiefs of Staff feared that, if they themselves had conducted the discussions, public alarm would have been caused, the French would have made "political capital" from the matter, and "precipitate action on the part of Herr Hitler" might have been provoked. The R.A.F. delegates were accordingly Group Captain J.C. Slessor, Director of Plans, and Group Captain H.H.M. Fraser, Deputy Director of Plans, while the air attache

/from

Cabinet 8
(39)
Conclusion
6(2)

from Paris, Group Captain D. Colyer, was attached to the delegation. The French air delegates were Colonel Rozoy and Colonel Aymé. Certain instructions were given to the British delegates. Of these, three particularly affected the air side - that a German land attack on France or Belgium would oblige us to despatch a Field Force to the Continent (for this would include an R.A.F. "Component"); that it was no part of our policy to initiate air attacks involving casualties to the enemy civil population; and that information of secret equipment, such as R.D.F., might be imparted to the French, as long as they agreed on our manufacturing what they might decide to adopt.

A.F.C. (J)
29
A.F.C. 7.
Part I

The first stage of the conversations (29th March - 4th April 1939) was entirely taken up with matters of general strategy. The details of this need not concern this narrative, but a broad picture will assist in establishing the degree of resistance which the British and French expected to impose on German and Italian aggression. The British and French papers on the strategic conception of the war were so close in viewpoint that it was possible to reach a series of agreed conclusions very rapidly. It was agreed that Germany and Italy would stake their chances of success on a short war, for they had not the same facilities as Great Britain and France for increasing their war potential during the conflict. It thus followed that the Allies, inferior in military and air strength but able to increase their war potential so long as they secured their industry and their sea communications from naval or aerial attack, should at first adopt a defensive position. During this period economic pressure would be sapping the strength of the enemy, while Allied diplomacy would be "directed to securing the benevolent neutrality or active assistance of other powers, particularly the U.S.A." It would also be necessary during this period to meet the German onslaught. This was most likely to come in the form of an advance through Holland, Belgium or Switzerland, or by heavy air attack against France and Great Britain. Italy was more likely to restrict herself to colonial operations, but the two axis powers would certainly wage a joint campaign against our shipping. To meet these threats, the Allies agreed that they would co-ordinate the British and French systems of air defence, and, if the Low Countries were invaded, would try and stop the enemy as far forward as possible. Belgium, however, could not be entered except by invitation, and the Allied chances of successful resistance would be greater if previous plans had been concerted with the Belgians. At sea, the Allies could interrupt German and Italian trade, while maintaining their own. Overseas, if an Italian attack developed against Egypt or Tunisia, the ally not attacked could relieve pressure on the other by striking from the opposite side. Rebellion could also be organised in Ethiopia. During the first phase of the war, as well as observing the provisions of the London Naval Treaty (1930) on submarine warfare, the Allies would not initiate air action against any but purely military objectives, and in particular the bombardment of Rome would not be undertaken except in the last resort as a reprisal.

The second phase of the war, as the allies envisaged it, would consist in the elimination of Italy. The

/necessary

necessary preliminaries for this were to deprive the Italians of their African Empire, and to build up considerable British land and air forces on the continent. In this phase the Allies would extend their air action to bombing industrial and economic objectives in Germany. After the elimination of Italy, the third phase could begin - the defeat of Germany. This, however, was regarded as a very stiff proposition - "in view of the magnitude of the reserves which would be employed, no date and no possible lines of action can be fixed for this phase."

These were the agreed strategic conclusions, and they present a clear idea of the allied action contemplated - to wait for the German assault, whether by air or by a land movement to turn the Maginot Line, and to contain it. During the period of waiting our preoccupations would be the increase of our armaments and forces, the exertion of economic pressure, the direction of our diplomacy to securing the co-operation of neutrals, (and in particular of the U.S.A.), and limited air action against purely military objectives. The German threat once held, we could pass in due time to the elimination of Italy, and ultimately, though within no foreseeable date, to the defeat of Germany. The British strategic memorandum which together with the French paper, supplied the basis for these conclusions, contained, of course, much in addition which was of significance for the future. Emphasis was already thrown on the importance to Germany of the Ruhr output and of Swedish iron-ore - pointers to the later 'strategic bombing' and the Norwegian campaign.

The British strategical memorandum also indicated in precise terms what British forces would be available for transfer to France. At the outset we could not send greater military help than two divisions - a figure which was obviously unsatisfactory to the French, and which was soon to be revised.* These two divisions were to contain three Army Co-operation squadrons as an air component. In addition to this, we should establish a "high proportion" of our air striking force in France. This, however, was because of the limited range of our medium bombers of that date; it was, in other words, a matter of operational convenience, and it was not contemplated that this was in any sense a sacred obligation.

It is also of interest to note the various first-line air strengths, according to the British estimate, in April 1939. They were as follows:-

* See below page 73-74

	"Long-Range" Bombers (i.e. over 350 mls. operational radius.)	Short Range Bombers.	Fighters.	Army Co- op. & G. P.	Reconn: & Naval Co-op. (excluding ship-borne aircraft)	Total
<u>Great Britain</u>						
Metropolitan	488		496	84	222	<u>1290</u>
Middle East (including Iraq, Sudan, Kenya, Aden, Mozambique)	84	92	42	20	8	246
India		48		48		96
Far East		24		4	10	38
<u>France</u>						
Metropolitan	336		466	324	324	<u>1450</u>
N. Africa & Levant	37	66	54	124	42	<u>323</u>
<u>Germany</u>	1580	320	1000 (including Naval shore- based aircraft)	300	500	<u>3700</u>
<u>Italy</u>						
Italy	444		450	225	274	<u>1393</u>
Libya & Dodecanese.	96		90	81	9	276
East Africa	120			18		138
Spain	72		108	18		198
<u>Japan</u>	208	418	429	189	99	<u>1343</u>

These figures, of course, by no means told the whole story, for first-line strength could be misleading without a knowledge of reserves. It was stated that Great Britain reckoned to provide a considerable reserve (almost 100%) in bombers, as did Germany, while Italy probably had not more than 35%. In regard to fighters, the British stated that they had virtually no reserve. The French figures were certainly liable to convey a false impression without qualification, for of the 356 bombers in Europe almost all were obsolescent in type, and could not be compared with the British or German force. The figure of 466 French fighters in France was subsequently corrected to 360 first-line aircraft and 106 for "local defence" (i.e. highly obsolete). In any case, however, the inferiority in Allied numbers was striking, for if the first-line Metropolitan strengths alone were considered, the position was that an allied force of 824 bombers, 856 fighters and 954 Army co-operation and reconnaissance aircraft was opposed to an Italo-German force of 2344 bombers, 1450 fighters and 1299 Army Co-operation and reconnaissance. If the Germans had reserves at 100% for their large bombing force, the position was obviously still more unsatisfactory than was indicated by first-line strengths. The British conclusion may in fact be quoted: "the Allied Air Forces are very greatly inferior to those of Germany and Italy in air striking power, judged on the basis of first-

line strength, and in April 1939 the position regarding Allied reserves will be most unsatisfactory." The facts were thus fairly presented: there could be no misconception in French minds of our air strength; and it was in fact an agreed conclusion that though the British, if not strong, were at least rapidly improving their air position, the unsatisfactory output of the French aircraft industry was one of the sources of allied weakness, just as was the length of time necessary to build up the British Army.

The British memorandum, then, made no attempt to gloss over unpleasant facts. In particular, it recognised the enormous danger constituted by Japan, intervention by whom would threaten our position not only in the Far East, but in the Mediterranean - a danger which the French did not rate nearly so high. If, in fact, Japan intervened, we were fairly clear that we could win the war only with the help of additional allies. If, however, Japan stayed outside the conflict, the position boiled down to this, - that "once we had been able to develop the full fighting strength of the British and French Empires, we should regard the outcome of the war with confidence."

The first stage of the conversations was, as it happened, roughly coincident with some extremely important events. After the decision to hold conversations had been taken, but before the first meeting, Germany invaded Czechoslovakia and laid the Munich agreement in ruins. The British response was very quick: on March 29th 1939 (the day on which the conversations opened) the decision was taken to double the Territorial Army; on March 31st we extended a guarantee to Poland; and in April the Military Service Act, introducing conscription, was before the Commons. It thus followed that our strategic position and our military commitments needed fresh discussion with the French, and this was carried out in the second stage of the conversations, when they were renewed on April 24th. The details of the revised Field Force need not concern this account, save to note that, as more divisions were sent abroad, more army co-operation squadrons would be needed in the Air Component - a subject which was to cause much fierce debate between War Office and Air Ministry. The implications of Poland as an ally, however, must be made clear.

A.F.C.6

There was no disposition to regard the Polish air force in an unduly optimistic light. Its 30 long-range bombers and 200 bomber-reconnaissance aircraft would probably compel Germany to make arrangements for the air defence of Berlin, Stettin (with its fuel reservoir) and the power-plants of Eastern Germany, and it was thought that Germany might be compelled to keep 20% of her first-line fighter strength in the East. This, together with a similar dispersion in her A.A. defences, would be a welcome reduction of her power to meet British and French air attack. Any threat from the Poles to Germany, however, would be very short-lived unless the U.S.S.R. helped Poland with aircraft and pilots. It was the Polish contribution on land which was regarded as really important, for though Germany could certainly eliminate Poland

A.F.C. (J)
56

(and Rumania) by concentrating in force against her, the number of German divisions required to hold down Poland and safeguard against possible Russian attack would be little less than that required to conquer her. Again the importance of the U.S.S.R. was recognised, and it was assumed by the Allies that she would be a friendly neutral to the extent of supplying Poland with armaments. It was acknowledged that neither by air, land or sea, nor in the supply of armaments, could we or the French afford Poland (and Rumania) direct support against a German invasion.

The real power behind an Eastern front which would hold was thus seen to be the U.S.S.R. and not Poland, but this was emphasised more by the French than the British. The British view was that the Russian Army, for all its 200 divisions, was incapable of operating offensively outside its own country, and that it was handicapped by purges, political commissars and poor communications. The Russian Air Force too, in spite of its numbers, had many weaknesses - the Eastern force could probably not reinforce the Western (or vice versa), reserves were about 50% of first-line strength, most of the bombers, though of long-range, were slow and obsolescent, and the fighters were not up to British or German standards. It would be true to say that, though the British papers clearly recognised the vital importance of the U.S.S.R. as a friendly neutral for the constitution of a durable Eastern front, they placed equal or greater emphasis on the desirability of Turkey as an ally.

These, then, were the broad conceptions of the war envisaged by the allies. The Polish alliance made, in fact, very little difference. We did not think we could save Poland from being overrun (though we could restore her after the allied victory), but we did think that the military contribution of Poland - and even of a conquered Poland - would be very useful. It could make, however, no alteration in our basic strategy - the defensive, during which we gathered allies and resources and imposed economic pressure on the enemy, followed by the offensive against the Italian colonies, Italy, and, at long last, Germany.

FOOTNOTEEstimate of Russian Air Force.

Type of aircraft.	West of Lake Baikal	East of Lake Baikal	Total
Long range bombers	990	216	1206
Bomber reconnaissance & ground attack	1283	373	1656
Fighters	983	341	1324
Flying Boats	105	96	201
	3361	1026	4387

The 1939 Conversations. Air Details.

The second stage of the conversations dealt first with the revised political hypothesis consequent on the guarantee to Poland, and secondly with the broad outline plans of operations in the several prospective theatres of war. As a sequel to the London meetings of this stage there were further contacts for discussions on chemical warfare, and conferences between the allied commanders in different parts of the world, viz: Singapore, Aden, Jerusalem, West Africa, Kenya, Rabat and Central Africa. Each of these conferences produced results which, being concerned with extra-European operations, will not be examined here, but which formed a most important part of the Anglo-French projects. The examination which follows concerns the various heads under which Franco-British collaboration in Europe was discussed during the second stage of the conversations - i.e. in the London meetings of April 24th-May 3rd, and in subsequent communications.

The Collaboration of British bombers with the French and British armies and the French Air Forces in delaying a German advance through the Low Countries by attack on the German armies and their supply services.

It had already been agreed in principle, during the first stage, that should the Germans invade the Low Countries the object of all our available bombers should be to contribute to the success of the battle on land. This was now elaborated into a statement that we "should regard collaboration with the French Army and Air Force in the land battle as the primary commitment of the British Bomber Command during any critical phase of the invasion." An agreed conclusion was framed to this effect.

It was easier, however, to agree on this matter of principle than to agree on how the principle should be applied. The British had indicated that, though there was every intention of co-operating wholeheartedly, too much was not to be expected of British bombers in stemming an invasion of the Low Countries. Nevertheless we agreed with the French that some delay could be imposed by direct attack on columns on the roads and upon defiles through which the columns must pass. The best targets, in our view, would be the bottle-necks caused by the German need to cross the Maas and the Albert Canal. The selection of a few points here would include all the rail crossings, which were also important focal points in the road system; and it was considered that if these bottlenecks could be closed by bombing, in conjunction with demolition, the remaining road crossings might not be sufficient for the passage or maintenance of the German armed forces. Within limits, we regarded it as immaterial whether attacks were made on the enemy troops or on their supply services - the best delay would in effect be obtained by attack on the line of the obstacle which, at the moment, produced the most serious bottle-necks. What we emphasised however, was that a general attack on German rail communications (as opposed to specific road rail bottle-necks) could, with the available bomber forces, impose only a very slight delay. However, we recognised that the general choice of objectives

A.F.C. 14.

A.F.C. 25
Annex 5
Section A.
A.F.C. (J)
63
A.F.C. 14

objectives for all bombers engaged in the land battle must rest with the French Commander, and great importance was naturally attached to the arrangements by which his wishes would be transmitted through the British Air Mission to H.Q. Bomber Command.

A.F.C. (J)
51

The French for their part considered that mass air attack on German railway communications would be most profitable in imposing delay during a period of concentration. To them, road transport, which was a smaller and more flexible target, was an object of secondary importance. The best results during a period of concentration would be obtained by attacking railways not at permanent "sensitive points" but along the open track at localities away from large centres. Such an attack, the French contended, could paralyse traffic in a given area, particularly if it were supplemented by attack on road objectives at obligatory points of passage. In this way a specified zone could be isolated from reinforcement. As a practical plan to stop German concentration against the Low Countries, the French suggested the creation of two such barriers. The main barrier would be created East of the Rhine, isolating the Ruhr from its communications with North and North East Germany, and cutting the lines which lead to the Rhine bridges between Cologne and Coblenz. To do this it would be necessary to wreck eleven main lines and ten secondary ones. Another barrier should be created West of the Rhine, cutting the lines from the Middle Rhine to Luxembourg and the Saar, and to do this it would be necessary to wreck seven main lines and five secondary ones. Thus in all thirty-three lines of communication would have to be wrecked: but for effective wrecking it was necessary to cut each line in three places, and in consequence ninety-nine points would have to be cut (and kept cut) during the whole period of concentration.

A.F.C. (J)
95

The British disagreed profoundly with this French railway plan. It was pointed out to the French (and accepted by them) that Allied air action could take place only after an act of aggression by Germany, and that by then the German forces would already be concentrated on the Belgian and Dutch frontiers. Action against railways East of the Rhine could thus be directed only against supply and maintenance services. Even if the main German forces were still East of the Rhine, however, the British maintained that attack on the railways would impose but little delay. The subject was examined in great detail. The British produced figures (based on an estimate of 80% of the aircraft employed reaching their objective, and securing 15% of direct hits with their bombs) which shewed that to effect one breach it would need a minimum of six medium or three heavy bombers. Such a breach, according to British railway experts, could be repaired in an average of four hours. Since the French plan assumed the creation of ninety-nine points of rupture, the force needed to carry this out, and to keep the lines broken, would obviously be far beyond the united capacity of the British and French Air Forces. In fact, if the whole forces of Bomber Command were used, their total effect in the first seven days of the war would be to cut and keep cut between nine and fifteen railway lines. When to this prime factor was added the additional disadvantages that accurate attack could only be made during

/daylight

daylight or in the bright moon period, that the railway system of North West Germany had a large reserve carrying capacity, that roads and waterways provided good alternative means of transport in the area, and that an attacking aircraft would have to pass through the strongest German fighter and A.A. defences, the impracticability of the French plan became manifest. Moreover, as 85% of our bombs would miss, in a week over a thousand tons of bombs would be entirely wasted, since there was little of value to damage in the neighbourhood of open track. If railways were to be attacked, the British considered that far better results would be obtained by concentration on rail centres, where the "near misses" would damage industrial works, repair shops, etc. and where the railway personnel would be affected. Such attacks, however, might be precluded by governmental instructions. In spite of all this, however, the British were prepared to admit that there might be occasions for attacking the open tracks, as when German divisions were being rushed up to exploit a success or restore a reverse, and they had accordingly scheduled some possible objectives (bridges, embankments, and cuttings) between the Rhine and the western frontiers of Germany.

A. F. C. (J)
84

The French, though probably not convinced on all aspects, admitted that their projected operation would certainly lose much of its point if the German forces were already close to the western frontiers of the Reich. They also admitted that the plan would absorb almost all of the allied bomber effectives and that they themselves had no suitable bombers for the operation. If the Germans were already concentrated West of the Rhine when bombing operations began, the French were of the opinion that attack would best fall on columns on the march and on motorised units, and could later be turned against the railways to hold up supplies. This was a perceptible advance towards the British viewpoint, except that we had emphasised attack on road and road-rail bottlenecks (in particular as they were approached by the heads of the enemy columns) rather than attack on columns irrespective of their position.

A. F. C. 25
Annex 5
Section IV

The railway project was certainly the most hotly debated of the possible plans for stemming a German advance into the Low Countries. Except on this one topic the French and British views were not greatly divergent, and it was possible to reach several agreed conclusions to the following effect. The Allied bomber forces "should be directed against those objectives which would cause the most immediate delay to the German advance." Such objectives might be either "permanent" (such as village defiles and supply depots) or "fleeing" (such as motorised columns). The "permanent" objectives would be the most profitable targets to attack when German troops first crossed the frontier, and bombardment of these would produce more valuable results than a concentrated effort against railways East of the Rhine. The problem of avoiding civilian casualties in Belgian villages, however, would have to be taken seriously into account. Operations against "fleeing" objectives would obviously depend for their success on co-ordination between the headquarters of the French North Eastern Army, the French Air Force, and British Bomber Command, and on the information services.

/Adequate

Adequate intelligence and signals arrangements must be made, and some form of central intelligence bureau in the field was essential. Organised reconnaissance over the whole theatre in Holland and Belgium would be provided by the French until their effort could be supplemented by British aircraft.

The French Air Staff also undertook to prepare a map shewing "permanent" objectives along the Belgian and Dutch roads, together with code letters, numbers and descriptions for each target. These maps were despatched after the second series of meetings in London. The selection of targets lighted principally upon places where attack was likely to hold up motorised columns, such as cross-roads at village exits and obligatory river bridges in villages. These were approved by the British, who also accepted the French system of designating targets, with the modification that true bearing was to be given instead of compass point. This system was in fact used throughout the battle during May and June 1940, a "permanent" target being referred to by its code reference - e.g. AX2 - and a freshly selected target by reference to a nearby "permanent" objective - e.g. 100° AX2 10 miles. To decide that German columns, if they appeared, should be attacked at specific points was, however, much easier than to decide how best to attack them, and what degree of success was likely to attend such efforts. On this technical problem study was far from advanced - inevitably, in conditions of peace, for the nature of the columns to be attacked, and of the aircraft likely to attack them, differed radically from those of any earlier period of operations. The matter, was of course, mainly one for individual study by Bomber Command; and an account of the progress reached in this direction will be found in the Air Historical Branch narrative devoted to metropolitan bombing operations.

II. "Action against the German air force and its supply and maintenance organisation (including the aircraft industry) with the object of reducing the scale of attack against France and Great Britain, or against the French armies advancing into Belgium"

On this subject it was not difficult to reach agreed conclusions. General attack on German aerodromes was not likely to be profitable and could be justified only when it was of vital importance to hinder enemy bomber forces. It would be a costly business in view of the high scale of aerodrome defences, the large number of possible aerodromes and the disparity in numbers between the Allied and the German forces. If, however, military necessity dictated attacks on German aerodromes the French should attack to the South and the British to the north of a line Saarbrücken, Wiesbaden, Frankfurt, Eisenach. Each air force would be responsible for reconnaissance in its own zone, though each air force would also retain the right to use the air of the other zone in case of necessity (e.g. for evasion, special missions or meteorological reasons).

For an indication of how indeterminate opinion was on this subject in April 1939 see a letter from Sir H. R. Ludlow-Hewitt at 3a in A.M. file C.S. 1132.

A divergence in view appeared on the topic of bombing aerodrome surfaces. The French maintained that where the aerodrome defence was so active that very precise bombing was impossible, good results could be obtained from a general attack on the aerodrome surface. The British preferred to leave the choice to the commander on the ground or in the air, but in general held that attack on surfaces was of little use, and that the only profitable targets would be the enemy aircraft, equipment and hangars.

In general it was clear that the allies pinned no great faith to attacks on aerodromes, though the French were more optimistic about the subject than the British.

III. "Action against German war industry, especially in the Ruhr"

A.F.C. (J)
24

This important topic was the subject of no printed communications in the A.F.C. and A.F.C. (J) papers, but it was raised in a general way, and was dealt with by the Air Staffs. In the first stage of the conversations the British had already suggested examination of the merits of bombing enemy oil refineries and stocks of petroleum, the more so because we believed we knew the exact position and capacity of every synthetic fuel plant in Germany and Italy. The subject naturally linked up with the bombardment policy of the Allies, and it was recognised that attacks on this type of target could not be made if the enemy confined his attacks to purely "military" objectives.

At this stage of the allied discussions, the oil project was presented by the British as a suitable plan for the second phase of the war. During the first phase we should attack only "military" objectives, but if the enemy action had released us from restrictions we could then begin this type of attack. It is interesting to note that there was apparently no suggestion when the subject was raised, that this was a policy to apply during the period of German onslaught. Its suggested function was that during the second phase it might make the Germans unable to resist the ultimate allied land offensive.

A.F.C.
(J) 72
A.F.C.
25
Annex 5
Section 4

No joint conclusions seem to have been reached at this stage, save that in the event of allied attack on German industry, objectives should be allotted to each air force on the basis of proximity. Another suggestion, however, was that attacks might be divided on a basis of industrial category - e.g. one force might attack all the scheduled aluminium plants, the other force all the plants of another important war-industrial product. The division of tasks would naturally be proportionate to the available strength of each bombing force at the time.

In general, discussion of this topic seems to have been in its infancy, and this was naturally so, for the initial bombardment policy agreed on by the two countries would have precluded such attacks. Moreover, the French were naturally most concerned with action that would hold up a German invasion of the Low Countries, and it does not appear that we argued before September 1939, as we argued afterwards, that attacks on German oil targets would contribute to this end. The whole topic was pursued more fully after the outbreak of war, and an account of its development will be found below.

- IV. "The selection of appropriate "military objectives" (in the narrowest sense of the word) for attack in the event of German initial action not taking the form of unrestricted air attack."

A.F.C. (J)
72
A.F.C. 25
Annex 5
Section 4.

The British view on this subject was that such objectives should be selected by the Air Staffs in consultation with the General Staffs. A number of statements, however, were offered for the guidance of the Air Staffs. These included Article 24 of the Hague rules. In this probably the most important clauses were those which stated that bombardment of cities, villages and buildings not in the immediate neighbourhood of the operations of land forces was prohibited, and that if military works, military establishments, military lines of communication and arms factories could not be bombed without indiscriminate bombardment of the civilian population, the aircraft must abstain from bombardment. A Foreign Office telegram to Tokyo (17th August, 1938) was also quoted, to the effect that there must be a reasonable prospect that any bombs dropped would hit their objective, and that the bombing of civilian centres in the hope of hitting, *inter alia*, a military objective should be definitely inadmissible.

These were guiding counsels on the most purely restrictive side. On the other hand, two other guiding statements suggested wider possibilities. The first was from a speech by Mr. Chamberlain (21st June 1938). "Targets must be legitimate military objectives and must be capable of identification. Reasonable care must be taken in attacking these military objectives so that by carelessness the civilian population is not bombed. These are three general rules which we can all accept and which we do accept, but it is obvious that when you come to put them into practice they give rise to considerable difficulties." The italicised clauses were the bare truth, but they were also a salutary warning and from them it might be seen that the strict application of the Hague rules was acknowledged to be no easy task. The second of these statements opened still wider loopholes. It was from a report by the Joint Planning Sub-Committee (October 1938): "Most of a country's industry and a great part of the population * must be regarded as the armament industry of modern war." If most of the population was itself the armament industry the Hague rules could obviously be turned inside out.

It was with these statements in mind - some based on international agreement, others on factual realism - that the Air Staffs

were to select their purely military objectives. In any case, it was agreed between the two delegations that their views on legal objectives and on considerations of expediency were in unison. Expediency, it was admitted, must largely depend on the situation at the time and on a careful consideration of all factors - for example, it would be necessary to balance military necessity and political repercussions if there were a question of bombarding Belgian villages to delay a German advance.

V. Anglo-French Air Action in support of Poland.

A.F.C. (J) 92. As it had been generally agreed that no direct help to Poland could be given by France and Great Britain on land or sea, the question of air support assumed particular importance. The prospect that Germany's main offensive might be directed against Poland, while she stood entirely on the defensive in the West, raised the question whether in such a case our air attack might be extended to other than purely "military" objectives. A British paper discussed the various courses of action open to us. If we despatched the first contingent of the Field Force and the A.A.S.F. to France, but initiated no offensive action in the air except against warships at sea we should certainly not relieve Poland. In such a case Germany would conduct not a two front war, but two successive one-front wars, and she would gain territory and commodities which would neutralise the effects of our blockade. If, in addition to taking the above preparatory measures, we attacked "military" objectives (e.g. the German fleet and its bases, the Luftwaffe establishments, the German Army in the west), we should at least make it clear to neutrals that we meant business, but again we should not relieve Poland to any appreciable extent. As a third course, we might extend our air action to stocks of oil fuel and synthetic oil plants. This would contain greater German air forces in the West, and would be particularly valuable if the Polish (and Russian) air forces also bombed oil targets. Even this, however, would not relieve pressure on Poland at the outset, and it would certainly invite attack on our own vulnerable oil stores, and throw us open to the charge of bombing civilians. Finally, we might "take the gloves off" from the start, and attack all objectives best calculated to reduce the enemy's war effort (e.g. power and ball-bearings as well as oil). Militarily this might be the most effective, but the result on neutral opinion and in consolidating the German people under the Nazi regime would be unfavourable.

In sum, the British Air Staff views, though they decided for no definite course, displayed a propensity to regard attack on oil objectives

as the plan with the greatest advantage. It was made quite clear, however, that none of these courses could save Poland, and that the ultimate fate of that country would depend not on our ability to relieve her at the outset, but on our ability eventually to win the war. It was evident that we could help Poland directly only in the air, and that this help could not in itself be decisive. Nevertheless it was a very important subject of study, for on which course was adopted depended the whole of our bombardment policy - whether we did, or did not, choose to initiate attacks in which large numbers of civilians would perish. A sentence not unworthy of Gibbon summed up the view of the British Air Staff on this matter: "The British Staff would observe that this delicate and difficult problem may well be solved for us by the Germans, who are perhaps unlikely to refrain, for more than a limited period at most, from action that would force the Allies from all legal instructions."

VI. "The problem of Anti-Aircraft Protection of British bases, assembly area and aerodromes in France."

A.F.C.
17.

A.F.C. (J)
77

At the end of Stage 1 of the Conversations a special message had been received from General Gamelin. It conveyed his view that the British should assume responsibility for the anti-aircraft defence of all British forces operating in France, both by fighters and by anti-aircraft guns. By June 1939 the British Chiefs of Staff had approved a Memorandum in reply to General Gamelin's request. This recalled that during 1938 the French had promised that two groups of mobile guns would cover the disembarkation and assembly of the Field Force: that specially reserved air forces would have the initial duty of reinforcing air defence at the ports; and that the French would be responsible for defending the aerodromes of the A.A.S.F. against air attacks. The existing British arrangements were then detailed. In fighters, these amounted to one squadron with the first ('intermediate') contingent of the Field Force, and three more when the full regular Field Force was able to go overseas. In anti-aircraft guns, they amounted to 3 heavy A.A. regiments (of 24 x 3" or 3.7" guns each), 3 light A.A. batteries (of 12 x 2 lb guns each), 2 light A.A. regiments (each of 12 x 2 lb. guns + 48 light automatics, but eventually to be of 36 x 2 lb. guns each) and 1 searchlight battalion.

These forces we admitted to be insufficient, but we stressed that we were far short of the standard required to protect the United Kingdom itself from a "knockout blow" in the air. We

/could

could, in consequence, not be a sufficient argument of increased. Increase of A.A. units in the Field Force had in fact already been decided upon, but it would take several months before the Field Force could be made independent of French help, and any further despatch of fighters was a subject for decision by the Cabinet. The situation was complicated by the fact that none of the fighter squadrons except the one allotted to the intermediate Field Force was on a mobile basis, and that the major proportion of the Territorial A.A. units was equally immobile.

The French were told, however, that we were studying both a short term plan (1939) and a long-term plan (1940) for increasing the number of our fighters and guns available for France, should release from the defence of the United Kingdom be possible. The short-term plan, in terms of fighters, was that we should send four squadrons instead of one, as soon as possible after the outbreak of war (to be in action 23 days after mobilisation, or in an acute crisis 2 or 3 days after mobilisation, but at greatly reduced efficiency). The long-term plan was simply a promise to reduce the period of 23 days for the four fighter squadrons, and to guarantee that the release of further squadrons would be studied. For ground defence the short-term plan was that 1 (or possibly 2) extra A.A. regiments might be available, but that we should still need the 2 mobile French A.A. units, and the benefit of the general A.A. defence of the Reims area for the A.A.S.F., who would have no direct protection other than their own machine-guns. The long-term plan for ground defence was that we should assume full responsibility, though a great deal in the way of French help in the disembarkation and assembly periods would still be necessary.

A.F.C. (J)
85
297

The French expressed satisfaction with this Memorandum, and on the understanding that all efforts would be made by us to implement the 1940 programme, they renewed the assurances they had made in 1938. Later on (in July, 1939) General Gamelin pressed Lord Gort, at a meeting in Paris, to agree that our air defence units should be sent over during a period of political tension. Lord Gort replied that it would be impossible to send them over before mobilisation, and that the whole subject was a political matter, but that he would bring the topic forward. Affairs were still in this state when war broke out - i.e. we had promised by 1940 to arrange as far as possible for our own A.A. defence, and to send four fighter squadrons (and possibly more) for the protection of our own forces, should the situation in Great Britain warrant their release.

A.F.C. (J)
90.

VII. Air Co-operation against Italy.

The question of air action against Italy and her colonies was pursued throughout the second stage of the Conversations, both in London and during the subsequent Anglo-French meetings at Aden, Rabat and Jerusalem. The French had pressed for further British aircraft (particularly fighters) to be sent to Northern

A.F.C. 7

/France

A.F.C. 37
Part II
Annex I.

France in order that French Air Forces could move to Southern France for an offensive against Italy. They were also keen that British air forces (or French, if the British reinforced Northern France) should be sent to Tunisia, for action against South Italy, Sicily, Sardinia and Libya. The possibility made some appeal to us, particularly in that offensive operations from Tunisia might provide the answer to the air threat against Malta. We ultimately informed the French that at the moment we could not release further aircraft from Great Britain, but that if the most urgent need in war proved to be the reinforcement of Tunisia, we should reconsider the matter, preferably by releasing French squadrons from Northern France.

A.F.C. 37
Part V.

Various actions were planned in the African theatre both to meet possible threats from Libya and to disrupt the Italian Empire, but the details of these need not be recounted here.

VIII. The Air Aspect of Chemical Warfare.

A.F.C. (J)
42

During the second stage of the conversations there was an exchange of opinion on the training and tactics necessary for chemical warfare from the air. The details are unimportant, since the subject proved to have no relevance to the campaign as it actually occurred in 1940, beyond the fact that the allies adhered to their agreed policy of not using gas except as a retaliatory measure. It is worth while noting, however, that during these discussions the French revealed themselves as more expectant of German gas attack than were the British, and at the same time far less prepared to deal with it.

A.F.C. (J)
57
and
A.F.C. 28

IX. Arrangements for Liaison and Command.

A.F.C. 12

Arrangements had already been made by the Air Ministry for the despatch of two air liaison missions to France in the event of war, and their location had been agreed with the French. No. 1 Mission (to be led by Air Marshal Barratt) was to represent the Chief of the Air Staff, and was to be located at the H.Q. of General Vuillemin, who was then Chief of the French Air Staff, but who would become Commander-in-Chief of French Air Forces on the outbreak of war. No. 2 Mission (to be led by Air Commodore Don) was to represent the A.O.C.-in-C., Bomber Command, and was to be located at the H.Q. of the 1st French Air Army (the Air Army of the North East, commanded by General Mouchard), which would control the bulk of the French bomber force. These arrangements were in fact applied at the outbreak of war, but were altered by the institution of the B.A.F.F. Command in January, 1940.

A.F.C. (J)
61
and
A.F.C. (J)
75

The French for their part proposed to send a Liaison Mission to Great Britain in time of war or crisis, consisting of one General Officer (or Colonel) from each service department, and one representative of the Ministry of Colonies. The principal air member of this (Colonel Rozoy) would study the intentions of the Chief of Air Staff in England, just as Air Marshal Barratt would study those of General Vuillemin in France. The French Mission would also be charged with wider duties than individual departmental questions, for they would study problems of higher strategy and prepare material for the High Command. The Mission would be distinct from that which in peace time was part of

the French Embassy, which would also continue its activities in war. It was later agreed that French air representatives should also be attached to Bomber Command Headquarters. These arrangements were in general carried out in September 1939, but the scope of the French missions was still very ill-defined at that date: in fact, more time seems to have been given to the difficulties of routing the aircraft carrying the Frenchmen than to the question of what precisely the Missions were to do when they got here.

A.M. file
S. 49910.

A.F.C. (J)
35

In regard to air command, the arrangement at this time proposed by the British was that the A.O.C. Air Component would be under the orders of the G.O.C.-in-C., British Expeditionary Force. He in turn would be subordinated to the French C-in-C., providing that he was at liberty to appeal to the British government before executing any order which appeared to him to imperil his army. The A.O.C. Advanced Air Striking Force, however, should receive his orders from the A.O.C.-in-C., British Bomber Command (who, it will be remembered, was to be represented at the headquarters of the French North Eastern Army). A slightly revised form to the A.A.S.F. proposals was given in the third stage of the conversations, just before the outbreak of war, and was to the effect that the A.A.S.F. would receive its operation orders from the A.O.C.-in-C. British Bomber Command, but would conform to the administrative and disciplinary regulations of the Army Commander in whose area the force found itself. It was agreed between the delegations that the "close liaison" between the British Air Staff, the A.O.C.-in-C. Bomber Command and the French High Command should make it possible to meet the requirements of the French generalissimo if Bomber Command was concentrated in support of land forces in battle on the western front. "Alternatively, should circumstances arise, such as a comparative lull on the land front, arrangements for the collaboration of French Air Forces in the plans of the British Bomber Command would similarly be made through this liaison."

A.F.C. (J)
107

Various proposals for command were also studied for the overseas theatres of operations.

XI. The administrative arrangements necessary for the reception and maintenance of British air forces in France.

This subject had been studied already in 1938², and arrangements had since then been continuously pursued, both through the Air Attaché in Paris (Group Captain D. Colyer), and by means of special visits. The reconnaissance mission of Air Commodore Dacre during the September crisis of that year had resulted in closer contacts and in an alteration of No. 1 Bomber Group H.Q. establishment. No. 1 Bomber Group H.Q. was designated for control of the A.A.S.F. in war, and the two officers (Wing Commander Dearlove and Squadron Leader Tyzack) who were added to its staff as the result of Air Commodore Dacre's recommendation, were charged with preparing detailed administrative arrangements for the move to

A.M. File France in close conjunction with W.O.3. at the Air
S.44933 Ministry. This had enabled all arrangements to be
Parts I - IV well advanced by the time of the Anglo-French con-
and S.D.107 versations.

It is unnecessary to catalogue the exact details of the administrative plan on which agreement had been reached by March 1939, and the degree to which this was rounded off by the time of the outbreak of war. The British officers most concerned with negotiations on routing recognition, supply, storage, maintenance, signals, details of air defence co-ordination, ancillary services, and so on, were, in addition to those named above, Air Commodores Bottomley and Park, Group Captain Stevenson, and Wing Commanders Carter, Kingston Mc Cloughy, Reeves and Theak; and the full progress of arrangements may be studied in the four parts of Air Ministry file S.44933. The final administrative plan appears in S.D. 107. In addition to the manifold arrangements to come into effect at the outbreak of war, various communication links were developed in advance of hostilities particularly to Bomber and Fighter Commands, while on a higher level, agreement was reached on the construction of a new cross-channel cable via Jersey.

Perhaps the most interesting detail was the laying down, in May 1939, of a stock of British bombs and pyrotechnics in the Reims area - a transaction which was disguised as a sale to the French. Administrative planning with the French for the reception of the Air Component, naturally followed some distance behind that for the A.A.S.F., in view of the late date of the decision to send the Field force to France; but the subject did not involve the same difficulties as the A.A.S.F., since the Air Component would be within the normal framework of the Army supply and communication system.

The essence of the Western plan, as far as it concerned the moves of the R.A.F. (in the latest version before the outbreak of war) was as follows. During Phase I, i.e. from 3 to 10 days after mobilisation, the first echelon of the A.A.S.F., consisting of H.Q. No.1 Group and ten bomber squadrons organised into five wings, would move over to the Reims area; and the R.A.F. Component fighter wing of four squadrons would move to the B.E.F. area. During Phase II - i.e. 10 to 18 days after mobilisation - the first flight of the second echelon of the A.A.S.F. would follow. The complete second echelon was to consist of H.Q. No.2. Group, together with ten more bomber squadrons, also organised into five wings, but only half of this was to proceed in Phase II. During the same phase the Air Component forces destined for work with the First Corps would also proceed to France - namely an Army Co-operation Wing of three squadrons - together with the strategic reconnaissance wing of two squadrons. Air Component H.Q. would also go overseas during this period. During Phase III - 19 to 26 days after mobilisation - the second flight of the second echelon of the A.A.S.F. would cross the Channel, while the balance of the Component forces - an army co-operation wing of three squadrons - would go to join the Second Corps. The whole plan envisaged the transfer to France, within 26 days of mobilisation, of twenty bomber squadrons in the

/A. A. S. F. :

A.A.S.F.: and two bomber-reconnaissance squadrons, six army co-operation squadrons and four fighter squadrons in the Air Component.

XI. The state of French aircraft production.

A.H.B.
IF/90/1
(S.4c)

A.M. Files
CS. 1376
and
S. 1703
(for whole
subject)

This topic was not an item on the agenda for the delegations, but it was discussed in meetings between the Secretary of State for Air (Sir Kingsley Wood) and French Air Minister (M. Guy le Chambre), and by attaché contacts. The first of the meetings between the two ministers was on April 4th 1939 - i.e. during the first stage of the general conversations. British and French production representatives were also present, including Air Marshal Sir Wilfred Freeman (Air Member for Development and Production). The Chief of Air Staff (Air Chief Marshal Sir Cyril Newall) also attended. Sir Kingsley Wood began by examining the current French Plan V, which visualised a production of 1,800 aircraft between April 1938 and March 1939. Of these it appeared that only 716 had actually been produced. The Plan also visualised the production of 3,000 aircraft in the following year, but the existing rate of production was only a 100 a month, rising perhaps to 150 a month in the summer of 1939 and 200 a month in the autumn. Sir Kingsley Wood stated that in the British opinion the French had not grasped the implications of larger scale production - e.g. the necessity for placing large orders well ahead - and he then made concrete proposals for improvement.

M. Guy le Chambre, in reply, explained that in 1938 the French Air Force had consisted of 1200 machines, which were out of date, while a further 5000 or 6000 obsolete machines could have been used for certain military purposes. The fighters were capable of only about 240 m.p.h., and the bombers were too slow to be of use except by night or under cloud cover. The scale of production was then 35 to 40 a month, and the raw material position was unsatisfactory. To reorganise the industry, it had been necessary both to change the types and increase the rate of production. M. le Chambre explained that the figure of 1800 aircraft of Plan V between April 1938 and March 1939 was only a goal to be reached under optimum conditions. In fact, by March 1939 400 aircraft of this plan were actually in service. The production figure, however, was now increasing faster than Sir Kingsley Wood had suggested - in March 1939 107 operational machines (and 90 trainers) had been produced, by April this figure would become 130-150 operational aircraft, by May 180, by June 200, and by August 300. The scale would then remain constant at 300-330 machines a month, which was the maximum that could be afforded under the service grant. This, M. le Chambre admitted, was not as large as it ought to be, but the maintenance of the army imposed a severe strain on the country's resources. On this plan, by the end of 1939 the French hoped to have 3000 modern aircraft, and by the end of 1940 about 4,500. In addition to

made up as follows:-

2000 fighters.

1,365 bombers (including 655 big bombers and 120 dive-bombers)

1,265 army co-operation (of which prototypes were still awaited)

this some long-range fighters were to be developed for escort work, for the French (unlike the British) had now decided that fighter escort would be necessary for bombers. The French had also placed orders in America for 100 Curtis fighters and 200 Glen Martin and Douglas bombers.

It was then agreed that M. le Chambre would furnish data of French aircraft factory floor-space, labour available etc. by which we might make an estimate of possible French production; that the French would consider the purchase of 200 Battles and 105 trainers from this country; that we would consider the possible supply of airscrews and of Rolls-Royce Merlin X engines to France; and that the Air Staff would examine the question of possible standardisation in specifications for the two Air Forces.

After various communications had been exchanged, a further meeting was held between the two Air Ministers on July 25th at which the supply to the French of various British aircraft components was discussed. Of these the most important engagements were for 216 Merlin III engines to be supplied by February 1940, and 175 Merlin X engines by June 1940. The latter, however, were to be delivered in parts, so that the French might gain experience in their assembly - and about 50% of the completed engines were to be returned. It was also agreed that we should deliver 303 de Havilland Hamilton airscrews at the rate of about 30 a month; that we would consider releasing 100 Rotol airscrews; that we would supply steel for **stampings**, crankshafts, etc. and that we would examine the possibility of supplying under-carriages. The French for their part undertook to supply us with rolled section steel, and to examine the possibility of supplying machine-tools, imitation glass, and of instituting an R.A.F. Flying Training School in France. It was also agreed that standardisation of bombs and bomb gear would be investigated.

These contacts were amplified after the outbreak of war, when it was agreed that a Central and an Executive Committee should be formed, meeting alternatively in France and England, to discuss and co-ordinate matters of production in the two countries. It was not until after the outbreak of war that full figures for existing aircraft of all types, recent monthly production, and the production plan for the six months ahead, were exchanged between the two countries.

A.H.B.
IF/90/2
(S. 4. c.)

A.H.B.
IF/90/3.

A.M. file
CS. 1376
Enc. 43a
45a.

The 1939 Conversations. Final stages.

This was roughly the state of concerted plans and agreements between the British and French on air matters when the increased gravity of the Polish crisis brought about the resumption in London of direct conversations between the two delegations. For this, which may be called the third stage of the Conversations, the composition of the British delegation was altered, for the Permanent Military Advisers ~~xxx~~ (designate) at Supreme War Council H.Q. now took the place of the Joint Planning Sub-Committee. Group Captain Slessor thus dropped out of the air delegation, his place being taken by Air Vice-Marshal Ewitt, but for the sake of continuity the assistant-directors of plans were still included in the delegation. The meetings took place in London from 28th-31st August, after which they gave place to more regular methods of wartime liaison and co-ordination.

- A.F.C. 33 The delegations during this stage discussed the new situation in Europe, but agreed that the implications of the Soviet-German non-aggression pact could not usefully be examined until the situation became more stabilised. The advantages and disadvantages of Rumanian belligerency on our side were mooted, but it was noted that the Poles themselves preferred Rumania not to enter as long as Hungary refrained from joining Germany. The Rumanian air force was, of course,

/insignificant.

W unless the conferences abroad and the maintenance of contacts after the second stage meetings in London may be termed the third stage: in this case the renewal of full delegation meetings just prior to the outbreak of war would be the fourth stage.

943. It had by now been agreed between the two governments that there should be a Supreme War Council without executive authority, which would be a matter for the individual governments. On this, apart from the Prime Ministers of the two countries and any ad hoc advisers, there were to be permanent military representatives. The British proposal was that the permanent military representatives should work as a Joint Staff, subordinate to the service authorities of their own country. For herself, Great Britain proposed three such representatives, one from each service, individually subordinate to their service head, and collectively subordinate to the Chiefs of Staff Sub-Committee,

insignificant. The position of Italy was also discussed. An agreed policy had been laid down by the Allied governments that Italian neutrality was decidedly preferable to Italian hostility, and that Italy would probably do her utmost to avoid becoming involved. British commanders had therefore received instructions to take non-provocative defensive precautions against Italian hostility, and to avoid initiating any action which would bring her in against us. The French were invited to send similar instructions to their commanders.

A.F.C. 33.

C.O.S. 961.

A.F.C. 33.

Instructions for allied commanders on the subject of bombardment policy were now practically complete. The British commanders had been instructed (as a matter of expediency, and not in deference to any definition of 'legality') to limit bombardment operations to purely military objectives in the narrowest sense of the word - for example, the German fleet and its bases, German air force units and establishments, and the German Army on the Western Front. This was for the opening phase of the war, and did not preclude the possibility of extended action later. The French indicated that they were in complete agreement, and that their air force had already received similar instructions, while the navy should be correspondingly notified and any allies brought into line. The British informed the French that in the first few days of the war they might employ a policy still more restricted. The French, on the other hand, asserted that they intended to go to the limit of the agreed policy in an effort to relieve Poland; later, however, it became apparent that their intentions did not go beyond an attack on enemy aerodromes. In regard to bombardment policy as a whole, the French suggested the publication of a joint declaration at the beginning of the war stating that the allies intended to confine their bombing to purely military objectives. The C.I.D. approved this suggestion, and the drafting of the declaration - which was also to include our determination to observe the rules of war in relation to gas, submarine attack, and attacks on shipping by aircraft - was discussed by the two governments through Foreign Office channels.

A.F.C. (J)
107

There was also, during this third stage of the conversations, a good deal of discussion on the subject of higher command. The arrangement for the air forces in France was completed, and has been described above. Further study was given to the subject of the higher command overseas, and the co-ordination of military missions to Poland, Rumania, Turkey and Greece was discussed, though no agreed conclusions were reached. It was at this point in the Anglo-French conversations that war broke out. The course of this, as it happened, was to give leisure for the further pursuit of many matters of allied co-operation,

and in one sense the date September 3rd marks no real break. Nevertheless there is interest in examining to what pitch of perfection the allies had brought their joint plans in the five or six months covered by these contacts, and in suggesting by the light of later events, which of the allied premises seem to have been sound, and which of more dubious value. In order that personal commentary of this character may be clearly discernable from the factual summary which has thus far been given, the topic is now treated separately in the following section.

The 1939 Conversations: Commentary.

Broadly speaking, in relation to arrangements affecting joint air operations in Europe, the Anglo-French conversations had achieved the following results. They had arrived at an agreed general strategy - the defensive period of economic pressure and the bombardment of military objectives while the allies grew in strength, followed by the elimination of Italy and then the ultimate offensive against Germany. They had examined their strengths and their weaknesses. They had discussed the various moves open to Germany, of which they concluded a land attack to turn the Maginot Line to be the most likely, though the British were also impressed with the likelihood of an "all-out" German air assault against this country. They had made administrative arrangements for the transfer to France of an A.A.S.F. of twenty medium bomber squadrons and an Air Component of two bomber-reconnaissance, six army co-operation and four fighter squadrons. They had concerted arrangements for the A.A. defence of the British air forces, and had agreed that the British would consider the release of further A.A. guns and fighter squadrons if the situation in Great Britain permitted. They had decided that concentration of action to delay a German land invasion of the Low Countries would be a primary commitment of Bomber Command, and to this end they had drawn up target maps for the attack of suitable defiles on the German path of advance. They had thrashed out the merits of bombing German railways, and broached the subject of bombing German oil and industrial targets. They had agreed on an initial joint bombardment policy limited to military objectives. They had made arrangements for liaison and command. They had discussed possible action against Italy (and her colonies); had exchanged views on the air aspects of Chemical warfare; and had begun concerted measures to improve the output of the French aircraft industry. They had examined the constitution of an Eastern front, and come to the conclusion that only in the air could we help Poland, directly, and that this help would not be decisive.

It is thus apparent that from the air aspect the Anglo-French conversations had achieved a great deal, not only on the broadest plane but also down to administrative detail. Of some subjects, naturally, only the fringe had been touched, but on others - notably general strategy, joint bombardment policy, the transfer of the A.A.S.F. and Air Component to

/France

France, liaison and command, and allied air attack to delay a German land invasion of the Low Countries - very considerable progress had been made. Many of these subjects underwent a great deal of further discussion and development after the outbreak of war and before the German offensive opened in the west, and this is therefore not the moment to consider them critically. The broader strategy was, however, practically complete, and something may be said of this: for although the subject may be considered no part of the air plans, it affected and conditioned them all.

In general, then, it cannot be urged that the allied appreciation of basic factors failed to look facts in the face. There was a clear realisation of great German superiority on land and in the air, and there was nothing of the "ready down to the last button on the last gaiter" spirit in the Allied view of their own forces. The probability of a German advance through Holland and Belgium was plainly foreseen, together with the possibility of our first major success being scored against the Italian colonies. Equally, there was no shutting of the eyes to the enormous difficulties which would be brought about by later Japanese intervention. Indeed, it may be urged that the Allies were almost too conscious of initial enemy superiority - that their conception of it was so strong that all our plans for the first phase of the war, except at sea, became automatically defensive, with a corresponding loss of all initiative. But it would be hard to maintain this thesis - in general, our strategy acknowledged facts and adopted a policy which was natural and sensible in the circumstances, the exertion of economic pressure and the expansion of our war potential until we were strong enough to take the offensive with reasonable chances of success.

It may be argued that the effectiveness of this policy was marred by a failure not so much to realise, as to place absolutely over-riding emphasis on the time factor. The assumption throughout, based on cutting off the enemy from outside supplies, while maintaining our own, was that time was on our side. So it was, if a sufficiently great national effort of production was made. The urgency of this does not appear to have been greatly stressed during the Conversations - the fact that until all her reserve stocks were exhausted, Germany could still out-produce us in war industry, and thus for a limited time accumulate the material to wage offensives which would open up fresh sources of supply to her. In fact French mobilisation was likely to cause a decrease in production, while British production in the spring of 1939 was possibly not animated by anything comparable to the after-Dunkirk spirit. It is true, of course, that we were not at war in March 1939, but the coming conflict was sufficiently apparent. Considerable

/time-

time-delays to implement comparatively modest programmes seem to have been accepted, however. If this was so, the fault would naturally lie more with the political leaders or even the general public than with the service chiefs; but there was apparently a widespread failure to realise clearly enough the essential prerequisite of the "time on our side" theory - that unless we geared our industry to full war production in peace with all the sacrifices and restrictions that this would involve, far too long would elapse after the outbreak of war before we really got going. This criticism is purely tentative, however: for a true estimate a full study of Cabinet policy and British production is necessary.

A. M. file
CS. 1087

A. M. files
S. 45525
& S. 49925

A further weakness was evident in the matter of co-ordination with Belgium and Holland. The need for this was clearly recognised, and conversations with these powers were in principle desired. Staff conversations with the Dutch, however, had not actually been initiated by the outbreak of hostilities: while the prospect of discussions on the attaché level with the Belgians, which had appeared to be getting under way in 1938, broke down in March 1939, when the Belgian Chief of Staff announced that he had been instructed by his government to take no further action in the matter. No further communication of any value appears to have been opened before January 1940. Certainly we were not ignorant of the palpable difficulties bound to follow if Holland and Belgium refused to concert plans beforehand, but yet we determined to advance to take up a defensive line on their soil in response to an invitation which would come only at the twelfth hour. It is easier to appreciate the dilemma in this case than to suggest what should have been done, for the Belgians were obdurate in resisting every approach. Some progress was in fact, made between the outbreak of hostilities and the launching of the German attack in May, 1940: but its nature was limited, complicated and vexatious, and was no substitute for full and frank staff co-operation.

It may also be urged in criticism on allied strategy that there was a grave deficiency of emphasis on the over-riding importance of a strong Eastern front. It is true that help from the U. S. S. R. to Poland in the form of munitions and aircraft was always recognised as an essential if the Poles were to have any chance of holding out. It is true also that we really expected Poland to be defeated, and more or less regarded our role in that relation as limited to restoring her to the map of Europe at the end of the war. The vital step, however, seems obviously to have been to secure an alliance with Russia. This was, of course, a project beset with enormous complications; and the truth can only be yielded by a

study of the diplomatic records, which may well show that the conclusion of such an alliance at the time would have been either valueless or impossible. Nevertheless, it is true to say that there nowhere appears in the Anglo-French papers a realisation that France could not possibly be saved from prostration before the initial German onslaught except by the constitution of an Eastern front including Russia. The allies always considered, in spite of their admitted inferiority in land and air forces, that they had two great sources of strength in the French Army and the Maginot Line. Yet the French must have known how badly equipped their army was, relative to the German: and both allies certainly knew that at least two years must elapse before a sizeable British Army could operate on the continent. It followed that, unless by hook or crook Russia could have been embraced into the alliance, the French and British, in considerable numerical and great material inferiority, were destined to withstand the full shock of German tanks, bombers and dive-bombers released from any preoccupation with a speedily overrun Poland. This, it seems clear now, the allies could not at that time reasonably have hoped to do. The British view, however, was clearly that, desirable as a Russian alliance would be, the Russian Army was an instrument of doubtful efficiency, and the Russian bombers were obsolete. Considering that Russia was the only power which had the vaguest chance of containing German forces of decisive importance in the East, the references to her appear to have been somewhat lukewarm - the more especially when it is remembered that the Russians had an army and an air force not far short of double the combined Franco-British effectives. The matter is, of course, one of diplomatic history, and it may be that the allies did, in fact, make unparalleled efforts to obtain Russian help. However, it is true to say that the Anglo-French Conversations shewed a quite incomplete realisation of the disastrous consequences likely to follow from opposing Germany in the West without Russia's being similarly engaged in the East.

Another point on which criticism may be offered is the British conception of the German "knock-out blow" from the air. This greatly affected the question of what amount of fighter and A.A. support could be sent across the Channel. The French were clearly dissatisfied with our proposed despatch of four fighter squadrons - though it must also be remembered that we promised to consider the release of more, should the situation here warrant it. Obviously the matter is one for debate and controversy, and because a German "knock-out blow" was not delivered against us in 1939 it does not follow that such a thing was not feasible. Equally, its feasibility would increase with every fighter squadron we sent to the continent. Nevertheless it may be doubted whether this danger was in fact as great as we then considered it, and a number of queries spring to the mind in this connection, the answers to which

/are

are matters of opinion, or are locked in the archives of the Luftwaffe. Among these are -

- (a) Was the danger of a German "knock-out blow" against Great Britain so great while Germany had no bases in France or the Low Countries from which she could escort her bombers, and enable them to operate on a more intensive scale?
- (b) Did the German Air Force visualise this kind of role independent of army operations?
- (c) If the Germans tried long distance unescorted daylight bombing from Germany, would they not suffer crushing casualties; if they tried night bombing, were they likely to achieve decisive results?
- (d) Would not more British fighters in France help the allied troops to stem the German land advance and so keep German aircraft out of easy and escortable range of our cities? (Though it must also be remembered that the French could not possibly provide a raid reporting system equivalent to that of Fighter Command, and hence that our fighters would be doomed to work far less efficiently in France than in England).
- (e) Granted that an air squadron, for all its speed in the air, is an extremely immobile organisation, ought steps to have been taken before the war to plan for a greater number of mobile squadrons? *

In fact, of course, we did ultimately send considerably more than four fighter squadrons to France before the end of the campaign, but the number of mobile squadrons as planned at this time was very small - too small to implement our strategic ideas - and the reason for this was our natural preoccupation with home defence and the possibility of the "knock-out blow". The matter of further fighter reinforcements was always hotly pressed by the French, and assumed its most formidable proportions during the land battle in 1940, when the British were unquestionably most wise to resist demands which would have left this country defenceless before a Luftwaffe in possession of French and Belgian bases. Meanwhile, during the Anglo-French conversations it was possible on this subject to note a divergence from which the allies were to reap discord in defeat.

* When the Anglo-French conversations began we had only one fighter squadron on a mobile basis. During their course the decision was taken to make an additional three squadrons mobile.

Copy No 14.

TOP SECRET

R.A.F. NARRATIVE

THE CAMPAIGN IN FRANCE AND THE
LOW COUNTRIES

PART II.

FROM THE OUTBREAK OF WAR TO THE GERMAN ATTACK

(FIRST DRAFT)

Prepared by
Air Historical Branch (1)
Air Ministry.

R.A.F. NARRATIVE
THE CAMPAIGN
IN FRANCE AND THE LOW COUNTRIES

PART II.

	<u>FROM THE OUTBREAK OF WAR TO THE GERMAN ATTACK</u>	Pages
I.	<u>The Move to France.</u>	33 - 42
	The Forces destined for France.	33
	The establishment of the A.A.S.F. in France.	34
	The establishment of the Air Component in France.	39
II.	<u>The Reorganisation of Higher Command, Control and Liaison.</u>	43 - 50
	Before the formation of the B.A.F.F. Command.	43
	The formation of the B.A.F.F. Command.	45
	No. 3 Air Mission.	49
III.	<u>The Redisposition, Reorganisation and Reinforcement of the Fighter Squadrons.</u>	51 - 62
	French request for further British fighter squadrons, September 1939.	51
	Transfer of Nos. 1 and 73 Squadrons to the A.A.S.F.	54
	Nos. 61 and 62 Fighter Wing Servicing Units.	55
	Changes in disposition of Air Component fighters; arrival of Nos. 67 and 615 Squadrons.	56
	Formation of No. 14 Group: Summary of fighter dispositions, January 1940.	57
	Development of reinforcement plans: No. 63 Fighter Wing Servicing Unit.	58
	Suggested fighter patrols from British bases.	60
	Fighter moves during the April crisis: opening of the German attack.	60
IV.	<u>The Redisposition, Reorganisation and Reinforcement of the Bomber Squadrons.</u>	63 - 71
	The Retention of the 2nd Echelon, A.A.S.F., in the U.K.	63
	Plans for Blenheim Reinforcement.	64
	Plans for operating heavy bombers from France.	66
	Re-equipment of the A.A.S.F. Squadrons.	68
	Administrative Reorganisation.	70
V.	<u>The Redisposition, Reorganisation and Reinforcement of the Reconnaissance Squadrons.</u>	72 - 77
	Position in October 1939.	72
	Formation of No. 52 wing	72
	Revision of allotment of reconnaissance to B.E.F.: Air Ministry - War Office discussions.	73
	Locations of reconnaissance units, May, 1940.	76
	No. 212 Squadron.	76
	/VI.	76

R.A.F. Narrative.
The Campaign in France and the Low Countries (Contd.)

PART II (Contd.)	Pages
VI. <u>The Construction and Improvement of Aerodromes.</u>	78-94
The Programme in general	78
The B.E.F. Forward Area.	81
The B.E.F. Rear Area.	83
Improvements to existing aerodromes in B.E.F. areas.	84
The South Champagne area.	87
The Verdun - Metz area.	88
Improvements to existing aerodromes in the A.A.S.F. area.	89
The Orleans - Le Mans area.	91
VII. <u>Development in the Organisation of Defence against Enemy Air Attack.</u>	95-113
Air Raid Reporting: (a) The French Observer System.	95
Air Raid Reporting: (b) The British Wireless Intelligence Screen.	96
Air Raid Reporting: (c) R.D.F.	98
" " " (d) Filter Centres.	100
Air Raid Reporting: (e) Progress achieved.	102
Fighter Defence.	102
Anti-Aircraft Guns.	105
Searchlights.	109
Balloon Barrages.	111
Miscellaneous.	112
Conclusion.	112
VIII. <u>Developments in the Maintenance Organisation.</u>	114-124
Early modifications of the original maintenance project.	114
The formation of Maintenance Control.	115
No. 21 Aircraft Depot.	116
Repair and Salvage Units.	120
IX. <u>Organisation for Mobility: Mechanical Transport.</u>	125-133
The determining factors.	125
The M.T. Reorganisation Scheme.	126
Progress achieved in implementing the scheme.	131
X. <u>Training and Exercises.</u>	134-139
The original state of training of the air crews.	134
Restrictions on training.	135
Intensive night training by Battles.	137
Tactical Exercises.	138

R. A. F. Narrative

The Campaign in France and the Low Countries (Contd).

Part II (Contd)

Pages

XI. Operations before the
German Attack.

140 - 154

Bombing operations.

140

Reconnaissance operations:

- (a) A. A. S. F.
- (b) Air Component.
- (c) No. 212 Squadron.
- (d) Conclusion.

143

147

148

Fighter Operations:

- (a) Air Component.
- (b) A. A. S. F.

148

150

Summary.

154

XII. Plans for the Land Battle.

155 - 176

(A) The Military Plan.

155 - 159

(B) The Air Plan.

159 - 185

(a) Reconnaissance.

160

(b) Fighters.

165

(c) "Medium" bombers.

169

(d) "Heavy" bombers.

176

I. THE MOVE TO FRANCE

The Forces Destined for France.

The air forces destined for transfer to France in the event of war were in two distinct entities, possessing clearly separate functions - the Advanced Air Striking Force and the Air Component of the Field Force. (1) The former was designed as a bomber force only, being a part of Bomber Command's forces despatched to France, and remaining under the operational control of Bomber Command. The essence of the idea behind its despatch was that our medium bombers could operate at closer range from France than from England, whether over enemy territory or in opposition to a German land offensive. The Air Component, on the other hand was a mixed formation, designed as an integral part of the Field Force, for which it was supposed to supply air reconnaissance and protection. It thus consisted of aircraft for bomber-reconnaissance, strategical-reconnaissance and tactical-reconnaissance work, together with some fighter squadrons, all of which, through the A.O.C. Air Component, were under the operational control of the C.-in-C., B.E.F. The various parts of these two organisations and the roles which they were expected to play will be examined later: for the moment it is sufficient to offer a definition.

In addition to these two air formations, two air liaison missions were also scheduled to proceed to France. No. 1 Air Mission, led by Air Marshal A.S. Barratt, was to represent the Chief of the Air Staff at the headquarters of General Vuillemin, Commander-in-Chief of the French Air Forces. The function of this Mission was to effect with our ally a general co-ordination of higher air policy and of air strategy, together with a detailed co-ordination of aircraft operations other than bombing. No. 2 Air Mission, led by Air Commodore F.P. Don, was to represent the Commander-in-Chief, Bomber Command, at the headquarters of General Mouchard, Commander of the French First Air Army (i.e. the French Air Forces on the North-East front). The duty of No. 2 Mission was to effect the detailed co-ordination of bombing operations with the French, once the general bombing policy had been settled by the two Air Staffs. In a critical situation during a German offensive Air Marshal Barratt was authorised to assume control of No. 2 Mission, if he thought necessary, and to issue orders for immediate action direct to the A.A.S.F.

- (1) It will be the endeavour of this narrative to avoid initials as far as possible, on the ground that the military use of these has grown to little less than a plague. Exceptions, however, must be made, and particularly where clumsy titles are concerned. The Advanced Air Striking Force will in consequence be referred to henceforth by its customary abbreviation - the A.A.S.F. The Air Component of the Field Force was usually abbreviated to A.C.F.F., or A.C.B.E.F. and when its title was officially changed, in the Spring of 1940, to the Royal Air Force Component of the British Expeditionary Force, it became abbreviated to R.A.F.C.B.E.F. - a good example of initialism run mad. In this narrative it will be referred to as the Air Component up to the date of the German attack, for the sake of convenience, and afterwards as the R.A.F. Component.

These, then, were the air formations detailed for service on the continent. The two Air Missions, consisting largely of personnel without administrative or operational impediments, could take up their appointed stations within a day or two of the outbreak of hostilities, and duly did so. The A.A.S.F. and the Air Component, both embracing the extensive and complicated range of equipment necessary for effective air operations, were naturally bodies for the movement of which a vast and skilfully constructed administrative plan was necessary. Of these two formations the A.A.S.F. was timed to move first, for bombing operations from French bases might be needed from the very outbreak of hostilities. The movement of the Air Component, on the other hand, was naturally more dependent on the movement of the Field Force of which it was a part, and could thus take place a few days later than that of the A.A.S.F. It will thus be convenient to follow first the movement to France of the A.A.S.F. and its establishment in that country.

The Establishment of the A.A.S.F. in France.

The move of the A.A.S.F., as it was planned before the war, was to take place in certain distinct phases. No. 1 Bomber Group mobilised to war establishment was to comprise the first Echelon of ten Fairey Battle squadrons, A.A.S.F. Headquarters being provided from the personnel of No. 1 Group Headquarters under Air Vice-Marshal Playfair. Provision had been made to transfer this First Echelon under a "Quick Despatch Scheme", the main features of which embraced the despatch of servicing flights and essential personnel by air in time to receive the Battle squadrons as they flew across. On the selected aerodromes stocks of bombs, ammunition, petrol and oil had been laid down in peace time, and on each aerodrome a French "Air Company" was to be installed, to provide certain essential services for the British squadrons until our administrative and supply organisation was complete. It was thus reckoned that the squadrons could be ready for operations within twenty four hours of their despatch.

After this, the remaining personnel and services were scheduled to arrive. A forward sea party was to leave on the same day as the squadrons, and at intervals during the next three weeks the main road and rail parties would also cross by sea. Meanwhile civil aircraft could bring over essential stores, and the army supply system would be establishing itself. (*) When the First Echelon had thus been placed on a sound footing, the Second Echelon was due

/for

(*) The full division of responsibility between Army and R.A.F. for A.A.S.F. services is shewn in appendix A. The normal principle was that the Army was responsible for L. of C. and supply up to railhead, and the R.A.F. from railhead to Unit. A special A.A.S.F. Unit was, however, assigned to No. 2 Base Area (Nantes), for control of R.A.F. details there, and for co-operation with the Army authorities. The Army was also responsible for Engineer Works Services in connection with aerodromes, camps, roads, etc; and it supplied all signals services except (1) the normal R.A.F. ground-to-air facilities, (2) switchboard operators at squadrons, and (3) a supplementary W/T point to point system.

for despatch. This was to consist of No. 2 Bomber Group (Blenheims) mobilised to war establishment, its ten squadrons being arranged for despatch not as one complete Echelon, but in two separate Flights. The whole twenty squadrons of British medium bombers of that time would then be based in France.

Broadly speaking, this programme was carried out, with the very great exception that the Second Echelon (the Blenheims) were retained at home for reasons which will appear later. Late in the evening of August 23rd, 1939, the various units of the A.A.S.F. received orders from Air Ministry to mobilise to war establishment, and secret mobilisation duly began on August 24th. On August 26th, four officers, representing organisation, operations, signals and armament, left Abingdon for No. 52 Air Region, French Air Force, and by the following day had arranged for the establishment of A.A.S.F. Headquarters at Chateau Polignac, Reims. This was opened as Advanced Headquarters, A.A.S.F. on September 1st, which was general mobilisation day for the R.A.F. By now the necessary steps had been taken at home, and in the evening of September 1st the forward parties were warned that the move to France would take place the following day. Accordingly on September 2nd the servicing flights left by air, to be followed by essential personnel for Headquarters, Wings and Squadrons. Air Vice-Marshal Playfair assumed command of the force on his arrival; and in the afternoon the ten Battle squadrons flew across without incident, save that one aircraft of No. 40 Squadron plunged into the sea. The forward sea party also left England, to arrive in the Reims area on September 3rd.

The ten Battle squadrons had been organised into five Wings, formed from their British Station headquarters staff and each Wing was intended to occupy a large aerodrome, to which a small satellite was also supposed to be available. For the Second Echelon a similar organisation had been planned, and the original scheme for the complete distribution of the twenty squadrons thus involved ten main aerodromes, with a Wing Headquarters and two squadrons on each, and ten emergency satellites. The Battles as they arrived on September 2nd, and the formations which administered and controlled them, had thus carried out the following movements:-

	(From) Mobilisation Station	(To) French Station
H. Q. A. A. S. F.	Abingdon	Chateau Polignac Rheims.
No. 71 Wing No. 15 Squadron No. 40 "	Abingdon	Betheniville
No. 72 Wing No. 105 Squadron No. 226 "	Harwell	Reims - Champagne
No. 74 Wing No. 103 Squadron No. 150 "	Benson	Challerange
No. 75 Wing No. 88 Squadron No. 218 "	Boscombe Down	Auberive
No. 76 Wing No. 12 Squadron No. 142 "	Bicester	Berry-au-Bac

When the Battle squadrons - which were at 16 initial equipment aircraft - arrived they were refuelled and bombed up, and by the time war was declared on September 3rd they were, in fact, ready for bombing operations, had these been decided upon by the allied governments. As it was, they had to confine themselves to reconnaissance and kindred activities, not only on the first day of the war but right until the invasion of the Low Countries on May 10th, 1940. The history of operations during this period, however, will be narrated separately.

The successful arrival of the squadrons and their swift preparedness for operations does not imply that this was achieved without difficulty. With one or two exceptions, there were no permanent buildings on the French aerodromes, which for the most part were remote from all save tiny villages. The absence of the bulk of the transport in this stage was thus acutely felt, and the billeting arrangements proved awkward. Much seems to have depended on the degree of efficiency of the local French Air Company in preparing the way. No. 71 Wing at Betheniville seems to have been particularly unfortunate. The following quotation from the Wing Operations Record Book may be allowed to speak for itself:-

Form 540
71 Wing
2.9.39.

"September 2nd. The French Air Company.....were

/expecting

expecting only 5 officers and 30 other ranks to arrive. No arrangements whatever had been made for the accommodation and feeding of the remainder of the personnel of the forward parties. The total personnel who arrived by air on this day, including the servicing flight, were 29 officers, 1 W.O., 52 Sergeants and 143 airmen. The organisation as laid down in the aerodrome dossier was practically non-existent. Two tents only were provided on the aerodrome, one of which was occupied by the French guard. Three petrol filling points were available, one with three hoses, one with two hoses. Two ground defence posts were manned by the French, and a bomb dump was partially constructed. No trenches had been provided anywhere. The officer in charge of the Company had no knowledge of the various details of administration and organisation as laid down in A.A.S.F. Administrative Instructions (War), the majority of which were non-existent. The Air Company as a whole appeared to be completely without orders from higher authority and did not know their duties or what was expected of them. September 3rd. All day was spent in trying to get some sort of order out of chaos, with regard to the feeding and accommodation question. Two of the three petrol filling points became unservicable. "

← At Reims-Champagne, which had permanent buildings and was near a town, →

No. 72 Wing apparently fared better. One of its squadrons, No. 226, tells of "much chaos, due to lack of transport", but the Wing record says, rather more cheefully, "much chaos, but endeavouring to straighten things out". At Challerange, No. 74 Wing had many complaints to make:-

"September 2nd. On arrival it was found that the French Air Company had made no arrangements at all for the reception of the formation, apart from the installation of a highly inefficient telephone system. From the arrival of the Battles until 9.9.39. the entire time of all officers was devoted to a constant struggle with the administrative problem, due to the complete breakdown of the organisation which ought to have been devoted to accommodation and feeding of the troops. At one time starvation point was almost reached. This failure appears to have been due to a violation of the fundamental principle that supply and operations cannot be divorced." In the absence of billets crews at Challerange on the first night slept under their aircraft. At Auberive things seem to have been better, for there are no complaints recorded in the records of 75 Wing and its squadrons: the French Air Company had arranged billets for officers in a Café, and for the men in outhouses and barns. Equally no recorded criticism survives from No. 76 Wing at Berry-au-Bac. Apart from the variation in the efficiency of the French Companies and in the amenities of the locality, some divergence is naturally to be expected from the diverse temperaments of recording officers, particularly in the degree to which they were prepared for the frustrations inherent in service movements, and for the transition from peace to wartime conditions.

In the course of the next few days a move occurred which was to cause the postponement and ultimately the abandonment of the plan to bring out the Second Echelon, the Blenheims of No. 2 Group. The satellite landing grounds were by no means ready for operations, and to do the French justice there had been no guarantee that they would be. In the spring Air Marshal Barratt had been told that no facilities whatever existed there, and that many might be in a state of plough when required, and be unsuitable for use in wet weather. It does not appear that the position had changed greatly since then, and it was decided that some days must elapse before they could be occupied. It was for this reason that the Battle squadrons had been distributed two to each main aerodrome. The opening phases of the Polish campaign, however, gave so clear an indication that the opening of a German land offensive would coincide with mass attacks on aerodromes by the Luftwaffe, that it was decided to disperse the Battle squadrons to the utmost extent possible. Since the satellites were not ready, this meant that the five main aerodromes reserved for the Second Echelon would have to be taken up, if the distribution of one squadron per aerodrome was to be achieved. Accordingly on and about September 12th, the following moves were made:-

No. 15 Squadron	from	Betheniville	to	Conde-Vraux
No. 105	"	"	Reims	Champagne to Villeneuve-Vertus.
No. 150	"	"	Challerange	to Ecury
No. 88	"	"	Auberive	to Mourmelon-le-grand.
No. 142	"	"	Berry-au-Bac	to Plivot.

Plivot, however, was soon required as a base for strategic reconnaissance and No. 142 Squadron accordingly moved back to Berry-au-Bac within a few days. This achieved a distribution of one squadron per aerodrome, except at Berry-au-Bac, where there were two. Ultimately this exception was overcome, when on December 8/9th No. 12 Squadron moved from Berry-au-Bac to a satellite which was now ready - Amifontaine.

It should be noted that these moves, apart from holding up the despatch of the Second Echelon, had a serious effect on A.A.S.F. organisation. The Wing headquarters had been planned to handle two squadrons on one aerodrome, and a somewhat different establishment, particularly for such matters as transport and aerodrome defence, was now needed. The logical conclusion to this came in the reorganisation of wings effected in February, 1940.

Meanwhile from September 13th - 19th the various main parties were travelling from England to their French stations. The mechanical transport appears to have been unduly delayed, and the A.A.S.F. Headquarters Operations Record Book speaks severely of this aspect of the move: "Considerable delay was experienced during unloading operations and in the despatch of vehicles from the ports. Little organisation existed and no arrangements whatever had been made for feeding the personnel other than through the imprest account of the Embarkation staff, St. Nazaire. No

See pages 70-71

/facilities

A. H. B.
II/H2/74

A. A. S. F.
Form 540
19.9.39.

No facilities were available for guiding vehicles to their destination, and no instructions were issued for refuelling, staging or billeting. The safe arrival of the convoy was entirely due to the resourcefulness of its personnel, and the extreme helpfulness of the French civil and military authorities. A sad lesson was learned of the futility of ordering a move without adequate organisation."

By the last week of September the whole A.A.S.F. (less the Second Echelon) was thus in position, and was drawing British rations. During October the French Air Companies left, and the formation became, with its army services, a self-sufficient unit. The full composition and its location at the end of September may be studied in appendix B.

The Establishment of the Air Component in France.

The Air Component, like the A.A.S.F., began its secret mobilisation on August 24th, 1939, headquarters forming from No. 22 Group at Farnborough, under Air Vice Marshal C.H.B. Blount. The transfer of the aircraft across the Channel, however, being related to Army movements, did not take place on a single day, but was spread over a considerable period. The first necessity was to despatch the four fighter squadrons, to give protection to the disembarkation of the Field Force and its move to the assembly area. Accordingly on September 4th ground parties of the four squadrons and of No. 60 Wing, which administered and controlled them, left their home stations and proceeded to France. In the next few days No. 60 Wing Headquarters opened at Aillonville, and the advance ground parties stationed themselves to receive the squadrons. On September 8th and 9th the following moves then took place:-

Unit	(From) Mobilisation Station	(To) French Station
No. 1 Squadron	Tangmere	Le Havre-Octeville
No. 73 "	Digby	" "
No. 85 "	Debden	Rouen-Boos
No. 87 "	"	" "

Each of these squadrons was at 10 Hurricane initial equipment. Their controlling Wing, in the absence of Air Component Headquarters, came directly under Air Ministry.

From September 17th - 23rd the main rail and road convoy parties of the Squadrons then arrived. Again there was considerable delay and inconvenience

/before

before the transport arrived; the road convoy for No. 1 Squadron at Le Havre, for instance, was routed to Brest, and took $3\frac{1}{2}$ days to reach Le Havre from the time it arrived in port. Meanwhile the squadrons operated over the Channel and the ports, affording protection to the Field Force as it established itself in France.

Air Component Headquarters personnel arrived in France on September 15th, and established Headquarters first at Laval then at Le Mans near G.H.Q. On September 21st Air Component took over control of No. 60 Wing from Air Ministry. H.Q. Air Component continued at Le Mans (though sending an advance detachment to Amiens) until G.H.Q. moved up from Le Mans to the Arras area. On October 2nd G.H.Q. and Air Component H.Q. opened in their respective villages outside Arras - the former in Habarcq, the latter in Maroilles.

By this time - from September 17th onwards - the various ground parties of the air units for work with First Corps had begun to move, and arrived at their French stations, from September 20th - October 1st. Again there was long delay in the arrival of the road convoys; the main road convoy of the squadrons of No. 50 Wing, for example, took from September 19th to October 1st to get from Brest to Mons-en-Chaussée. Perhaps the most keenly felt hardship among the men of No. 4 Squadron during this period was the lack of blankets, for these arrived in the last of the convoy. There are several references in the squadron records to the helpfulness of the French during this period, though French rations were apparently unacceptable fare to the British airmen.

The first reconnaissance squadron to arrive was No. 53, at initial equipment of twelve Blenheim IV's. This had been destined as a night reconnaissance force for 1st Corps, but till the arrival of the Field Force in the concentration area it was decided to employ it on general strategical reconnaissance for G.H.Q. It accordingly, on September 18th, took up a station in the A.A.S.F. area at Plivot, whence it took photo mosaics of the B.E.F. area and made long distance reconnaissances (both by day and night) over Germany, refuelling at Metz. It was brought back into the B.E.F. area and stationed at Poix on October 11th, for the 32 Blenheim I bomber-reconnaissance aircraft of No. 70 Wing (allotted to G.H.Q.) had now come across to France (on September 30th). The tactical reconnaissance squadrons for First Corps - Nos. 4 and 13, each at initial equipment of twelve Lysander II's, flew across the Channel on October 2nd. By this time the formations for First Corps and for G.H.Q. were now all in France, and the following moves had taken place:-

For work
with
1st Corps

Unit	(From) Mobilisation Station	(To) French Station
No. 50 Wing H.Q.	Odiham	Athies
No. 53 Squadron	"	Flivert, then Poix
No. 4 "	"	Mons-en-Chaussee
No. 13 "	"	" " "
No. 70 Wing H.Q.	Upper Heyford	Reims-Amy
No. 18 Squadron	"	" "
No. 57 "	"	" "

For work
with
G. H. Q.

In the last week of September and throughout the first week of October the various ground parties of No. 51 Wing and its component squadrons all moved across the Channel. These were destined for work with Second Corps. The two Lysander squadrons of this wing - Nos. 2 and 26 - flew across on October 6th and October 8th respectively, the Blenheim squadron for night reconnaissance (No. 59) following on October 12th. No. 26 Squadron again complained of inadequate reception arrangements, and of delay in receiving transport. It was, however, able to borrow some transport from No. 2 Squadron, whose road convoy had gone across with great expedition on the Dover-Dunkirk train ferry. By October 12th the following moves had thus taken place:-

For work
with
2nd Corps.

	(From) Mobilisation Station	(To) French Station
No. 51 wing H.Q.	Andover	Abbeville
No. 2 Squadron	Hawkinge	Abbeville
No. 26 "	Catterick	Abbeville
No. 59 "	Andover	Poix

By this date all the various units originally scheduled for despatch with the Air Component had therefore moved to France, including, in addition to the air formations mentioned above, a communication squadron, two air stores parks and the units such as No. 2 Base Area and No. 21 Aircraft Depot which were for the common use of A.C.F. and Air Component. There was apparently little doubt in the minds of those at Headquarters where

/the

H.Q. Air
Component
Form 540,
23/9/39.

ibid
27/9/39

the most serious weakness in the move had occurred - in the failure of the road convoys to arrive before the rail parties, although they were despatched an average of five days beforehand. Air Component Headquarters Operations Record Book was particularly severe on this: "There is no use whatever, so far as the operational units are concerned, in dumping hundreds of men on the countryside without equipment or means of conveyance. They cannot even dig defences since the supply of French tools has already been exhausted for agricultural purposes." The weak link in the chain seems to have been the not unnatural congestion at Brest and Cherbourg.

At all events, the scheduled British air forces, with the exception of the Second Echelon of the A.A.S.F., were now in France. Almost immediately changes in disposition and organisation began to occur. These will be examined in later sections.

II. THE REORGANISATION OF HIGHER COMMAND, CONTROL AND LIAISON.²

Before the Formation of the British Air Forces in France Command.

It has already been stated that from the outbreak of hostilities two British Air Missions were in France. No.1 Air Mission, for the discussion of higher policy with the French and the detailed co-ordination of operations except by bombers, established itself with General Vuillemin's Headquarters at St. Jean des deux Jumeaux. No.2 Air Mission, for the detailed co-ordination of bombing operations, established itself with General Mouchard's Headquarters.

Almost immediately a development occurred consequent on a measure of French reorganisation. General Mouchard's command (the "First French Air Army") embraced the whole of the French air force on the North and Eastern fronts, but in September 1939 the French decided to subdivide this command. This led to the creation of a Northern and an Eastern zone of air operations, the former from the sea to the South East corner of Luxembourg, the latter from this point to the Swiss frontier. Later the Eastern Zone was limited in southerly extent to Strasbourg, and a new Southern Zone ran from this town along the Swiss frontier. The Southern Zone had few air forces allotted to it, and was not important. The North and Eastern Zones, however, were extremely important from the point of view of No.2 Mission, since actual operational authority had been delegated from General Mouchard to the commanders of these two Zones. This left General Mouchard as one of those co-ordinating figures bereft of operational formations for whom the French had such a weakness: in this case, however, the anomaly was later removed, for in January 1940 the First Air Army was disbanded, General Mouchard ceased to affect us, and the commanders of the Northern and Eastern Zones emerged more clearly as the figures who mattered.

To meet this situation it was obviously necessary for No.2 Mission, on whom Bomber Command, and thence the A.A.S.F., were to depend for the transmission of bombing requests during a land

/battle

2 The subjects which follow were, in nearly all cases, under simultaneous discussion for some months. Any attempt at treatment in a single chronology would thus be confusing in the extreme, entailing rapid switches from subject to subject and back again. The arrangement followed is therefore by chronology within a selected topic - fighter reinforcement for instance, being carried up to May 5th before aerodrome construction is dealt with. In fact, nearly all topics interlocked and overlapped, but for clarity of treatment they are kept as separate as possible.

battle, to set up detachments at the new Zone Headquarters. While the main No. 2 Mission under Air Commodore Don therefore remained with General Mouchard, whose headquarters had yet four months more of life, a special detachment was set up at the headquarters of General d'Astier, the commander of the French Northern Zone. The Northern Zone, coinciding as it did with the area of the 1st group of armies and the B.E.F., was of prime importance from the British point of view, and General d'Astier's headquarters at Chauny were the natural key-point for allied air operations should the German land attack come the expected way of Holland, Belgium and Luxembourg. The detachment was accordingly set up at Chauny, in the same building as General d'Astier's Headquarters, on October 9th, 1939, its commanding officer, Group Captain Strafford, having been posted from the Air Ministry Directorate of Plans for this purpose. Correspondingly a similar detachment was set up at Nancy, where General Pennes* of the Eastern Zone had his headquarters. This detachment would naturally assume a vital role should the German attack come in the form of a frontal assault on the Maginot Line. Both Northern and Eastern Detachments were of small size, but the Northern detachment, recognised to be the more important, had a nucleus operational staff as well as personnel for intelligence and cypher duty, and was also enlarged by the addition of representatives of G.H.Q. (Lt. Colonel Woodall), of the Air Component, and of the A.A.S.F. Signals communication with the B.E.F., the A.A.S.F., the Air Ministry and Bomber Command was ensured, and Chauny rapidly became the obvious operational centre for a battle on the Northern front. The name given to this new organisation, considered from its aspect of a joint centre for the receipt of information and the transmission of requests for bombardment, was the Allied Central Air Bureau.

The institution of the Northern and Eastern detachments of No. 2 Mission did not in itself bring any simplification to the extremely cumbersome arrangements for command in France. The situation was still that No. 2 Mission, or its detachments, had to transit information and requests for bombardment to Bomber Command, who would then instruct their own Groups or

/the

* General Pennes was replaced for a short time at the beginning of 1940 by General Tetu. General Bouscat then assumed command of the Eastern Zone and was still in charge on May 10th.

the A.A.S.F. accordingly - unless Air Marshal Barratt of No.1 Mission had deemed the occasion so critical that he had taken over No.2 Mission and issued orders direct to the A.A.S.F. There was, however, remarkably little point in having a force like the A.A.S.F. stationed in France, if requests for its employment had to be transmitted to England first, unless it was to be engaged purely in strategic bombing. It is never an easy task for aircraft to take off within sufficiently short time to engage an "opportunity" target in these days of mechanised forces: and a system which envisaged that reconnaissance information might be brought in by a French aircraft, transmitted to Chauny, there sifted and appreciated, a request passed to Bomber Command at High Wycombe, thence (if approved) to A.A.S.F. at Reims, thence to a Wing headquarters, and thence to a Squadron, was little short of fantastic. This defect was, of course, widely appreciated; and though Air Marshal Barratt was empowered to take over in a critical situation, there seemed very little sense, in a situation where active operations were likely to develop at any time, in having such a system of checks and balances for the normal procedure. It is obvious, in fact, that the procedure could only have been designed with strategic bombing in mind, and that the system had not kept abreast of the increasing certainty that the A.A.S.F. would be committed to direct "collaboration" against a German attack. Equally, a great deal of co-ordinated planning involving the French air forces, the French armies, the B.E.F., the Air Component and the A.A.S.F. was necessary, and some improvement on the existing role of the Missions was undoubtedly possible. These factors led up to the institution of the B.A.F.F. Command in January, 1940.

The Formation of the British Air Forces in France Command.

Letter BC/ERLH/
DO 28/10/39
C.-in-C.,
Bomber Command
to C.A.S.

The pressure for some sort of reorganisation in arrangements for higher control seems to have come from several different sources. Air Marshal Barratt was certainly aware of the weakness of the existing organisation: while the C.-in-C. Bomber Command (Air Chief Marshal E. R. Ludlow-Hewitt) was strongly of the opinion that a co-ordinating Headquarters was needed "to button up the divergent or convergent requirements of the French and British forces, the Air Component, the A.A.S.F. and Bomber Command." A very important influence was also exerted by the War Office, which at this time was carrying out a heated debate with the Air Ministry on the question of bomber support to the B.E.F. The General Staff were pressing for large numbers of bombers directly under their own control, on the ground that existing arrangements gave no adequate assurance of bombing operations in favour of the B.E.F. It was therefore appreciated in the Air Ministry that the appointment of a commander over all

/the

the British Air Forces in France might at once improve the existing organisation, and, by the incorporation of specific responsibilities concerning the B.E.F. in the new commander's directive, abate the more unreasonable military demands.*

The new organisation came into effect from January, 15th, 1940. By its terms two very important changes for the better were achieved. In the first place, an Air Officer Commanding-in-Chief (Air Marshal Barratt) was appointed over all British Air Forces in France: and this, by giving a status to Air Marshal Barratt superior to that he had previously enjoyed as head of No. 1 Mission, greatly facilitated the co-ordination of arrangements with the French Army, the French air force, and G.H.Q. Secondly, the fact that the A.A.S.F. was detached from Bomber Command for operational purposes in support of the armies in France, and was placed, through Air Vice-Marshal Playfair, under the direct control of the new A.O.C-in-C., ensured the elimination of an unnecessary link, since targets would no longer be passed to the A.A.S.F. via Bomber Command. The A.A.S.F., it is true, was liable to revert to Bomber Command temporarily for a major air operation other than in support of the armies in France, and Bomber Command was therefore still responsible for its training, apart from army-support work. This last provision proved to be at once unimportant and important: for whereas in actual fact the A.A.S.F. never did take part in a major operation of this character, it was trained to participate in a projected operation for mining the Rhine. This gave the force valuable night flying practice, which stood it in good stead when, during the battle, the excessive rate of casualties by day caused a switch to night operations.

The status of Air Marshal Barratt in the new arrangement was defined as being in the same relationship to his own government as was the C.-in-C., B.E.F., save that the Air Marshal was not under the orders of any French general. In regard to support of the B.E.F., the analogy was quoted of Coastal Command and the Royal Navy. The Air Component was to be absorbed into the new command, but operational control by G.H.Q., through the Air Officer Commanding was preserved. The statement of Air Marshal Barratt's duties in regard to the B.E.F. had been agreed between the Air Staff and the General Staff: but its

/terms

ii

For further reference to this controversy
see pages 74-75

Air Marshal
Barratt's
Despatch,
Appendix C.

terms were sufficiently vague to make quotation necessary. "The A.O.C.-in-C., B.A.F.F., will be charged with the responsibility of seeing that the C.-in-C., B.E.F. has at all times 'full assurances' regarding air support'. Accordingly, the A.O.C.-in-C. will place 'at the disposal of the C.-in-C.' such bomber squadrons as the latter may, in consultation with him, consider necessary from time to time." The interpretation of these sentences obviously called for conferences between Air Marshal Barratt and Lord Gort, and a working arrangement, detailed below, was achieved. At the same time it was specifically pointed out in the Air Marshal's directive from the Air Ministry, that, since the B.E.F. was holding only a fraction of the Allied line, the British bombers in France should be called on to operate "in accordance with the day-to-day needs of the Allied situation on the western front as a whole."

It should be mentioned that the new command differed from a normal command organisation, in that Air Marshal Barratt had no responsibility for administration, save at the level of higher administrative policy. This course was adopted for two reasons: first, in order to avoid swamping an operational commander with administrative detail; and secondly, since a working system of administration, under the A.A.S.F. and the Air Component, was already in existence. The detachment of administrative services from these formations would have involved a long and complicated process, even had it been desired to centre administration in command headquarters. Moreover, A.A.S.F. and Air Component were very different in their composition, their degree of dependence on G.H.Q., and their geographical location, and there was much to be said for leaving them as administratively independent as possible. In accordance with Air Ministry policy, the only services represented at Air Marshal Barratt's Headquarters thus became Signals, Meteorology, Financial Advice, and Maintenance. It was perhaps inevitable, in the circumstances of the formation of the Command, that no completely satisfactory administrative arrangement could be devised. It should be noted, however, that the formation of the new Command facilitated the removal of certain administrative anomalies, such as the position of No. 2 Base Area. This existed to serve both the A.A.S.F. and the Air Component, but had been under the administrative control of the former. It was now detached from this, and placed directly under B.A.F.F. Headquarters.

/Air

Minutes of
G.H.Q. Confer-
ence, 17/1/40,
reference GR.
808/0(S), re-
produced as
Appendix E to
Air Marshal
Barratt's
despatch.

Air Marshal Barratt now proceeded to reach such arrangements with G.H.Q., with Bomber Command and with the French as were necessary before his Command could function smoothly. As a Conference at G.H.Q. on January 17th, 1940, agreement was reached to the effect that the A.O.C.-in-C., though not concerned with the execution of routine reconnaissance sorties, would have a general control of arrangements for ordering and co-ordinating strategical and photographic reconnaissance: and that the allocation of fighter resources as between the A.A.S.F. and the Air Component would be a matter for the A.O.C.-in-C. to raise with the C.-in-C. when he thought necessary. It was agreed that there need be no close interpretation of the elastic phrases about 'full assurances regarding air support' and about placing bombers 'at the disposal of the C.-in-C.'. Consultation between the A.O.C.-in-C. and the C.-in-C. could be effected personally on occasion: through their 'G' staffs at their respective headquarters: and through the G.S.O I. attached to the Allied Central Air Bureau at Chauny. Should conflicting claims for the support of our limited bombing resources arise between the B.E.F. and the 1st Group of French armies, a decision should be taken by General Georges, Commander of the Armies of the North East, who was the superior both of Lord Gort and of General Billotte, Commanding the 1st Group of Armies.

These arrangements were complemented by a number made with the French. In order to achieve the degree of liaison necessary, since he was to operate for the needs of the allied front as a whole, Air Marshal Barratt in a letter to General Vuillemin on January 21st, 1940, suggested the following appointments:-

A.H.B.
Tm/44/1a(A.7)
(Appendix A.7
for 21/1/40,
B.A.F.F.
Headquarters
Form 540).
(Also reproduced
as Appendix F
to Air Marshal
Barratt's
despatch).

- (1) A French officer representing General Georges at B.A.F.F. Headquarters (or Advanced H.Q.) for operational requirements during the battle.
- (2) A French officer representing General Vuillemin (G.Q.G. Air) at B.A.F.F. Headquarters for general operational and administrative co-operation.
- (3) A French officer representing General Vuillemin at B.A.F.F. Headquarters for the exchange of air intelligence.
- (4) A French officer representing General Mouchard (1st Air Army) at B.A.F.F. Headquarters for general liaison and exchange of air intelligence.

- (5) A British officer representing Air Marshal Barratt (B.A.F.F. Headquarters) at French G.Q.G. Air, for the exchange of air intelligence.
- (6) A British officer representing Air Marshal Barratt at H.Q. 1st Air Army for the exchange of air intelligence.

These proposals were all accepted by the French and were put into effect. They were supplementary to the most essential element in liaison, the retention of the Allied Central Air Bureau at Chauny, and the corresponding detachment at Nancy. Since the two British Air Missions were absorbed into the B.A.F.F. Command, the afore-time detachments of No. 2 Mission were rechristened, the Bureau at Chauny becoming known as Advanced Headquarters B.A.F.F. (North), and that at Nancy as Advanced Headquarters B.A.F.F. (East). Air Marshal Barratt informed General Vuillemin that his intention was, on the outbreak of the battle, to move from his new headquarters at Coulommiers, which had been selected for proximity to General Vuillemin, and to occupy whichever of the Advanced Headquarters proved to be more conveniently situated for the direction of operations. Thus the effect of Air Marshal Barratt's proposals was that he would actively conduct operations in concert with General d'Astier or General Bouscat, according to whether the attack came in the North or in the East, and at the same time would enjoy full liaison with General Georges, with General Mouchard, with General Vuillemin (and, of course, with Lord Gort).

No. 3 Air Mission

The above list of liaison arrangements would be incomplete without reference to the very important role of No. 3 Air Mission. This was formed at Valenciennes in November, 1939, and progressively developed until it was at full strength in February, 1940. Its function was, by moving into Belgium on an invasion of the Low Countries by Germany, to gather information on the progress of the battle in that area, and to transmit it to Advanced Headquarters, B.A.F.F. (North), or wherever else might be the centre of allied air operations. Relevant items were also to be transmitted direct to G.H.Q. For this purpose, and more particularly since special arrangements were necessary in the absence of any preconcerted plans with the Belgians, the Mission was organised on unusual lines. In its final form it consisted of two parts. The first of these - the Air Mission proper - was to take up its station alongside Belgian G.Q.G., where it would act on air liaison matters, and would sift the information available from this and other sources before passing it on. Wing Commander J.M. Fairweather, who was then Training I at B.A.F.F. Headquarters, was to assume command of the whole Mission when the invasion materialised, and to be in direct charge of that part

of it which stayed near Belgian G. Q. G. There was, however, a second part of the Mission, consisting of a military ground reconnaissance force, whose function was to gather news by visits to formation headquarters, by direct investigation and by any other means. This news was to be transmitted to Wing Commander Fairweather and would thus supplement the information derived from G. Q. G. This military section of the Mission, which was under the command of Lieutenant Colonel G. F. Hopkinson, was very well equipped for its duties, for its total personnel of 13 officers and 105 other ranks had under their charge 6 light tanks (wheeled) and 9 trucks, mostly equipped with high power wireless, together with 2 utility cars, 42 motor cycles or motor cycle combinations, and 2 mobile wireless stations. Even the more static part of the Mission, that primarily for duty near Belgian G. Q. G., was equipped to a high degree of mobility, for the 10 officers and 30 other ranks boasted 2 mobile wireless stations, a Type "X" Cypher machine in a light van, 2 trucks, 3 utility cars and 10 motor cycles. Together the two parts of the Mission were admirably designed for a fluid battle in which normal communications might be at sixes and sevens.

In sum, the principal developments in the organisation of higher command, control and liaison between the outbreak of war and the invasion of the Low Countries were:- the establishment of the Allied Central Air Bureau at Chauny, and the corresponding detachment at Nancy; the absorption of Nos. 1 and 2 Air Missions, the A. A. S. F. and the Air Component in the new B. A. F. F. Command, involving the detachment of the A. A. S. F. from the operational control of Bomber Command; the establishment of B. A. F. F. Administrative Headquarters at Coulommiers, with the retention of the bureaux at Chauny and Nancy as advanced operational headquarters; the increased liaison facilities between B. A. F. F. on the one hand, and the B. E. F., the French armies and the French air force on the other; and the institution of No. 3 Mission for liaison and the collection of information in Belgium.

III THE REDISPOSITION, REORGANISATION AND REINFORCEMENT OF THE FIGHTER SQUADRONS.

It has already been explained that the A. A. S. F., as originally designed, had no attached fighter squadrons; and that the four fighter squadrons of the Air Component, grouped into No. 60 Wing, had crossed to France, on September 8th and 9th, taking up stations at Rouen-Boos and Le Havre - Octeville to protect the Field Force. This was naturally a purely temporary disposition, the four fighter squadrons being intended to move forward to a locality whence they could protect the concentration of the B. E. F. and the eventual B. E. F. area.

French requests for further British fighter squadrons, September 1939.

Almost immediately after the outbreak of hostilities the French suggested a refinement of the fighter plan, involving the despatch of further British fighter squadrons to France. Pressure of this kind had of course been powerfully exercised before the war ~~and had resulted in our promise~~

to send four squadrons (instead of one) at the outbreak of hostilities, and to consider how many more, if any, could be spared in 1944. At a conference at his headquarters on September 21st, 1939, and in a note the following day, General Gamelin now suggested to the Chief of Air Staff (Air Marshal Sir Cyril Newall) that, in addition to certain increases in anti-aircraft artillery, we should send two fresh squadrons for the defence of the B. E. F. area, and leave our four existing squadrons where they were, at Rouen and Le Havre, for the defence of communications and of the rear territory. He further proposed that we should send four more fighter squadrons to assist in the defence of the A. A. S. F. area. His complete proposals, at this moment, in regard to fighter aircraft, thus amounted to a demand for a further six squadrons.

The answer to these proposals, as given by the Chief of Air Staff at the conference and in an official reply later, was to the effect that, having promised four squadrons for 1939 and having supplied them, we could make no specific guarantee for increase. It was explained that fifty squadrons were considered necessary for the defence of Great Britain, and that of these we had only thirty one, with none for the defence of our fleet at Scapa. Nevertheless, although we could give no guarantee, we were planning an organisation by which two further squadrons could be immediately operated from France, should an acute emergency arise, and the situation in Great Britain warrant their release. We

insisted, however, that the four existing squadrons in France must move forward for their appointed duty. Accordingly on September 28th/29th, Nos. 85 and 87 Squadrons moved forward from Rouen to Merville; and Nos. 1 and 73 Squadrons moved forward from Le Havre to Norrent Fontes. In this situation they were well placed, either for the possible opening of land operations, or for the interception of German aircraft which, respecting the neutrality of Belgium, crossed the coast of the Pas de Calais to reconnoitre the B.E.F. area.

In concession to General Gamelin's proposal that four fighter squadrons should assist in the defence of the A.A.S.F. area, although we were unable to promise any such additional squadrons, we announced that we were making arrangements by which two of our four existing squadrons might possibly operate from the Verdun-Metz district.

The organisation of means for enabling two further squadrons to operate at need in France now proceeded. The system evolved was to create a unit which could administer and control two squadrons, and would hold essential equipment; maintenance personnel, however, were to be flown over at the same time as the Squadrons actually arrived. No. 61 Fighter Wing Servicing Unit, as the first of these units was called, had begun to form at Hendon on September 23rd, and by October 3rd its advance elements had arrived at Nantes, whence they could be directed to any chosen area. A unit like this, which would enable two squadrons to operate at short notice in France while leaving much of their ground organisation in England so that the squadrons could revert to this country in a moment of need, was undoubtedly expensive in equipment and personnel. This fact was a natural limitation to the extension of such flexibility to as many squadrons as might be strategically desirable. While the direction of German air attack was still unsettled, however, it was felt that a limited scheme of this nature was a wise course; and the importance of flexibility was sufficiently appreciated in the Air Ministry for a second wing servicing unit (No. 62) to be created in this country during October. This had been recommended by Air Vice Marshal Evill after a further meeting with General Gamelin and Air Marshal Barratt on September 28th. A conference was then held in France, on October 6th, at which General Gamelin, General Vuillemin and the Chief of Air Staff exchanged their views once more. General Gamelin stated that he had no wish to strip us of our defences, and that he fully understood our difficulties. He must, however, press for the development of maximum

/flexibility

flexibility, so that we could reinforce when the crisis came. The Chief of Air Staff explained that this was precisely our idea, but that the task was difficult in view of the static basis of the existing squadrons in this country. General Vuillemin also approved the idea of flexibility; and since there was so much agreement on the principle, it followed that the unreconciled divergence which continued to exist, was on the scale of its application. Here it was essential for the British to draw a limiting line, for a further consideration entered. Strategically, it might be desirable to make every British fighter squadron so mobile that it could be concentrated for the decisive battle in France, should that prove to eventuate there. But in fact a very practical limitation, apart from the difficulty of equipping to such a scale of flexibility, had impressed itself on our Air Staff, in the form of the inefficiency of the French air ~~raid~~ reporting system. In such circumstances (unless a better system could be organised before a German invasion), whatever efficiency in flexibility we developed, we should simply be transferring fighter squadrons to France for them to operate far less effectively than they could at home. This was stated fairly clearly by the Chief of Air Staff at the conference on October 6th, for a record of the meeting runs thus:-

D. of Plans
Form 540
Appendix 64
6/10/39.

"Air Marshal Newall insisted that it was no good the French asking him to give fixed dates or fixed numbers of squadrons of fighters that could be made available. The French quite understood that the availability of additional fighter squadrons for operation in France was a question for British government decision at the time. Speaking quite frankly, he said that they had prepared a good plan for the defence of England, and were not quite sure that the French had made a good plan for the Air Defence of France.

General Vuillemin promptly replied that they had, but that France's plan for air defence was to have been ready for the middle of 1940. General Gamelin added that of course the French had had to concentrate chiefly on their army.

Air Marshal Newall then brought up the question of R.D.F. warning system. He said that the French warning system was not as good as ours. He was arranging for the provision of extra R.D.F. equipment for France -

The essence of the opposing viewpoints in a controversy that was to run on to the

/end

end of the campaign, and afterwards, can thus be expressed in a few words. The French wanted us either to increase very considerably our fighter resources in France, or else to play for a very high degree of flexibility, so that we could send over a great number of squadrons in an emergency. We fully accepted the principle of flexibility, but were unwilling to apply it on as large a scale as the French wished, partly from the organisational difficulty, and partly from a feeling that a decision to operate most of our fighters in France would entail such heavy and unnecessary wastage that we might well be left defenceless here, without having secured the decisive defeat of the enemy over France.

The transfer of Nos. 1 & 73 Fighter Squadrons to the A.A.S.F.

Meantime, affairs were directed towards a compromise. The French proposal that we should operate fighter squadrons from a district in front of the A.A.S.F. area corresponded well with our own notions, save in so far as the French wished these squadrons to be additional ones, while we at that time intended them to be part of our forces already in France. The idea with which we had been impressed was threefold: that during October a German attack on the Eastern front seemed very likely; that our own forces in the A.A.S.F. area could well do with additional protection apart from that supplied by the French, and that some sort of fighter cover for our Battles would be a very desirable thing. This last point had particularly impressed itself as a result of engagements on September 20th and September 30th, which had shown that even Battles on reconnaissance (and therefore at that date with no bombs up) would have a very rough handling from No. 109's. Moreover, while the Germans respected the neutrality of Belgium and Luxembourg, their means of air approach could only be across the Northern coast of France, or across the Maginot Line. So long as we retained all four squadrons in the B.E.F. area, we were catering only for the former method of approach.

It was accordingly arranged that Nos. 1 and 73 Squadrons should move down from the B.E.F. area to a position near the Eastern frontier in advance of the A.S.S.F. area, where they would be well placed for interception or for escort. On October 8th/9th these two squadrons therefore left Norrent Fontes. No. 1 Squadron taking up its station

at Vassincourt, and No. 73 at Etain-Rouvres, both within a twenty mile radius of Verdun. The two squadrons at first formed a detachment of No. 60 Wing, which maintained an advanced headquarters for the squadrons: from November 12th, however, a separate organisation was formed for them. This was known as No. 67 Wing, and under it the two squadrons were thenceforth to operate. Opening on November 12th at Neuville, near No. 1 Squadron, the Wing Headquarters transferred on November 28th to the more convenient village of Bussy-la-Cote, where its operations room was thenceforth situated. The institution of a separate fighter wing for the A.A.S.F. was naturally a sign that the need for fighter squadrons in this area was recognised as permanent.

Nos. 61 and 62 Fighter Wing Servicing Units.

The transfer of two fighter squadrons from the B.E.F. area to that in advance of the A.A.S.F., could naturally not have been done without permission from G.H.Q., for this was tantamount to taking away one half of the designed fighter protection for the B.E.F. Equally, permission from G.H.Q. would scarcely have been obtained had there been no prospect of replacement. Such a possibility did, in fact, exist in the form of No. 61 Fighter Wing Servicing Unit at Nantes. This was accordingly moved up to Norrent Fontes as soon as the aerodrome had been vacated by Nos. 1 and 73 Squadrons, and in the week following (October 10th - 17th) it was brought up to full establishment for the command and administration of two squadrons. Since it was undesirable to wait for the formation of two new Hurricane squadrons in England, and existing Hurricane squadrons could be ill spared, the unit changed its stock of Hurricane spare parts for those of Gladiators, the intention being to send out two Gladiator squadrons (Nos. 607 and 615) straight from the line if an emergency arose.

While No. 61 Fighter Wing Servicing Unit was preparing for the possible reception of two Gladiator Squadrons at Norrent Fontes, progress was being made with the organisation of the second servicing unit, No. 62. This began to be formed at Hendon on October 13th; on October 24th the first party left the country; by October 27th it was officially formed at Rouen Boos. This went some way towards satisfying part of General Gamelin's request, that we should supply some fighter defence for the Lower Seine area; he, in fact, asked for four squadrons to be left for that purpose; what we now supplied was an organisation which could receive two squadrons of Hurricanes in an emergency; should we decide to send them.

By the end of October our fighter resources in France accordingly stood thus:-

2 fighter squadrons (Nos. 85 and 87) in the B.E.F. area, at Merville

2 Fighter Squadrons (Nos. 1 & 73) in the Verdun-Metz area, at Vassincourt and Etain-Rouvres.

1 Fighter Wing Servicing Unit (No. 61) in the B.E.F. area, at Norrent Fontes (for the possible reception of two Gladiator Squadrons).

1 Fighter Wing Servicing Unit (No. 62) in the Lower Seine area, at Rouen-Boos.

(for the possible reception of two Hurricane Squadrons).

Changes in Disposition of the Air Component Fighters: arrival of No. 607 & 615 Squadrons.

A reshuffle of the Fighter Forces in the B.E.F. area now occurred. Nos. 85 and 87 Squadrons at Merville had been finding their aerodrome all too appropriately named for it was rapidly becoming waterlogged. They therefore began operating Flights from Norrent Fontes, which meant that in the last fortnight of October No. 61 Servicing Unit was being usefully employed, though not as yet to look after reinforcements.

The additional complication then arose that Norrent Fontes had to be handed back to the French, for it had been arranged that this should be done when the B.E.F. was in due position, facing east. Accordingly, on November 4th No. 61 Fighter Wing Servicing Unit moved up to the extremely muddy Merville; while on the following day Nos. 85 and 87 Squadrons went right forward to Lille-Seclin, which was really regarded as too far ahead to be suitable except as an advanced landing ground. These were by no means ideal moves; they were dictated by the chronic aerodrome scarcity.

During the second week in November reports began to come in from intelligence sources of an imminent German invasion of the Low Countries; and on November 15th the two Gladiator squadrons - No. 607 (County of Durham, A.A.F.) and 615 (County of Surrey, A.A.F.) - were flown across from Croydon to the undesirable Merville, where No. 61 Fighter Wing Servicing Unit was waiting to receive them. They came under its station administration, but under the operational control of No. 60 Fighter Wing, which could thus once again operate four Air Component Squadrons for the protection of the B.E.F. The tension was already partly relaxed by this time, and by

/November

November 20th G.H.Q. had ordered its advanced troops to resume their normal positions. The Gladiators, however, were ordered to stay in France. They were soon to find Merville quite unusable, and on December 13th, together with No. 61 Fighter Wing Servicing Unit, they moved down to Vitry-en-Artois, near Douai. By the beginning of 1940 they had been brought up to the full strength of mobile Fighter Squadrons in the field.

The permanent allocation of these two Gladiator squadrons in France, bringing our total of fighter squadrons in that country up to six (with provision for two more in an emergency) had little effect in satisfying French demands for something on a larger scale. On November 21st General Vuillemin, through the organisation of the Permanent Military Representatives, pressed for the despatch by March 1940 of four further squadrons if Italy remained neutral, and twelve further squadrons if Italy were hostile. The Air Staff found themselves unable to accept the validity of General Vuillemin's figures or arguments, and were unwilling at this date to increase their existing commitments, which in addition to the possible two further squadrons to be sent to Rouen, also catered for two squadrons to work from Manston over the B.E.F. area. In the new year, however, some advance was made towards meeting the more moderate of the French requests in the manner detailed below: the possibility of releasing further fighters in the event of Italian hostility, however, met with no encouragement at all on our side, for the defence of Egypt would then become a primary commitment, and our fighter resources there were gravely short of full requirements.

Meanwhile some changes of disposition and organisation had been occurring among the four Air Component Fighter Squadrons. Their situation - the Hurricanes at Lille-Occlin, the Gladiators first at Merville then at Vitry-en-Artois - was recognised as too near the Belgian border for the most efficient interception of those German aircraft which continued to fly along the coast, and turn inland near Calais or Boulogne. Accordingly from mid-November onwards flights from one or other of the squadrons were maintained at two stations conveniently situated both for barring entrance by this backdoor, and for affording protection to vessels such as leave-boats. These stations were St. Ingelvert and Le Touquet, and they continued in sporadic use by the British until May, 1940.

Formation of No. 14 Group: Summary of Fighter Dispositions, January, 1940.

On January, 20th, 1940, a new command organisation for the Air Component Fighter Squadrons

C.O.S. (39)139
and
D. of Plans,
Form 540
Appendix 198.
19/12/39.
C.O.S. (39)159

came into effect. No. 60 Wing was given a name corresponding to its real functions, and became 'No. 14 Group', with headquarters at Achicourt. It was responsible for the raid reporting service and the higher operational control of the four squadrons, which fell naturally into two wings, corresponding with British sectors. The term 'No. 60 Wing' was henceforth applied to the Wing organisation set up for the administration and lower operational control of the Hurricane squadrons (Nos. 85 and 87) at Lille-Seclin. Correspondingly, No. 61 Fighter Wing Servicing Unit was transformed into No. 61 Wing, which supplied the administration and lower operational control of the Gladiator Squadrons (Nos. 607, 615) at Vitry-en-Artois.

The complete disposition of the British Fighter Forces in France by January 20th, 1940, may be thus tabulated for the sake of clarity:-

A. A. S. F.

No. 67 Wing	Bussy la Cote	} Verduin area
No. 1 Squadron (Hurricanes)	Vassincourt	
No. 73 " "	Etain-Rouvres	

Air Component

No. 14 Group	Achicourt	} B. E. F. area.
No. 60 Wing	Lille-Seclin	
(No. 85 Sqn. (Hurricanes)	" "	
(No. 87 " (Hurricanes)	" "	

No. 61 Wing	Vitry-en-Artois	}
(No. 607 Squadron (Gladiators)	" " "	
(No. 615 " (Gladiators)	" " "	

No. 62 Fighter Wing Servicing Unit-Rouen-Epos)
Lower Seine area, (for the possible
reception of two Hurricane Squadrons)

In this general shape, though with modification of locality and the addition of a second Fighter Wing Servicing Unit, our fighter organisation continued until the land battle. By the close of 1939 it thus gave an actual strength of six British fighter squadrons, with a potential strength of two more. It will be seen that we had considerably improved on our original commitment for the year.

Development of Reinforcement plans: No. 63 Fighter Wing Servicing Unit.

During the early months of the new year further plans proceeded along the lines of increasing flexibility. It was intended to form in this country three further Fighter Wing Servicing Units for despatch overseas. Of these the first - No. 63 Fighter Wing Servicing Unit - was soon ready, and proceeded to France at the beginning of March, taking up its station at Lille-Seclin with the Air Component. This move

/increased

increased our fighter organisation in France to a potential strength of ten squadrons (six actual, four possible). Plans for the other two units, however, were dropped after the opening of the Norwegian campaign: for when Air Marshal Barratt pressed the Air Ministry to despatch a further unit by May 1st, on the ground that his existing and potential forces were insufficient to ensure protection for the B.M.F. and the operations of the A.A.S.F., he was informed by the Deputy Chief of Air Staff that no further Fighter Wing Servicing Units would be despatched. It was impossible, in the Air Staff view, to lock up skilled personnel in such units for possible needs, at a moment when actual commitments such as the Norwegian campaign existed. Accordingly Air Marshal Barratt was told that should events in France imperatively demand the presence of fighter squadrons beyond the additional four already contemplated and prepared for by the despatch of Nos. 62 and 63 F.W.S. Units, such reinforcement could be made by attaching further initial equipment aircraft to the existing squadrons in France. This in fact proved to be the method by which further reinforcement was made during the battle.

Arrangements made during this period between Air Marshal Barratt and the French now produced a modification of dispositions for reinforcement. It had been intended, in emergency, to send out two squadrons - Nos. 46 & 501 - to No. 62 Fighter Wing Servicing Unit at Rouen-Boos, for the defence of the lower Seine area. Air Marshal Barratt, however, was anxious to bring this organisation down to the A.A.S.F. area; partly on the ground that at Rouen the British squadron would be operating alone under French direction; and partly on the ground that the A.A.S.F. area and the A.A.S.F. bombers could well do with extra fighter protection. By March 23rd agreement had been reached with the French and No. 62 Fighter Wing Servicing Unit was duly transferred from Rouen-Boos to the A.A.S.F. area, where it camped near the villages of St. Hilaire and Auberive. This meant that, of the four Hurricane squadrons earmarked for possible reinforcement, two would now come to No. 62 Fighter Wing Servicing Unit for work with the A.A.S.F., and two to No. 63 Fighter Wing Servicing Unit for work with the Air Component. The aerodromes at which it was now proposed to locate these possible reinforcements were as follows:-

/No. 46 Squadron

H.Q.B.A.F.F.
Form 540
Appendix
A101
11/4/40

Ibid.
Appendix
A122(a)
24/4/40.

H.Q.B.A.F.F.
Form 540
23/3/40.
Appendix
251.

No. 46 Squadron (to) Auberive) with No. 62 F.W.S.U.
 No. 501 " " Betheniville) in A.A.S.F. area.
 No. 3. " " Vitry-en-Artois) with No. 63 F.W.S.U.
 No. 79 " " Lille-Seclin) in B.E.F. area.

Suggested Fighter patrols from British bases.

There remains to consider a further method of help by British Fighters which was debated during the months of waiting and preparation before May 10th. If we were unwilling to release as many squadrons for service in France as our ally wished, it might nevertheless prove possible to afford some further degree of help by operating squadrons from British bases. In fact, however, there were many practical considerations against such a course, not least of which were the distances which it would be necessary to fly, the short endurance of the Hurricane, the absence of sufficient British bases on the South East coast, and the danger of involving too many of our squadrons in a continental scale of wastage. The French, however, were pressing for help from British bases for the Seventh Army in its projected advance along the Belgian coast to the mouth of the Scheldt. We were reluctant to operate British based fighters actually over the Seventh Army, and we had no great opinion of the actual movement projected by this force, but we agreed, in January 1940, to help in the protection of its left flank by operating a patrol to seaward of the coastline between Dunkerque and Breskens. The forces which we promised for this purpose were two Hurricane and two Blenheim squadrons. The earlier plan to operate two squadrons from Manston over the B.E.F. area was abandoned as from March 1st 1940 when it was decided to despatch No. 63 Fighter Wing Servicing Unit to France.

Fighter moves during the April crisis: the opening of the German attack.

The month of April, 1940 saw a considerable degree of movement on the part of the six British fighter squadrons in France. The invasion of Denmark and Norway by Germany on April 9th caused a rise of tension in France, and intelligence sources once more indicated an imminent invasion in the Low Countries. On April 11th "Readiness No. 2" was ordered by H. Q. B.A.F.F. and remained, with a brief exception, in force for a week. This was the moment agreed to carry out certain rearrangements of the fighter squadrons, and these were duly effected. The two squadrons of No. 67 Wing in the Verdun area were withdrawn on April 11th to the A.A.S.F. area, where they would be better situated for giving cover to bombing operations in Belgium. No. 67 Wing
 See pages

/Headquarters

C.O.S. (40)203

C.O.S. (40)206

D. of Plans
 Form 510
 Appendix 239
 2/2/40.

Headquarters accordingly retired from Busay la Cote to Juvincourt; No. 1 Squadron from Vassincourt to Berry-au-Bac, the aerodrome of No. 142 (Bomber) Squadron; and No. 73 Squadron from Etain-Rouvres to Reims Champagne, where No. 226 (Bomber) squadron was already situated. The move was carried out smoothly since no other formations of the A.A.S.F. were involved, and there was thus plenty of transport to be had from the bomber wings. It was reversed on April 19th when the Wing Headquarters and its two squadrons returned to their forward stations on the relaxation of the tension.

The fighters of No. 14 Group Air Component, were similarly occupied during this period, though the reason for a move in this case was rather the need to secure adequate dispersal of the fighter squadrons in a period of emergency. It is not easy to follow the movements in the absence of the records of the two wings concerned, and of Air Component Headquarters, for this period, but it seems that on April 10th and 11th the two squadrons of No. 60 Wing moved back from the exposed Lille Seclin, which was, however, to be used as an advanced landing ground, and to be occupied by one of the reinforcing squadrons. H.Q. No. 60 Wing and No. 87 Squadron, withdrew south to Amiens-Glisay; No. 85 Squadron to Mons en Chaussée, near Peronne. Equally, on April 12th the squadrons of No. 61 Wing carried out corresponding movements: for H.Q. No. 61 Wing and No. 607 Squadron retired from Vitry-en-Artois to Abbeville, leaving Vitry for the use of the second reinforcing squadron, and as an advanced landing ground, while No. 615 Squadron retired to Poix. No reinforcing squadrons, however, were sent out during the period of the dispersal, which lasted until 26/27th, on which dates H.Q. 60 Wing and No. 85 Squadron returned to Lille-Seclin, and No. 607 Squadron to Vitry. H.Q. 61 Wing, however, remained at Abbeville for the re-equipment of No. 615 squadron with Hurricanes, one flight of the squadron immediately proceeding from Poix to Abbeville, and the other flight being equipped at Abbeville a little later. No. 87 Squadron was under entirely different orders: for twelve of its aircraft were to make a composite formation with six Lysanders of No. 2 Squadron, for work with the 51st Division, now being sent to the area of the Maginot Line. The composite 2/87 formation was installed by May 3rd at Jonon aerodrome, near Etain, in the zone of the Third French Army, but it had barely become established before the German invasion began, and the Hurricanes were hastily ordered back to Lille, whither the remainder of the squadron had already been transferred.

The opening days of May saw some tendency to alter the plans of reinforcement for France in favour of the operations against Narvik, but actually little was changed save that No.46 Squadron was detailed for Norway, and No.504 Squadron later took its place as a reinforcement for France. The German attack then opened on May 10th, and was immediately recognised as the occasion for putting the reinforcement plans into operation. The circumstances of the moment dictated a slight change of disposition in that three squadrons were sent to the Air Component, and one to the A.A.S.F. instead of two to both formations; but this did not alter the broad fact that we fully implemented our promise of reinforcing the six squadrons already in France with four more from home. We also began to operate from home bases those patrols along the seaward flank of the Seventh Army which we had undertaken to supply. The course of the campaign was then to occasion the strongest possible pressure from the French for further fighter reinforcement - a matter which is dealt with in the narrative subsequent to May 10th.*

IV. THE REDISPOSITION, REORGANISATION AND
REINFORCEMENT OF THE BOMBER SQUADRONS.

The Retention of the A.A.S.F. Second Echelon
in the United Kingdom.

It has already been explained that our original intention was to follow the ten Battle squadrons of the A.A.S.F. with a second echelon of ten Blenheim squadrons. ² The lack of prepared satellites, however, coupled with the need for adequate dispersion had caused the Battles to occupy all the ten main aerodromes allotted by the French, instead of restricting themselves to five. Such a dispersion, if it were to be anything other than for a few days, could be achieved only by holding up the despatch of the Blenheims. The future of these squadrons was to be a matter of debate and change of plan, which it will be necessary to follow to some degree.

No firm decision on the despatch was at first taken, the matter rather assuming the character of a series of postponements. In addition to the aerodrome situation in France, there were other relevant factors behind the failure to despatch the Blenheims. It was calculated that the move would entail a decrease in operational efficiency for 18 days, and a complete cessation of operational possibility for 3 days. This seemed undesirable at a time (September 1939) when General Gamelin was contemplating operations of some importance on the Saar front, for we should need our air forces at maximum efficiency if there were big German reactions to General Gamelin's move. Equally, the Air Staff was probably by no means sorry to see the Blenheims retained on this side of the Channel. When in France they might be involved in ineffective air operations in support of an ineffective French land operation. In addition we ourselves were contemplating air action against the German fleet at sea, and Bomber Command was not anxious to lose the Blenheims at this juncture. All these reasons combined to urge postponing. until October the despatch of the Blenheims - which had now been reduced to six active squadrons, three of the remainder having been detailed to No. 6 Group for operational training work.

When this subject was put to the French at a conference at General Gamelin's Headquarters on September 21st, General Vuillemin at first suggested it would be better to keep the Blenheims in England for use against a possible German move through Belgium, but also to build up reserve sets of equipment in France so that the squadrons could operate rapidly in that country if the need came. When he was told

/that

E. of Plans
Form 540
Appn. 37.
21/9/39.

that reserve equipment and personnel did not exist save in training schools from which they could not be spared, he inclined to the view that the Blenheims should be brought over. This opinion did not prevail with the Air Staff, for a few days later the French were informed that we proposed to keep the Blenheims in England during October. The reason given for this was that the most probable line of German advance, (in the opinion of General Gamelin) was through Southern Holland and Belgium, and that the Blenheims could operate very effectively from England against "permanent" objectives on this line of advance, such as the Belgian demolition points along the Albert Canal and the Meuse. The Battles from France could take on the "fleeting" objectives between the Liège - Namur section of the Meuse and the south-eastern corner of Luxembourg. Such a distribution of tasks would in the opinion of the Air Staff make for maximum efficiency, for though the Blenheims would be somewhat further from their area of operations if they remained based in England, they would be securer from attack, they would give the Battles more aerodrome space in France, and they would be able to develop a greater effort from their own home bases. In addition, if the Germans were to attack only through Luxembourg, the Blenheims could be brought in to the battle by means of refuelling in France, for which arrangements had already been made.

These considerations were to prevail not only for October, but for the rest of the period before May 10th. The main points were always that suitable aerodromes and effective protection were difficult to obtain in France, that maintenance and supply was easier in England, and that we believed the Blenheims could operate over the northern area as well from England as they could from France. From the subsequent history of the active campaign, it can only be concluded that that was a very fortunate decision: for though to operate from French bases might at first have been a little quicker than it actually was from England, it would have caught the Blenheims up in the retirements which soon followed, and would certainly have entailed great losses of equipment.

Plans for Blenheim Reinforcement on a Servicing Basis.

A.M. File
S. 2505

Bomber Cmd.
Operation
Instruction
No. 14 and
Bomber Cmd.
Admin. Instruction
No. 2 1/11/39.

A decision to abandon the original organization of the second echelon was not taken until November 21st, and up to this date the transfer of the Blenheims to France on a permanent basis might have been ordered at any moment. Afterwards however, the plan that remained in being was the alternative which had been developed as soon as the move was first postponed. This project

/was to

was to despatch four Blenheim squadrons, in case of need, to operate for periods of approximately three days from A.A.S.F. aerodromes on a servicing basis only. For this purpose three additional servicing flights, beyond the five with the First Echelon, had been sent to the A.A.S.F. area on September 16th; while the Air Stores Parks with the A.A.S.F. were stocked with sufficient Blenheim spares for six squadrons operating over an estimated period of a month. The intention was that the four squadrons could thus fly over at some twenty-four hours notice, additional personnel and stores being transported in civil aircraft. The provision for which the plan was especially designed was the possibility that Germany might attack only through Luxembourg and along the Eastern Frontier of France, in which case the Blenheims would not have been able to operate over the battle area from England.

A.A.S.F.
Admin.
Instruction
No. 19 30/4/40
& Bomber Cmd.
Admin. Instr.
No. 6 11/5/40

This plan remained in being until April 1940, when it was extended to cover the possibility of six Blenheim squadrons (instead of four) operating temporarily from A.A.S.F. bases. This was possible because two A.A.S.F. squadrons originally equipped with Battles - Nos. 15 and 40 - which had returned to England^{xx} and been replaced in France by two Blenheim squadrons, had now been re-equipped with Blenheims, and could form part of the operational resources of No. 2 Group. The possibility that six Blenheim squadrons might operate from A.A.S.F. bases was viewed with some concern by Air Marshal Barratt, for plans also existed for the possible despatch of two extra fighter squadrons from England to the A.A.S.F. area. As the two fighter squadrons in the Verdun-Metz area were also to be withdrawn into the A.A.S.F. area when active land operations began, this might have meant that ten extra squadrons (six Blenheim, four Hurricane) would be disposed on the A.A.S.F. aerodromes, thereby leading to precisely that degree of congestion which the holding up of the Second Echelon had been designed to avoid. Plans had thus to be made by the A.A.S.F. for two separate contingencies - that the six Blenheim squadrons alone would come out, and that the Blenheim squadrons would be augmented by two Hurricanes squadrons from England. It becomes obvious that these reinforcements plans - especially when taken in conjunction with projects of refuelling heavy bomber squadrons as well - must have caused many administrative headaches at B.A.F.F. and A.A.S.F. Headquarters. As it /was

was, plans were barely completed by the time of the German invasion, for Bomber Command's Administrative Instruction was not issued until 11th May, and the two additional servicing flights that had been promised had been diverted to Norway. The fact that the German attack fell on Holland and Belgium, however, fortunately rendered it unnecessary to put the plans into effect, for the Blenheims could - and did - operate from their British bases.

Plans for operating Heavy Bombers from France.

In addition to the scheme for operating Blenheims under A.A.S.F. control on a servicing basis, some projects for refuelling heavy bombers were developed. From the first week of the war onwards, Whitleys of No. 4 Group operated from Reims, and then from Villeneuve on pamphlet dropping activities, refuelling at these stations. For this, better provision was made in the form of two servicing flight sections (Nos. 7 and 8), which were given a more liberal establishment in equipment and personnel than those earmarked for work with the reinforcing Blenheim squadrons. This was the only organisation actually completed in France for heavy bombers before May 10th, but from March onwards numerous projects had been debated between Air Ministry, Bomber Command, and B.A.F.F. Headquarters. Air Marshal Barratt, in fact, states that he was "constantly being warned by Air Ministry of approaching requirements for the refuelling of large numbers of heavy bombers in France," and exploration of these possibilities must certainly have taken up a great deal of time at B.A.F.F. Headquarters. The impulse behind these projects arose from these facts:- that many fresh war plans had now been developed, notably W.A. 8 (the attack on Germany by night) and W.A. 16 (the mining of Germany's inland waterways by night); that modifications such as increased armour and self-sealing tanks had reduced the operational range of many of our aircraft; and that until the Low Countries were opened to passage by our aircraft, the implementation of many of our major plans essentially depended on refuelling in France. Bomber Command was therefore anxious to operate up to six heavy bomber squadrons from France from aerodromes with the necessary refuelling and night flying facilities.

Such a project had necessarily to be approached from a long-term and a short-term aspect. With the completion of five further aerodromes which could be earmarked for heavy bomber squadrons, many of the difficulties would vanish, and heavy squadrons could not only refuel in France, but be based there, either temporarily or permanently. Provision had been made for this in the plan of aerodrome construction, and plans for forming a

/heavy

Air Marshal
Barratt's
despatch,
para. 44.

A.H.B.
IIH2/127
(1a)

heavy Bomber group in France were developed. None of the new aerodromes suitable for heavy bombers, however, - either those originally destined for this purpose, or those diverted to this purpose as the requirement became more pressing - was to be ready before July, 1940; and this, in consequence, involved short-term plans for refuelling at the ten existing aerodromes of the A.A.S.F., until such time as the new aerodromes should be ready. Since these ten aerodromes, in addition to the ten medium bomber squadrons already on them, were possibly to receive in a crisis four Hurricane and six Blenheim squadrons as well, the resulting congestion, in addition to all the other administrative and operational problems involved, would obviously have made the full plan for six heavy squadrons impossible.

In response to this difficulty of accommodation, together with the further problems associated with increased facilities for communications, servicing, supply, operational and regional control, and D/F homing, Bomber Command's project was therefore reduced to one for servicing 48 heavy bombers every twenty-four hours. These were to be so despatched that not more than six were in the A.A.S.F. area at a time, if the Blenheim reinforcement plans was also in force. To deal with these heavy bombers, it was proposed to send to France two heavy bomber servicing flights, to be on a considerably larger establishment than the existing medium bomber servicing flights with the A.A.S.F., (then eight in number, but scheduled for increase to ten).

None of these plans, however, succeeded in relieving the anxiety of Air Marshal Barratt and his staff about aerodrome congestion; and though they were prepared to make the necessary provisions if it was deemed essential they, throughout, expressed grave doubts as to the wisdom of operating heavies, in addition to a full quota of reinforcing Blenheims from the existing A.A.S.F. bases. In their view, the plan was both dangerous and liable to lead to a diminution of A.A.S.F. efficiency, until new aerodromes could come into service in July, and until a Heavy Bomber Wing Headquarters had been established in France. The debates, however, proved to be academic; the Germans struck before the heavy bomber services had been created, and the opening of the Low Countries to direct flight across their territory made it unnecessary to refuel the heavies in France. A further commitment, however, arose during the course of the active campaign - the decision to operate Wellingtons from the South of France against Italian targets. The history of this episode is recorded later.*

A.H.B.
IIH2/127
(9a)

Re-equipment of the A.A.S.F. Squadrons.

It will be convenient at this point to deal with the scheme for re-equipping the A.A.S.F. bomber squadrons. The Battle was generally recognised as an obsolescent aircraft, and it is difficult to find any great volume of belief in its operational qualities. It had been sent to France, not because it was an ideal aircraft, but because of considerations of range, and because our heavy bombers had not been constructed for the role which our medium aircraft were expected to undertake - for example, low-flying attack on the heads of advancing columns at bottlenecks. For this role, to be carried out by day, the Battles had been trained before they went to France. The main considerations in favour of the aircraft for this type of work were its manoeuvrability, and the fact that it could be used for bombing from a shallow or medium dive. Its main disadvantages were its slow speed at low altitudes, and its lamentable lack of fire power, for the rear-gun in the model which went to France could not fire below the horizontal. A Battle, or a formation of Battles, had thus only to be forced up to a convenient height by ground fire, and an enemy fighter could deliver a fatal attack from astern and below with ease. It was not contemplated, in September 1939, that the Battles would be used by night, for navigation was difficult in view of the segregation of pilot and observer, and the fact that neither could see much from the aircraft, while the single engine was a further disadvantage.

These various weaknesses of the Battle were widely recognised, and two means of overcoming them were contemplated - the introduction of improvements into the Battle, and the re-equipment of the A.A.S.F. squadrons with Blenheims. The former policy became of importance only when the latter was abandoned. The scheme for re-equipping the ten Battle squadrons of the A.A.S.F. with Blenheims was initiated in October, 1939, the intention being to bring back the Battle squadrons in pairs, at intervals of about six weeks and while they were re-equipping in this country to replace them temporarily in France by Blenheim squadrons of No. 2 Group. Other demands for Blenheim aircraft, however, - in particular the formation of several new Blenheim fighter squadrons which began in October, and the necessity of exchanging the Blenheim I's in the Air Component at strategic reconnaissance squadrons for Blenheim IV's - held up the scheme, which did not get beyond the first pair of squadrons. On December 2nd,

A.H.B.
II/H2/514
Section
II
Part 5

Bomber
Command
adminis-
trative
Instruc-
tion
No. 1
13/10/39

Bomber
Command
Form 540
(Adminis-
trative)
for

/No.

for
 27/10/39
 15/11/39
 17/11/39
 3/12/39
 4/12/39
 21/12/39

A.M. file
 2563

No. 139 Squadron (Blenheims) flew to Betheniville, and No. 40 Squadron (Battles) returned to England to re-equip; and a week later No. 114 Squadron (Blenheims) took the place of No. 15 Squadron (Battles) at Conde Vraux. A decision to postpone further progress in the scheme until the autumn of 1940, was taken shortly afterwards and the two Blenheim squadrons therefore remained in France on a permanent basis; the two Battle squadrons were re-equipped in England in time to take part from this country in the operations of May and June. From December 9th, 1939, until the German attack in May, 1940, the A.A.S.F. bombing force thus consisted of eight Battle and two Blenheim squadrons, instead of ten Battle squadrons as before.

Administrative Reorganisation.

From December, 1939 when the two Blenheim squadrons came out to take place of the two Battle squadrons, until the German attack in May 1940, there was only one substantial change in the administrative organisation of the A.A.S.F. Bomber squadrons. This was the regrouping of the ten squadrons into three Wings, instead of the original five. The original Wings had been designed for each to administer two squadrons on one aerodrome, and they thus had most of the mechanical transport under their direct control. When the ten squadrons were dispersed so that they occupied ten aerodromes,* however, the Wing organisation obviously needed revision, particularly in regard to transport. It was also realised that, provided the squadrons were grouped appropriately and given increases in transport, one Wing could look after more than two squadrons. The reorganisation was carried out in February 1940, and was effected by disbanding Nos. 72 and 74 Wing Headquarters, and dividing their four squadrons between Nos. 71, 75 and 76 Wings, which were retained. New establishments for personnel and transport were provided by Air Ministry, and after some slight revision of location for the sake of convenience, the Wing organisation appeared thus:-

No. 71 Wing (Group Captain H. S. Field...
(from Bétheniville to)
Chateau Fagnières near
Châlons

No. 105 Squadron (Battles).... Villeneuve

No. 114 " (Blenheims).. Condé-Vraux

No. 139 " (").. (from
Bétheniville to)
Plivot

No. 150 " (Battles).... Ecury

No. 75 Wing (Group Captain A. H. Wann).. St. Hilaire
le Grand
(Auberive)

No. 88 Squadron (Battles).... Mourmelon

No. 103 " (").... (from Plivot
to) Bétheniville

No. 218 " (").... Auberive

No. 76 Wing (Group Captain H. S. Kerby).. (from Berry
au Bac to)
Neufchâtel

No. 12 Squadron (Battles).... Amifontaine

No. 142 " (").... Berry au Bac

No. 226 " (").... Reims-Champagne

In this shape and in these dispositions the A.A.S.F. bomber forces were to stay until the withdrawal to the South Champagne area on May 16th.

12

Position in October, 1939

There were no forces intended purely or primarily for reconnaissance with the A.A.S.F.; all the aircraft for this purpose were under the Air Component, with the exception of the special high-flying reconnaissance facilities which developed later and which were attached direct to B.A.F.F. Headquarters. It has already been indicated that the Air Component reconnaissance forces in France by October 12th 1939 consisted of the following:-

No. 70 (Bomber-Reconnaissance) Wing.....Roya-Amy
No. 18 Squadron (16 I.E. Blenheim I)....Roya-Amy
No. 57 " { " " }.....Roya-Amy

No. 50 (Army Co-operation) Wing,.....Athies
No. 4 Squadron (12 I.E. Lysander II)..Mons-en-
Chaussée
No. 13 " (" " ")..Mons-en-
Chaussée
No. 53 " (" Blenheim IV)..Polx

No. 51 (Army Co-operation) Wing,.....Abbeville
No. 2 Squadron (12 I. E. Lysander I)....Abbeville
No. 26 " { " " II)....Abbeville
No. 59 " { " Blenheim IV)....Poix

Of these, the Bomber-Reconnaissance Wing (No. 70) was intended primarily for long range reconnaissance under G.H.Q.; No. 50 Wing for tactical reconnaissance with I Corps; and No. 51 Wing for tactical reconnaissance with II Corps. It will be noticed that the two Army Co-operation Wings each included a Blenheim squadron for night reconnaissance, as well as two Lysander squadrons for day reconnaissance. By October 12th one of these Blenheim squadrons (No. 53) had already been detached for strategic reconnaissance over Germany under G.H.Q. orders, operating from Plivot in the A.A.S.F. area, and refuelling at Metz. It was then relieved by the strategic reconnaissance of No. 70 Wing, whose aircraft remained based at Roye, but refuelled at Metz or Etain-Rouvres.

On October 18th, an adjustment of disposition was necessitated by the French requiring the use of Roze-Army, and No. 70 Wing headquarters, with its two squadrons, moved to the aerodrome of Rosières, a few miles north of Roze. An advance detachment of the Wing was also maintained at Lille-Seclin.

Formation of No. 52 Wing.

The first change in the general scheme of organisation came from the necessity of creating a separate body to administer the night reconnaissance squadrons attached to I and II Corps. These squadrons were both at Poix aerodrome, but they belonged to separate Wings, and in the

/absence

absence of active land operations an affiliation directly to Corps rather than to G.H.Q. was unnecessary. The administrative organisation formed for them at Poix was at first termed No. 53/59 Wing; on November 8th this was re-christened No. 52 Wing, but, as yet, had merely a nucleus establishment. By December 13th, however, No. 52 Wing Headquarters had been brought up to strength, and took over full administration, together with supervision of training and operations of the two squadrons, which were henceforth to be under G.H.Q. control and to revert to Corps control only after the opening phase of the expected German invasion of the Low Countries. On January 28th, the Wing headquarters moved to Courcelles, a short distance from Rosières aerodrome, where the squadrons remained. It was not until April 30th/May 1st that the new Wing carried out an operational sortie - which was also the first operational sortie by No. 59 squadron since the declaration of war.

Revision of allotment of reconnaissance to the
E. E. F. Air Ministry - War Office discussions

The background to the remaining changes which occurred was a lengthy and at one stage acrimonious debate between the Air Ministry and the War Office on air requirements for the Army.

For many years, of course, the composition of an Air Component (at first called an Air 'Complement' or 'Contingent') for the Field Force had been discussed between the Air Ministry and War Office. In 1930, for example, the figure provisionally agreed had been an initial despatch of 3 army co-operation, 1 fighter and 2 bomber squadrons, rising to 5 army co-operation, 5 fighter and 7 bomber squadrons within six months. Such a figure was, however, entirely tentative, for as the years proceeded the character and probable destination of the Field Force changed. By 1937 the agreed figure was 7 army-co-operation, 4 fighter and 2 bomber squadrons, and it is interesting to note that the squadrons earmarked at this date included many which were actually despatched in 1939. For example, Nos. 2, 4, 13, 16 and 26; Nos. 53 and 59; and Nos. 18 and 57. In addition, six bomber squadrons were to work for the Field Force if the general situation permitted - but as an independent striking force rather than an integrated part of the Field Force organisation. At this time, however, and in the following year, the Field Force was very small - in September, 1938, for example, the first contingent would have consisted of two or three divisions at the most. It had never been easy to promise provision of what the Army required in the way of air support: but when in the spring of 1939 the conception of a small Field Force was abandoned in favour of one of very considerable size, the situation became enormously aggravated. The Army programme

/announced

A.M. 11
E. 30
A. 37187

announced in May, 1939, for implementation in the autumn of 1940 was a Field Force of 32 Divisions, with 7 Corps Headquarters, to be overseas within twelve months of the outbreak of hostilities. Had the basis suggested earlier in the year (March 31st, 1939) by the War Office been observed (i.e., one Army Co-operation squadron per Corps H.Q. and one per division), this would have meant the despatch overseas, within the same period, of 39 Army Co-operation squadrons. The Army demands did not stop here, however, for a Memorandum by the C.I.G.S. in June 1939 indicated that the new programme should entail allotting to the expanded Field Force not only 39 Army Co-operation squadrons, but 6 long range reconnaissance, 24 'direct support' (i.e. close range bombers), and 4 intercommunication squadrons, together with an undecided number of artillery fire control, fighter and transport squadrons. Obviously such demands, by making great inroads into our supplies of aircraft and crews, could be met only by diverting to Field Force purposes the resources which were intended for home defence and for the creation of a powerful strategic striking force.

In face of demands as drastic as these, a joint War Office-Air Ministry Committee had been formed to consider the whole problem, sub-committees being set-up to deal separately with Army Co-operation, Fighter and Bomber requirements. Of these sub-committees, only that for Army Co-operation had met by the outbreak of war, and it had submitted recommendations - including the allotment of tactical reconnaissance on a Corps, and not a Divisional basis - which would have reduced the number of Army Co-operation squadrons needed for a Field Force of 32 division to a figure of twenty three. This reduction in the demand for reconnaissance aircraft was useful, but it would not, in itself, have avoided upsetting the whole air programme, had the War Office demand for bombers under their own control found favour in higher quarters. This demand had been revived in a particularly acute form by the Secretary of State for War (Mr. Hore-Belisha) soon after the outbreak of hostilities, when his proposals had been for 'direct support' aircraft under army control. The details of the controversy need not be followed here, but they assumed a fairly heated character on such matters as whether we could or could not, afford to devote a considerable part of our air resources to dive-bombers; whether the mass-produced "Brabazon bomber" suggested by the War Office and the motor manufacturers

/was

C.O.S.
924
14/6/39.

L.F. (39) 19
and
W.F. (39)
110, 111,
112

Air Ministry
files
S. 1480 and
S. 1484 passim

was or was not a practical proposition; and whether the War Office proposals did, or did not, imply the creation of a separate "Army Air Arm". In fact, the proposals in regard to bombers failed of acceptance on the Cabinet level; and the assertion of the Army that they had an insufficiently established claim to bombing support was met by the creation of the B.A.F.F. Command in France, and the incorporation of specific duties to the B.E.F. in the directive issued to Air Marshal Barratt.

As part of the settlement with the War Office, the allotment of reconnaissance squadrons was, by January 1940, revised on lines similar, though not identical, to those suggested by the joint Army co-operation sub-committee just before the war. The final agreement between the Air Council and the Army Council provided for the following:-

- (1) each Corps to be provided with one squadron of eighteen Day Reconnaissance aircraft;
- (2) each Army (of two Corps) to be provided with one squadron of eighteen Day Reconnaissance aircraft for sub-allotment to Corps as required;
- (3) each Army (of two Corps) to be provided with one squadron of eighteen Night Reconnaissance aircraft;
- (4) that Strategic Reconnaissance should be the province of squadrons under the orders of G.H.Q., and that not less than two squadrons should be provided for this purpose.

The allotments were to be reviewed in the light of future experience.

These arrangements could naturally not be applied in full until the B.E.F. was reorganised into armies; and this was not achieved during the French campaign. By this scale, however, the B.E.F. was already well endowed with reconnaissance aircraft, and the main changes that were accordingly put into effect, pending the intended reorganisation into armies, were the raising of the initial equipment of the Lysander squadrons from 12 to 18 aircraft; a new allocation to Corps; and the despatch to France in April, 1940, of an additional Lysander squadron - No. 16 - following the arrival of III Corps, and in anticipation of the arrival of IV Corps. It is unnecessary to follow the various changes in detail, and it is difficult to do so in the absence of so many of the Air Component records, but the position that was reached by the time of the German attack was that there were five Lysander squadrons at 18 I.E. in France instead

/of

AHB
VD/2/2
No. 8/40
for
3/1/40

AHB
File ITH2/94
passim

of the original four at 12 I.E. These were allocated to duty with Corps as follows:-

With	I Corps.....	No. 13 Squadron
"	II "	No. 4 "
"	III "	No. 2 "

The remaining two Lysander Squadrons - No. 26 and No. 16, - formed a pool from which G.H.Q. could allocate as necessary. All these five squadrons came under the administrative command of No. 50 Wing, to which No. 51 Wing Headquarters was also attached, pending the new scheme of Army reorganisation. The strategical reconnaissance forces of No. 70 and No. 52 Wing remained, as before, under G.H.Q. control: they were, however, rather better equipped for their task, for during February the two squadrons of No. 70 Wing had exchanged their short-nosed Blenheim I's for the long-nosed Blenheim IV, an aircraft of greater comfort, higher speed and longer range.

Locations of reconnaissance units, May 1940.

It is again difficult, in the absence of many records, to trace the exact distribution of reconnaissance squadrons and detailed flights to aerodromes and landing grounds during the months of April and May. In the first week in May a composite squadron of six Lysanders (of No. 2 Squadron) and twelve Hurricanes (of No. 87) was at Senon, near Metz, for work with the 51st Division near the Maginot Line. Orders were issued for its recall on May 9th, but were cancelled before the move could be executed, only to be reissued after the German invasion the following day.

The location of the remaining reconnaissance squadrons of the Air Component on May 4th may be studied in Appendix C. No official statement was issued as to their location on May 10th, but it was not materially different from that of May 4th. The arrangements that were current on May 10th for the function and operational control of the reconnaissance squadrons and the advanced landing grounds allotted to each, are detailed in the account of 'Plans for the Battle.'

No. 212 Squadron.

In addition to these reconnaissance forces in the Air Component, a new source of information had become available with the formation of No. 212 Squadron. * This was an offshoot of the Photographic Development Unit at Heston which, under Wing Commander F.S. Cotton, had been mastering the problem of very high level reconnaissance by high speed aircraft. Already by November 1939, a special survey flight, consisting of one Spitfire, one Hudson and one Lockheed 12a had been despatched to France, to begin working from Nancy and Lille Seclin directly under the orders of No. 1 Mission. This had returned to Heston during January and a more advanced body - No. 212 Squadron - had been despatched in its place, being formed in France during February 1940. It consisted of six specially equipped Spitfires with a reserve of two aircraft, to be directly under the operational control of B.A.F.F. Headquarters. For this purpose its headquarters were at Tigeaux, near those of B.A.F.F. at Coulommiers, but two detached flights were maintained as before at Lille-Seclin and Nancy, while the aircraft were liable to operate from several advanced aerodromes. Special arrangements had naturally to be made to co-ordinate the work of this new reconnaissance squadron with that of the Air Component squadrons.

* The history of the formation of this unit, and of its activities in France, may be studied in the Air Historical Branch narrative on Photographic Reconnaissance.

VI THE CONSTRUCTION AND IMPROVEMENT OF AERODROMES

The Programme in General

Something of the aerodrome position in France has already become evident in the foregoing pages. Broadly speaking by the time the A.A.S.F. and the Air Component had settled in, the situation was that aerodrome space allotted by the French had been fully occupied, and that there was a pressing need for further accommodation in the interests of the safety, flexibility and expansion of the British Air Forces.

With the A.A.S.F., the situation was rendered more acute by the decision to spread the First Echelon over all ten main aerodromes instead of five, and by the fact that the ten promised satellites were in no condition for immediate use. With the Air Component the main troubles were that many of the aerodromes were too small, were liable to become unserviceable in winter; or were placed either too far back or too far forward. The French, however, were in no position to satisfy the British requirements, for they could spare neither further existing aerodromes, nor material and labour for the construction of fresh ones. In the circumstances it was early decided that the British would have to undertake the construction of new air fields, and the labour of improving most of those which already existed.

The policy for aerodrome expansion, as it was settled in October, 1939, made provision for fresh construction in five separate areas. These were what was termed the "B.E.F. Forward Area" centring round Arras; the "B.E.F. Rear Area" centring round Abbeville; the "Verdun-Nancy" area; the "South Champagne" area, centring round Troyes, south of the existing A.A.S.F. area; and the "Le Mans-Orleans" area. It will be necessary to examine separately the programme for each of these areas, and the progress made by the time of the German attack. In addition to this new construction, the existing satellites allotted by the French, but as yet unprepared, were to be rendered fit for operations; and the existing aerodromes, which in most cases were badly lacking in accommodation for crews and in general facilities, were to be improved in these respects. Furthermore, many of the existing Air Component aerodromes needed runways laying down if they were to be serviceable the following winter. These combined commitments amounted to something very considerable, for the original programme

of new construction alone was for 25 main aerodromes with 25 satellite landing grounds, and subsequent alterations increased this total to fifty-nine. Moreover, the work was scheduled for completion in no very great length of time, for though the different areas were given different degrees of priority, the earliest were to be completed by March, the intermediate by July, and the latest by December, 1940.

Under the agreed policy, responsibility for aerodrome construction was divided. In the Orleans - Le Mans area a special system obtained, for No.1 Mission (and later, B.A.F.F. Headquarters) was used to negotiate with the French for sites, but the selection of these and the actual work of construction remained the direct responsibility of the Air Ministry. Air Commodore Darley was detailed by the Air Ministry for the selection of sites, and a special administrative framework for the building programme was set up in the form of No.1 Air Ministry Works Area, under the command of Wing Commander Dew. In the remaining areas, however, the responsibility was arranged differently. For engineering sources the R.A.F. was dependent on the Army, and hence the actual work of improvement and construction became the general responsibility of the Engineer-in-Chief, B.E.F. - Major-General Pakenham - Walsh, who had to ensure with the War Office the supply of labour and material. Inside the actual areas of construction an organisation was built up during the winter so that engineering authority was exercised by Chief Resident Engineers, who worked under an Engineer-in-Chief Air Component (for the two B.E.F. areas) and an Engineer-in-Chief, A.A.S.F. (for the A.A.S.F. South Champagne and Verdun-Nancy Areas). Higher policy in all this was handled with G.H.Q. and the Air Ministry by No.1 Mission (later B.A.F.F. Headquarters), as was also the negotiation with the French for sites for the new fields. Day to day administration, however, remained largely with the Air Component or the A.A.S.F., who carried out details within a policy framework settled on a higher level.

Many factors were responsible for delay in implementing the aerodrome programme. Each area had special problems of its own, which will be examined later: but beyond this there were certain factors common to all areas. The difficulty of finding suitable sites, and persuading the French to release them, varied from area to area: in general the French were most anxious in general terms to expedite our programme, for the aerodrome situation would profoundly influence the degree of reinforcement we decided to send to France, but difficulties of detail were

bound to occur. Everything had to start from scratch, and in an allied country it was probably impossible to make very swift initial progress. Thus, although orders for reconnaissance of sites were issued towards the end of October, the full quota had not been found by the time the British Forces left France. This, however, was largely because of the special difficulties of two areas - the Verdun-Nancy - Metz area, which French forces were occupying in strength, and the Le Mans - Orleans area, where there was special opposition to requisitioning any of the rich cornland of the 'Beauce'. In the remaining areas, which occupied the higher degrees of priority, the selection and requisitioning of sites did not go too badly, and these initial steps had been taken in the great majority of cases by the end of 1939.

Administrative plans for construction were complete by the end of November, but this did not mean that work could begin on any great scale. The first limiting factor was labour: for in actual resources already in France the British were even worse off than the French, whose shortage was acute. Side by side with this, there was no ready made supply of materials, or of essential equipment such as tipping lorries and mechanical diggers. Labour and equipment had all to be found in Great Britain and there was little that could be spared immediately. It was not until the end of March 1940, that an adequate works organisation could be built up. During February and March enlisted labour had become available in appropriate amounts from the United Kingdom, for the following arrived in France:-

A. H. B.
file
IIH2/113
(81a)

- 27 General Construction Companies.
R. E. - consisting of building trades and concreting units (about 7000 men)
- 2 Artisan Works Companies R. E. - (= about 500 men)
- 2 Army Troops Companies R. E. -
(building and water supply unit)
(about 500 men)
- 12 Road Construction Companies R. E.
(= about 100 men).
- 1 Works Transport Company. R. E. =
a transport unit with tipping lorries. (100 lorries)

8 Labour Companies, Pioneer Corps -
unskilled labour (about 2000 men)

Thus over 10,000 men had arrived for labour by the end of March, while during April further R.E. contingents became available together with the unskilled labour of the 23rd Division.

By April two of the difficulties - the exceptionally severe winter of 1939/1940 and the labour shortage - had disappeared, but still progress could not keep pace with the programme. The main reason for delay in the most important area, that of the B.E.F., where many runways were called for, was now the failure of material to arrive in sufficient quantities at sites. Thus, for instance, on April 3rd the A.O.C. Air Component complained to Headquarters B.A.F.F. that of the 8000 to 10,000 tons of material a day demanded by Air Component no more than 1500 tons was arriving, as a result of which 50% of the labour was not employed. This position seems to have arisen not so much from an actual absence of material, as from transport problems, the most serious of which was at first the shortage of railway trucks and locomotives in France. Equally it was not easy to import and utilise British trucks without delay, for they had to be fitted with pneumatic brakes before operating over French track, in accordance with a requirement of French law and apparently of French locomotives. There was also a most acute shortage of lorries, which was particularly felt in transporting the material for the construction of access roads.

The foregoing paragraphs have indicated some of the reasons which delayed progress in general. It will now be convenient to examine what was planned in each area and what had been achieved by May, 1940.

The B.E.F. Forward Area.

The area which was throughout given the highest degree of priority was the B.E.F. Forward Area. The original intention here was to construct five new aerodromes, each with a relief landing ground, so that the Air Component would be able to disperse more readily; to receive an increase in the number and initial equipment of its Lysander squadrons, together with fighter reinforcements; and to operate Lysanders and fighters from positions well forward. The particular difficulties of the Forward Area soil, however - in particular its propensity to turn into deep mud in the

/winter

A.H.B.
file
IIH2/114,
(18a and
20a)

A.H.B.
file
IIH2/117.

winter - necessitated laying down runways on the satellites as well as the main aerodromes. The final programme was for five main aerodromes, (of which two were to be suitable for any type of aircraft, and three for Lysander-type Army Co-operation aircraft only), and four satellites (all of which were to be suitable for operating the fighters of the emergency reinforcement plans). In the building programme the real distinction consequently became not so much that between main and satellite, as that between grounds to receive all types of aircraft, and grounds to receive Lysanders only. The former were termed class 'A', and were to have two hard runways each of 1100 x 50 yards; the latter were termed class 'B', and with the exception of Authie which had well established grass, were to have two hard runways each of 900 x 50 yards.

According to the policy laid down in November 1939, all these grounds in the B.E.F. Forward area were to be finished by March 31st, 1940. The difficulties of weather, labour, equipment, material and transport which have been examined above supervened. The position of the aerodromes and the degree of progress made by May 10th will best be shown in tabular form:-

NEW AERODROMES IN THE B.E.F. FORWARD AREA

Aerodrome	Pin Point (GSGS. 4042)	Type	Progress in tracking by May 10th
Authie	N. 2682	Main Class 'B'	(In grass only, practically complete)
Nancy	N. 1205	Main Class 'B'	10 days' work needed
Grevillers	N. 4779	Satellite Class 'A'	10 days' work needed
Beauvoir	N. 1395	Satellite Class 'A'	12 days' work needed
Thelus	H. 4905	Main Class 'A'	12 days' work needed
Dieval	H. 2317	Main Class 'A'	19 days' work needed
Monchy Breton	H. 2413	Satellite Class 'A'	Ready as grass, Runway not started.
St. Leger	N. 5487	Satellite Class 'A'	(Details uncertain)
Staple	H. 2952	Main Class 'B'	(Details uncertain)

In the event, none of these grounds was used by British aircraft during the campaign, and the whole work went for nothing.

The B.E.F. Rear Area.

The intention behind the construction of new aerodromes in the B.E.F. Rear Area was to give flexibility to the Air Component forces, to provide for an increase in the number of long-range reconnaissance squadrons, and in general to serve the needs of British air reinforcement as a whole. Whereas there was an understanding that all the nine new Forward aerodromes were for the use of the Air Component and its reinforcements, the arrangement in regard to the new aerodromes of the rear area was that they should be at the general disposal of British Air Forces in France, and thus they might or might not actually be used by the Air Component. In consequence these aerodromes had all to be of a size suitable for the operation of Blenheim types. The programme of new construction for the Rear Area was, however, less exacting than that for the Forward Area, for although five main aerodromes and five satellites were required, these were originally to be in grass only. A sowing in March, 1940 was the earliest practicable, and the aerodromes were therefore to be ready for operational use by the time of the appearance of firm grass in mid-July. This policy was adopted because it was possible to avoid clay and choose some sites with immediate subsoil of chalk in the Rear Area; while there was not the same necessity for proximity to railways (involving a natural tendency to low ground) as there had been in the Forward Area. Nevertheless during the spring of 1940 the A.O.C. Air Component considered it necessary for five of these grounds to be tracked, to make certain of their operational value in winter. This requirement was, however, overruled from Air Ministry at the beginning of April, in the interests of the general aerodrome programme, and more particularly as it had now been decided to reduce the B.E.F. Rear Area to a degree of priority below that of the South Champagne Area. In consequence all these aerodromes remained as originally intended, in grass only, and as grass aerodromes they would probably have been complete by their scheduled date, mid-July. As it was, some were on the point of being used by the Air Component forces when the decision was taken for the withdrawal to the United Kingdom.

A. H. B.
File IIM2/117
(63a)
File IIM2/121
(27a)

The progress made with these grass aerodromes in the Rear Area may be seen in brief in the following table, which is based on a reconnaissance carried out on May 14th, 1940, and a report the following day by the Chief Engineer, Air Component.

New Grass Aerodromes in the B.E.F. Rear Area

Aerodrome	Pin Point (G. S. G. S.) 4042	Type	Condition on May 14/15th, 1940
Airaines	M. 8571	Main	Fit for use. Operation huts being erected.
Conteville	M. 9489	Satellite to Lannoy	" " " " " "
Rambures	M. 6785	Main	" " " " " "
Brutelles	M. 5788	Satellite to Gros Jacques	" " " about to be erected
Crecy	G. 8305	Main	" " " Occupied 15/5/40.
Estrees	M. 8999	Satellite to Crecy.	Opinions contradictory. Power cables obstructing flying gap to S.W.
Gros Jacques	M. 5082	Main.	Two days' work needed.
Lannoy	M. 9896	Main.	Four day's work needed: Power cables & wires would then still obstruct S.W. approach.
Scues	M. 9167	Satellite to Airaines	Four or five days' work needed. Very rough surface.
Presnevillie	M. 7559	Satellite to Rambures	Not ready.

A. H. B.
File IIM2/117
(62a)

On May 15th it was arranged that communications from these aerodromes should be established within two days to the local French P.T.T. at Auxi le Chateau, Abbeville, and Eu; but the plan for withdrawal, dictated by the rapid German advance, supervened, and though most of the aerodromes could thus have been put into emergency use before their due period, in fact they were not used, and this work too went for nothing.

Improvements to Existing Aerodromes in the B.E.F. Area.

Before leaving the B.E.F. areas, it will be convenient to glance at the improvements which were contemplated to the existing aerodromes. The number of aerodromes in the original allotment by the French was in appearances quite ample for the needs of the Air Component as it was despatched by October, 1939. Various factors, however, detracted from the value of many of these

aerodromes, for some were too small, some were inconveniently situated, some (or most) were muddy in bad weather (and suffered considerably from use in the first winter of the war); and nearly all left much to be desired in the way of accommodation. It was possible to effect some improvements by exchanges with the French, by the addition of a newly allotted aerodromes, such as Le Touquet, or by the acquisition of emergency dispersal facilities on French aerodromes. Broadly speaking, however, the position could be remedied only by fresh construction, which has already been examined, by improvements to the existing main aerodromes, and by the development of satellites normally at our disposal, but in practice as yet unfit for operations. In general the main type of improvement contemplated for the main aerodromes was in the way of accommodation and by the addition of runways, while that for the satellites was largely the removal of obstructions, the making of servicing roads and the improvement of the aerodrome surfaces. Some of the accommodation projects were carried out, particularly in the provision of hutting. The addition of runways, however, was never put into practice. It was urgently stressed by the A.O.C. Air Component that runways were needed on at least seven of his main aerodromes, but it was decided to give this work lower priority than the runways for the new aerodromes, and in consequence it had not been started by the time of the withdrawal. Work on some of the satellites, however, - for example, Moyencourt and Bertangles - had been completed by the time of the German attack; and the power cables, which had long obstructed Lille - Nancy, in spite of a French obligation to remove them, had been cleared. The following is a list of the aerodromes which were actually available for the Air Component at the beginning of May:-

AERODROMES AVAILABLE FOR THE AIR COMPONENT

I. Forward of a line St. Omer - Amiens.

Aerodrome	Pin Point (CSGS 4042)	Type	Main Unit in occupation May 4th
Lille-Marcq	H. 7142)	Suitable for all types of aircraft	- A.L.G. -
Lille-Seclin	H. 7229)	- Ditto -	Nos. 85 & 87 Sqdns. (Hurricanes)
Merville	H. 4037) forward (east- erly)	- Ditto -	No. 63 F.W.S.U. (for (Hurricane reinforcement
Vitry	H. 6024 6204 aero- dromes	- Ditto -	No. 607 Sqd. (Hurricanes)
Mons-en- Chaussee	M. 6252	- Ditto -	No. 4 Sqdn. (Lysanders)
Rosières	N. 4146) southerly	- Ditto -	Nos. 18 & 57 Sqds. (Blenheims)
Amiens-Clisy	N. 1555) aerodromes	- Ditto -	No. 24 Sqd. (Detachment (communication)

Aerodrome	Pin Point (CSGS 4042)	Type	Main Unit in occupation May 4th
Lille-Ronchin H. 7134	} Forward (Easter- ly) aero- dromes }	Small type suitable for A-C and Communi- cation Aircraft	Advanced landing- grounds for Lysander
Roubaix-Flers H. 7455		- ditto -	
Douai H. 6606		- ditto -	
Bethune H. 3423		- ditto -	
Arras H. 4400		- ditto -	
Peronne (Civil)	N. 5757	Southerly Aerodrome - ditto -	No. 81 (Communication) Sqd. Detachment No. 13 Sqdn. (Lysanders)

(In addition the Air Component apparently had emergency dispersal rights at the French-occupied aerodromes of Denain and Norrent Fontes)

II To the Rear of a line St. Omer - Amiens

Le Touquet	G. 6730	Suitable for all types of aircraft	(For detachments on leave-boat patrol)
Abbeville	M. 7987	- ditto -	No. 2 Sqd. (Lysanders) & No. 615 Sqd. (re-equip- ping to Hurricanes)
Moyencourt	M. 9047	- ditto -	(Satellite for Poix)
Poix	M. 8550	- ditto -	Nos. 53 & 59 Sqd. (Blenheims)
Dieppe	M. 2263	- ditto -	No. 26 Sqd. (Lysanders)
Amiens	N. 1054	Small type suitable for A-C & Communi- cation aircraft	No. 81 (Communication)
Bertangles	N. 0965	- ditto -	No. 16 Sqd. (Lysanders)

/The

The South Champagne Area

A.H.B.
file
IIH2/118
passim

The programme for new aerodrome construction in the South Champagne area was laid down in October 1939 as five main and five satellite aerodromes. They were to be suitable for all types of aircraft, but the primary intention was to receive additional squadrons from Bomber Command, whether these were part of the Blenheim reinforcement scheme, or the heavies which it was planned to operate from France should the Low Countries remain neutral. The new airfields were to be grass only, and hence were to be ready for use by mid-July 1940. By the end of December 1939 eight of the ten sites had been chosen and requisitioned, and the remaining two were settled by the end of January 1940. After the labour supply had been organised, one of the main difficulties here appears to have been the shortage of lorries, a large number of which were needed for the construction of access roads. The fact that no runways were considered immediately necessary, however, and the favourable nature of the country, enabled work to proceed with fewer problems and greater speed than in the B.E.F. Forward Area. It thus came about that when the A.A.S.F. were compelled to retire from their positions about Reims by the German penetration near Sedan, most of these new aerodromes were taken into occupation, and used successfully two months before they were scheduled for completion. The aerodromes were thus in the event destined to preserve the existing squadrons of the A.A.S.F. for operations, and not to receive reinforcements, but even so the programme may be said to have justified itself. The following were the aerodromes constructed: since most of them do not appear on the G.S.G.S. 4042 series, their geographical position is indicated in terms of longitude and latitude:-

New Aerodromes in the South Champagne Area

Main Aerodrome	Geographical Position	Satellite	Geographical Position
Vatry (Bussy)	4°-18'E:48°-49'N	Germinon(Villesneux)	4°-11'E:48°-52'N
Allemanche	3°-47'E:48°-57'N	Gaye	3°-49'E:48°-42'N
St. Lucien Ferme	3°-57'E:48°-32'N	Pouan-les-Vallées	4°-04'E:48°-33'N
Le Grandes Chapelles	4°-01'E:48°-29'N	Chapelle-Vallon	4°-03'E:48°-26'N
Faux Villecerf	3°-43'E:48°-22'N	Echemines	3°-50'E:48°-25'N

Just before May 10th, 1940, it was decided that the two northernmost of these grounds - Vatry and Germinon - should be used as satellites for the existing A.A.S.F. aerodromes of Ecury and Villeneuve, and that two further sites should be found in the A.A.S.F. area. All the remaining aerodromes except Chapelle-Vallon were occupied on May 16th when the A.A.S.F. withdrew behind the Marne. During subsequent operations Faux Villecerf was considered to be less suitable as a main aerodrome than its intended satellite. Echemines, which was the more extensively employed.

The Verdun - Metz Area

A.H.B.
File ITH2/120

In addition to these aerodromes south of the A.A.S.F. area, it had also been decided in October 1939 to construct five aerodromes each with one satellite, east of the A.A.S.F. area - i.e. in the district Verdun-Nancy. To find suitable sites in this district proved extremely difficult, as the French military forces were in occupation of much of the area, and the country was by no means easy. By mid-December only six sites had been approved within extended boundaries, and the list of satellites was still one short when the area was abandoned in May. The intention behind the construction of these aerodromes was that they should be used by long distance aircraft and by additional fighter squadrons reinforcing an existing fighter screen based on Rouvres and Vassincourt. Facilities in this area were throughout recognised as a longer-term requirement, however, and completion was not expected until December 1940. As four of the grounds were scheduled for probable construction with runways, the task was not a light one. The following is a list of the sites selected; it will be noted from the map that they were (by pressure of circumstances) concentrated in separate groups - near Toul, near Bar-le-Duc, near Verdun, and near Vouziers, and that the "Verdun-Nancy" or "Verdun-Metz" area is in consequence something of a misnomer.

New Aerodromes in the "Verdun - Metz" area.

Main Aerodrome	Pin Point G.S.G.S. 4042	Satellite	Pin Point GSGS 401
Saizerais	U. 7422	Rosières-en-Haye	U. 7122
Bernécourt	U. 6230	(not found)	
Maizeray	U. 5158	Ausecourt	U. 0035
Rammencourt	T. 9427	Rammencourt 'B'	T. 9329
Dricourt	T. 6993	Pauvres	T. 6595

/From

From work on all these sites, as with those of the B.E.F. Areas, we failed to reap any practical benefit.

A.H.B.
File
IIRP/128.

Improvements to Existing Grounds in the
A.A.S.F. Area.

Side by side with the construction of new grounds South and East of the A.A.S.F. area, went the development of existing grounds in that area itself. The most urgent need was for the provision of further accommodation on the existing main aerodromes, and the clearing and general preparation of all the allotted satellites. This was necessary because both reinforcing fighter and bomber squadrons which might be sent out from England before the South Champagne grounds were ready would entail working at least two squadrons per main aerodrome in the A.A.S.F. area, and a prepared satellite was therefore more desirable than ever. Considering that some of these satellites had been allotted in name by French before the war, and that in September 1939 it was implied that a few weeks' work would set them right, the slow progress made with these might seem surprising. At first, however, it was hoped that the French would make them suitable for operations, and this they were unable to do for lack of labour. The general reasons for delay which affected the British works service thus operated, and in addition were aggravated by the fact that many changes of site were made in the course of the autumn and winter months. This in turn arose from several factors, including the original allocation of one or more entirely unsuitable grounds by the French. It must be confessed, however, that there seems to have been a certain amount of muddle as to what was meant by a satellite. For on March 17th 1940 Air Commodore Dacre (Air Officer-in-charge Administration A.A.S.F.) wrote to B.A.F.F. Headquarters, stating that the satellites, when finished, would comprise "nothing more nor less than a landing area with a suitable road leading to it", and urging that satellites should have the same degree of facilities as main aerodromes. On April 10th Air Commodore F.P. Don (Air Officer in charge Administration, B.A.F.F.) duly wrote to the Engineer in Chief G.H.Q. stating that it had now been accepted that satellite aerodromes where suitable, were to be prepared for full operational use; and that two of the satellites were unsuitable for this development. The reply

ibid
(18a)

ibid
(21a)

ibid
(23a)

/of

of Brigadier G. S. King. (Deputy Chief Engineer, G. H. Q.) to this, however, affirmed that it had always been understood that satellites differed from main aerodromes in no particulars save the amount of accommodation; that engineering plans had always been made on this basis; and that any new sites chosen could not be ready until about June, 1941. It thus appears that from late November until April the A. A. S. F. (and B. A. F. F. Headquarters) imagined that the satellites in their area were to be relief landing grounds only, while the Engineering Service responsible for their construction was proceeding on the assumption that they would eventually have full operational facilities, though with accommodation on a smaller scale than main aerodromes. Since the A. A. S. F. advised on the selection of sites, the matter must have caused some confusion and delay, though it is not clear to exactly what degree.

The final degree of progress achieved is shown in the appended table. The number of satellites shown would be eight instead of ten, had not a recent decision diverted the two northernmost of the new aerodromes in the South Champagne area (Vatry and Germinon) into A. A. S. F. satellites.

Progress achieved by May 10th, 1940 in clearing
A. A. S. F. satellites,

Name of Satellite	Pin Point (GSGS. 4042)	Parent Aerodrome (Given in N. to S. order)	Pin Point (GSGS. 4042)	Condition of Satellite
76 (Ami - fontaine)	C. 2687			Fully operational and had been occupied since Nov. 1939 as a main aerodrome pending completion of Asfeld - Sault by the French - promised by April 1st, but not ready by May 10th.
W (Guigni-court ((Juvin-a court))	O. 2202	Berry-au-Bac	T. 2199	Rough. Obstruction to be marked.
(St. Etienne)	T. 3694	Reims-Champagne	T. 3285	Strips available. Approach road not complete.
75 (Warmeri-ville)	T. 4689	Betheniville	T. 5683	900x900 yards usable. Bad area to be marked.
W (Moscou-Prosnès)	T. 5071	Auberive	T. 5872	Small; good access and usable.
I (Sept Saulx)	T. 4668	Mourmelon	T. 5663	Two strips. Rough. Land with caution. Suitable for development as refuge only.

Name of Satellite	Pin Point (GSGS.4042)	Parent Aerodrome (Given in N. to S. order)	Pin Point (GSGS.4042)	Condition of Satellite
71 (Champigneul.)	T. 4049	Conde-Vraux	T. 4556	Landable with care. No access road.
Pocancy	T. 3746	Plivot (Epernay)	T. 3351	Part landable. Small and rough.
Germinon (Villes-neux)	T. 3735	Villeneuve	T. 3143	Rough, but usable with caution.
N (Vatry (Busay))	T. 4530	{ Ecury	T. 5233	Rough in places, but usable. Small. Usable as a refuge only
G (L'Epine)	T. 5947			

It is noteworthy that of these satellites, only three had been in the original list of September, 1939. By May, 1940 the two small refuges were officially ready for use, since they had been chosen with a view to existing grass: all the remaining grounds (except Amifontaine) depended in greater or less degree on fresh sowing in the spring, and therefore awaited the establishment of firm grass in mid-July. During the battle which began on May 10th, two of three of the grounds were used: Amifontaine, of course, continued to be used as a main aerodrome: St. Etienne was used as a dispersal point for communication aircraft of No. 24 Squadron from Reims-Champagne: and Germinon and Vatry were used as dispersal grounds by No. 71 Wing. On May 11th, in fact, the Wings received permission from A. A. S. F. Headquarters to disperse up to fifty per cent of their aircraft on satellites at their own discretion, but it does not appear that this was done, except in the case of two squadrons of No. 71 Wing. The success with which the new grounds in the South Champagne area were used from May 16th onwards however, probably indicates that the remaining satellites in the A. A. S. F. area could have been used in the preceding five days.

The Orleans - Le Mans Area.

A. H. B. File
IIH2/119(1)
passim

There remains to consider the new construction which was undertaken in the Le Mans-Orleans area, under direct Air Ministry responsibility. The original programme laid down in October 1939 was for five main and five satellite aerodromes in the Le Mans area, suitable for the operation of the latest bombers or fighters. The programme was subsequently expanded, however, into two distinct enterprises - a project of five main and five satellite aerodromes

/suitable

suitable for heavy bombers, and another project of five aerodromes for five Flying Training Schools, each with two relief landing grounds. The total number of sites thus required was twenty-five, and all were to be ready by December 1940. Naturally the acquisition of so many sites proved a difficulty, even when the originally allotted area was successively extended, and by the end of January, 1940, only eight of the fighter sites for the Flying Training School programme had been chosen. In February the search for the heavy bomber sites began, and one of the ten required was selected, and approved by the French. By the end of March eleven of the fifteen Flying Training School sites had been obtained from the French, but no further progress had been made in the heavy bomber requirements. This was largely because we desired an extension of area into the Beauce country, east of Vendome, which the French were unwilling to grant on account of the agricultural value of the soil. The position became so difficult that it was decided in the Air Ministry in early April to abandon the heavy bomber programme, and rely on using the Flying Training School sites for operational purposes in an emergency. Just at this time, however, the French agreed to construction in the debated area, with a request that the number of aerodromes would be reduced from ten to five. This was therefore agreed to, and the ultimate programme for the heavy bomber aerodromes thus became for five grounds only. There was now no hope of completing these in 1940, and the intention in May of that year was that they should be completed during 1941. Four sites had been provisionally chosen - Selommes, Le Mee, Liconcy and Binas - but no final decision had been taken, nor had any work been started on them, when the British forces withdrew from France.

Progress with the Flying Training sites, though slow, was distinctly better. Of the sites selected by May 1940, three (Parce, Oucques and Rille) had been abandoned as unsuitable, but of the total of fifteen required, eleven were actually being developed. They were as follows:-

/New

ibid.
(78a)
(83a)
(87a)

New Aerodromes for Flying Training Schools in Le Mans -
Orleans area

Main Aerodrome	Geographical Position	Relief Landing Ground	Geographical Position
Vendome	00° 47' E: 47° 46' N	{ Villethieu (Prunay)	00° 57' E: 47° 46' N.
		{ Houssay	00° 57' E: 47° 45' N.
Ignieres	01° 13' W: 47° 50' N	Herbouville	01° 17' E: 47° 54' N.
Souge	00° 45' E: 47° 46' N	{ Oelle	00° 45' E: 47° 49' N.
		{ Couture	00° 42' W: 47° 45' N.
(Parce abandoned	00° 12' W: 47° 51' N.	{ Chateau-Gontier	00° 40' W: 47° 50' N.
Luble	00° 46' E: 47° 42' N	Le Lude	00° 18' E: 47° 39' N.

Three of these grounds - Souge, Houssay and Herbouville - were actually occupied and used by the six remaining bomber squadrons during the period of the second retirement of the A.A.S.F. (June 2nd - June 14th). They were of course, not complete, but the latest had been selected by January 1940, and there had thus been sufficient time to ensure seeding them in the spring. Had these grounds not been available, it is difficult to see where the Battles could have operated from in comparative safety during this period, for the loss of much territory made the customary scarcity of French aerodromes more acute still, and the retention of anything more than advanced bases in the South Champagne area might have cost the eventual loss of the entire ground organisation.

(Commentary)

In reviewing the whole programme of aerodrome construction certain criticisms impress themselves forcibly. However urgent the demand for the construction of fifty-nine new aerodromes in France by December 1940, a decision taken to this end in October 1939, when no adequate works organisation at all was available, must wear something of the aspect of an act of faith. The critical point was, in fact, the works organisation, which did not become adequate until March and April 1940. This automatically meant that the programme for the B.E.F. forward area could not be completed in time. The manifold nature of the various other delays, and the great difficulties inherent in this work in an allied country, are also impressive, but an equally impressive thing is the extreme rapidity of progress made in the Spring of 1940, when once the works organisation had been built up. Up to March 1940, very little progress had been made at all, but such advances occurred

/between

between early March and mid-May, that by this later date some of the hard runway aerodromes of the B.E.F. forward area were almost ready, while several of the grass aerodromes of the South-Champagne and Orleans-Le Mans area could actually be utilised with success, a month or two before they were scheduled for completion. Thus although the story of British aerodrome construction in France is by no means one of unqualified success, it is not a tale of unrelieved disaster: and certainly it offered many useful lessons for the future.

VII DEVELOPMENT IN THE ORGANISATION OF DEFENCE AGAINST ENEMY AIR ATTACKS.

Air defence organisation was a problem that was never put on a very satisfactory basis in France, nor in the nature of the circumstances was it possible to achieve any great degree of progress in a short space of time. The subject bristled with difficulties, most of which related to the necessity for close co-ordination with the French, the backward state of the French defensive system, and the difficulty of sparing essential equipment and personnel from Great Britain. It is hardly worth while to follow in detail the complicated evolutions of the subject from September 1939 to May 1940, but it will be appropriate to indicate the outline of the organisation which had been developed by the latter date. For this purpose something must be said in turn of the main ingredients of the defensive system - the means of reporting air raids, the fighters, the anti-aircraft artillery, the searchlights and the balloons. The essence of the situation, however, was that in none of these ingredients could the allies call on sufficiently great resources to provide an effective organisation.

Air Raid Reporting: (A) The French Observer System.

A.H.B. files
II H 2 229
and 232
passim

The basis of the French air raid reporting system was a series of observer posts, which reported by telephone to various centres. As compared with the British Observer service, the French system suffered from two great defects - its sparsity, and its means of communication. The posts were concentrated in a very great measure along the frontiers and coasts, and although they were also disposed internally, along inter secting lines, and in concentric circles round Paris, the distances between the interior lines of posts parallel to those of the frontier averaged some fifty miles. Continuous tracking of an aircraft was thus rendered very difficult. Moreover, since these posts relied on the normal telephone service, and had for the most part no direct lines to their Report Centre, reports took a matter of several minutes to come in. The general poverty of telephone communications in France was an inherent defect in this as in many other French services.

In addition to this general system of territorial air defence, there was a separate series of army observer posts organised for the defence of individual French armies, and these reported by W/T

to the fighter group actually allotted to the army concerned. The effectiveness of this system apparently varied very greatly from army to army: in April, 1940, for example, the Second Army was considered to be very well provided in this respect, but the Ninth Army, though it had a roughly similar plan of organisation, was much worse off, for it had fewer observer posts, fewer transmitting sets, and so few petrol charging groups that the state of its accumulators did not enable watch to be kept continuously. It may be remarked in passing that even had the Ninth Army possessed the means of adequate air raid reporting, it would have been able to take little advantage of it, since its equipment of anti-aircraft guns was insignificant. At the end of April, 1940, the various army systems were still quite unco-ordinated, either with each other, or with the general system of French air defence: thus the fighters stationed in the zone of the Ninth Army, for instance, whether those of the general system or the groups allotted to the Ninth Army had no means of receiving the reports of the army observer posts of the First and Second Armies on either flank. At this date a scheme was promulgated to ensure better co-ordination among the armies, and between them and the general system. There is no record in the Air Historical Branch files of whether this scheme was in fact carried out before the German attack, but since it depended on the provision of further equipment within seven weeks the reasonable assumption is that no such re-organisation occurred.

Air Raid Reporting: (b) The British Wireless Intelligence Screens.

The French system of observer posts had not only to be co-ordinated in itself, but had also to be related effectively to two further means of raid reporting. The first of these was a series of British observer posts, which, since reports were sent back by W/T, was known as the Wireless Intelligence Screen. Twenty five of these posts were originally sent out to France, the main apparatus for each consisting of transmitting and receiving sets (T.1083 R.1082), a petrol - electric generator, and a visual plotter (Mark IV). Later the number of posts were slightly increased, those in the North of France being made fully mobile by means of a Ford 16 cwt. tender and trailer. The normal establishment for each post was two R.A.F. Wireless Operators and four Army observers, together with a driver where the set was mobile. Most of the original Wireless Intelligence posts

/were

A. H. B.
File
I1H2/197
passim

were set up near the Franco German frontier, only four being used by the Air Component. By December 1939, however, the number of posts had taken its final form, and their dispositions were such as they were to occupy with little variation until April. The arrangement during this period was that the posts were so disposed as to cover three distinct lines of approach. Forward of the A.A.S.F. area, near the Eastern Frontier, was what came to be called the Wireless Intelligence Screen (South). This consisted of a forward line of nine posts from the South West corner of Luxembourg to a point about twenty five miles north-west of Nancy, three of these posts being ahead of the Maginot line; a second line of seven posts, fifteen miles or so behind the forward line; a control post at Metz, between the two lines; and a receiving station in the operations room of No. 67 Fighter Wing. In an entirely different area, that of the Air Component, was what came to be called the Wireless Intelligence Screen (North). This was from December 1939 until April 1940 sub-divided into two screens, each covering a different line of approach, with a control post between them at St. Pol. The first consisted of a Western Coastal screen of seven posts, stretching from a little West of Calais to a little North of the Somme mouth; the second of a North-Eastern screen of five posts, ranged irregularly between Armentieres and Douai. During April, 1940 however, five of the screen coastal posts were moved forward, leaving two coastal posts only, attached to A.A. Regiments in the Calais-Gris Nez area; while the North Eastern screen was correspondingly reinforced by these five posts, and the whole distributed in the neighbourhood of the Franco-Belgian frontier and its immediate hinter land between Halluin and Valenciennes. The screen in this area reported direct to No. 14 Fighter Group, Air Component.

The idea was also mooted of a series of 'front-line' observer posts on the B.E.F. front, reporting by wireless to mobile R/T stations, where R.A.F. controllers would collate reports and issue orders to reconnaissance or fighter aircraft on patrol. This was debated from December to May but did not reach the sphere of practical action.

Responsibility for the Wireless Intelligence service as a whole was a very divided matter. Originally the Fighter Wing of Air Component (No. 60) was responsible; but when many of the posts were sent down to the Eastern frontier, the arrangement that obtained was that technical responsibility remained with No. 60 Wing, while operational and administrative responsibility for these posts was exercised by the A.A.S.F. In the

/reorganisation

A.H.B. file
H2/228
passim

A. H. B. file
IIR2/178
(33a)

reorganisation effected in January, 1940, a Group Organisation (No. 14) was given to the Air Component Fighters, and a new body was formed, known as No. 5 Signals Wing, which was intended to develop and co-ordinate the systems of receiving air information. This therefore took over the technical responsibility for the Wireless Intelligence Screen; but the inconvenience of this divided authority was such that from March 25th onwards the Southern posts were placed technically as well as administratively and operationally under the A.A.S.F. (who exercised direct control), and the Northern posts were similarly placed under Air Component (who exercised control through No. 14 Group). A revised scheme of administration of the Army observers was also put into effect.

The Wireless Intelligence screens as organised and equipped seem to have had certain definite advantages and shortcomings. Where the posts were mobile, they could be set up and operated within half an hour, or dismantled and withdrawn within ten minutes. Reports were also transmitted with considerable speed, those from the posts on the Eastern frontier usually appearing on the operations table of 67 Wing within a matter of twenty seconds. On the other hand the observer side was weak both in respect of its personnel, who had had no great experience or training in aircraft recognition, and its equipment, which was limited to a pair of 6 Mag. field glasses and a plotter. Thus there was no apparatus for gauging height; the screen worked only during the day; and very many of the plots were passed as unidentified aircraft. The joint Army - R.A.F. personnel, together with the facts that the posts were usually in very isolated districts and that part of the screen was located with the A.A.S.F. and part with the Air Component, also led to considerable administrative difficulties.

Air Raid Reporting: (c) R.D.F. ²⁵

As a supplement to the work of the French observer system and the Wireless Intelligence Screens there was a third method of air raid detection in the form of an embryonic R.D.F. chain. The French had been admitted to the R.D.F. secret before the war, and during June 1939 six French officers had passed through a course at Bawdsey. Impressed with the possibilities of R.D.F., the French contemplated a widespread adoption of the system in their country by all three services. No particular limit had been set to their requirements by May 1940, but these already envisaged sets for anti-aircraft batteries and for naval work, besides a main chain of

A. H. B.
files
IIR2/177
178
189
190
and
A. M. file
S. 2538

forty stations. Naturally a large programme like this was attendant on British manufacturing capacity and our own needs, and was in consequence not to be achieved in a few months. For our own part we had already planned before the war for at least one mobile set to be sent with the Field Force; but soon after the outbreak of war we decided to organise a 'preliminary' chain as an interim measure pending the realisation of the French Grand Plan. For this purpose some G.L. 2 (gun-laying) sets were released by the Army and modified to form mobile sets for erection in France, and were progressively installed. It was intended that this preliminary chain should embrace some twelve or fifteen stations, stretching from the North coast of France down to the Swiss frontier, and that the sites should, as far as possible, coincide with those of the permanent stations that were to succeed them. Current with this development we undertook to supply sets for a French school of R.D.F. training at Montpellier, and to train French operators on the British sets.

The responsibility for these new developments mainly fell, on the British side, to Air Marshal Sir Philip Joubert, Mr. Watson-Watt, and Wing-Commander Rodney, while the French Air Ministry was represented by General Jullien, Inspector-General of Communications. In January, 1940, when No. 5 Signals Wing was formed, Wing-Commander Rodney was appointed as Commanding Officer, with the primary function of developing the preliminary R.D.F. in France and co-ordinating it with other means of receiving air information. The actual erection of stations in the preliminary chain, however, hung fire after a good beginning. Three had been made available very quickly, by October and by the end of January this had risen to six, of which five were erected. Of the five sets erected by January, No. 1 Set at Calais was of an unimproved mobile type - the M.B.1 - and the remainder were of the G.M. pattern. The original siting comprised four in the North and one for the A.A.S.F. at Bar-le-Duc, but an isolated set proved to be of little use, and during March this was withdrawn, to be later transferred to the Northern coast. About the same time the sixth set was erected and the locations now ran - Le Treport (G.M.), Deevres (12 miles inland from Boulogne: G.M.), Calais (M.B.1), Macobeques (West of Lille: G.M.), Arras and Le Cateau. This disposition was designed to give cover over the Northern coast and the Northern end of the Franco-Belgian frontier; it was then intended to extend the chain progressively south-eastwards behind

the frontiers, and by mid-April, preliminary work had been completed on sites at Le Capelle, Mézières, Sedan and Vouziers. This, however, was the extent of progress made by the time of the German attack, and the 'preliminary chain' remained confined to six stations in the North. Nor had we been able to meet French requirements in G.L. Sets for their anti-aircraft batteries: indeed only thirteen of these sets were available for our own batteries in France by the end of March.

Air Raid Reporting: (d) Filter Centres.

Side by side with the extension of the R.D.F. chain was supposed to go the development of centres for filtering reports from R.D.F. Stations, from Wireless Intelligence posts, from French 'centres de renseignements' and from the organisations, such as the D/F Identification Service and the Aircraft Movement Liaison Unit, which retailed the moves of friendly aircraft. In the North the temporary filter centre at Allonville was supposed to give way to a permanent and enlarged centre at Arras, while for the southern area a new filter centre was planned at Reims. The construction of the Reims centre was held up by frost, and lagged behind schedule, so that it was still incomplete on May 10th; as the promised supply of R.D.F. sets from Great Britain had ceased after the first six, however, the effect of the delay at Reims was not material, for there was no Southern end of the R.D.F. chain to be served. No. 1 Centre at Arras, however, opened on April 21st, and was thus in operation during the Campaign which followed. Nevertheless, it does not appear that it fulfilled all the functions for which it had been originally designed. To clarify this point it will be necessary to refer to the arrangements which had been made for reporting the movements of friendly aircraft and for transmitting reports of enemy aircraft plotted by stations in Great Britain.

A.H.B. File
II H2/675
passim

Before the war, an Air Raid Reporting Liaison Service had been formed under Fighter Command, with the intention of ensuring that British information of hostile raids which might affect France could be passed to French authorities, and vice-versa. For this purpose special sections of the Service had been set up at Stanmore and in the three Centres de Renseignements of Northern France-Rouen, Lille and Dunkirk, all of which had special circuits linking them with Stanmore. During the early days of the war this service was used for many other purposes than those for which it was originally intended.

In particular it had become embarrassed by the additional necessity of reporting the movements of friendly aircraft, for it was obviously essential to give warning of these if the detection and defensive system on either side of the Channel was not to be at sixes at sevens. In consequence, at the close of 1939 a new sub-formation of the service was formed at Versailles with the title of the Aircraft Movement Liaison Unit, and with the specific function of passing between the French, the R.A.F. in France, and the R.A.F. at home the movements of friendly aircraft affecting two of the parties. Even with this subtraction from their duties however, the Air Raid Reporting Liaison Sections continued to perform a multiple role. At Dunkirk, for example, the Amiral du Nord had air resources under his own control, which needed to be co-ordinated with those of Fighter Command. A British Air Liaison Officer had therefore been appointed to the Staff of the Amiral du Nord, and this officer maintained operational liaison through the medium of the Dunkirk Air Raid Reporting Liaison Section, which moved from the Centre de Renseignements to the Admiral's headquarters. Equally at Lille, a special section was maintained ready to advance into Belgium and report aircraft movements in the event of the invasion of the Low Countries. The Rouen section also played an important role in passing information of aircraft movements to the guns at Le Havre: while other functions such as the passage of weather reports to anti-aircraft batteries tended to develop.

One of the consequences of this development in the functions of the Air Raid Reporting Liaison Service was an increased delay in fully establishing the new filter centre at Arras. This had naturally been intended to receive reports direct from the French information centres in the North and from Stanmore, as well as from our own R.D.F. and Wireless Intelligence Screen; and it had therefore been envisaged that the three Air Raid Reporting Liaison sections would be disbanded on the institution of the new centre. The French, however, had become so accustomed to working with the Reporting Sections, and these, as the preceding paragraph has shown, fulfilled so many functions besides those of reporting hostile raids from one country to the other, that they could not be disbanded in toto. In

/consequence

II H2/675
(41a)

consequence it was agreed, on April 3rd that only the originally intended function of the Sections, - that of passing raid warnings from one country to the other - should be taken over; and that even this should not be transferred to the Arras centre until the latter had had time to prove its operational value. This decision, by retaining cross-channel lines (of which there were naturally never enough) for the Sections, further aggravated the problem of giving the new filter centre all its necessary communications.

Air Raid Reporting: (e) Progress Achieved.

The exact degree of progress achieved by No.5 Signals Wing in equipping the Arras filter centre with all its intended communications is, in the absence of so many records, by no means clear. What does seem clear, however, is that the whole system of detecting and reporting movements of hostile aircraft was in such a state of transition that it was hardly possible for a high degree of effectiveness to be obtained by the time of the German attack. This will appear the more so when it is remembered that four of the six R.D.F. stations in Northern France were intended to detect aircraft approaching over land. On May 10th Air Marshal Barratt wrote to the Air Ministry viewing with concern "the poor results being given by the stations already erected, and the slow progress being made in extending the chain beyond its present very limited area." He instanced a recent occasion on which "a German aircraft flew in from the coast at 20,000 ft. passed right over the R.D.F. area as far as Arras and Lille, but was not plotted from any of the Stations in the area although at the same time plots were being received from Stanmore". These limitations were to be confirmed all too soon in the active campaign.

Fighter Defence

The strength and disposition of the British fighter forces in France, and the efforts of the French to ensure a larger transference of our fighters to their territory, have already been examined. * It will suffice here to recall that two Squadrons were with the A.A.S.F., and four with the Air Component, and that arrangements existed by which these six squadrons could be increased to ten in the event of a German invasion of the Low Countries. The six squadrons were, in fact, in the first six days of the German attack, increased not to ten, but to the equivalent of sixteen squadrons, # of which three were with the A.A.S.F. and the remainder with the Air Component. It is

/necessary

necessary, however, also to indicate briefly what was the strength and disposition of French fighter forces, if an estimate of the power of the Allies to organise an effective air defence against the Luftwaffe is to be attempted.

The location of the French fighter forces on May 4th may be studied in full in Appendix E. It will be seen that each of the eight armies into which the military forces in France were divided had a fighter groupe (mostly of twenty aircraft) allotted to it, and that these fighters were in consequence ranged from the area of the VIIth Army in the North, through the areas of the 1st, IXth, IInd, IIIRD, IVth and Vth Armies down to the area of the VIIIth Army at the beginning of the Swiss frontier. These combined army allotments amounted to 166 fighters. The main fighter forces, however, were not tied to any specific army, but were distributed throughout the Zone Nord (i.e. coinciding with the area of the four Northern armies - VII, I, IX and II - though to a greater depth in the rear) and the Zone Est (i.e. similarly coinciding with the area of armies III, IV and V). In the Zone Nord, apart from the forces allotted to the four armies, there were six and a half fighter groupes - a total of 135 aircraft - located at Chantilly, Buc (near Paris), Rouen-Boos, Le Havre and Wez-Thulisy. If a triangle were drawn connecting the points of Le Havre, Paris and the S.W. corner of Luxembourg, these groupes of the Zone Nord would be found in the enclosed area, being thus generally situated south and rearward both of the French fighter groupes allotted to the four Northern armies and of the British fighters of the Air Component. In the Zone Est, apart from forces allotted to the armies, there were four fighter groupes - a total in this case of 92 aircraft - located at Vitry-le-Francois, Velaine-en-Haye, Auzainvilliers and Anglure, and consequently again rather to the rear of the fighter groupes allotted to the IIIRD, IVth and Vth armies. All fighters in the Zone Est might reinforce those of the Zone Nord (or vice-versa) in emergency, save those which were allotted to specific armies. Apart from these main zones, however, there were other areas: the Zone Sud, along the Swiss frontier, containing apart from the VIIIth army groupe, one fighter groupe of 26 aircraft at Chissey; the "Alpine Zone", covering the Italian frontier and the Mediterranean, and containing three fighter groupes, totalling 60 aircraft, at Lyon, Cannes, and Marignane;

/the

the special 'groupements mixtes', consisting of night and day fighters for the defence of Paris (36 aircraft) and Lyon (9 aircraft); and the naval co-operation fighters (20 aircraft) of the Amiral du Nord, stationed at Calais-Marck. The French fighter forces thus in all comprised some 544 fighters, of which four-fifths were concentrated in the North and North-East of the country. If the 160 British fighters (at the official reinforcement plan figure of ten squadrons) are added, it will be seen that the Allies had just over 700 fighters at their disposal.

The figure of 700 allied fighters appears at first sight to be a not unimpressive one. It must be remembered, however, that with this total many jobs had to be done, including naval co-operation, the night fighter defence of Paris and Lyon, the defence of the armies, the defence of the interior, and the provision of escorts to bombers and reconnaissance aircraft. Reserves of first-class aircraft were few: the length of coast and frontier over which the German bombers might approach amounted to at least five hundred miles, assuming respect for the neutrality of Switzerland; and there was always the possibility that some lightning blow might be struck from Italy. When to all this is added the fact that the raid reporting and warning system, as indicated above, was inefficient; and that the Germans, being the attacking party, could concentrate their bombers and fighter escorts at their selected points in overwhelming numbers, the difficulty of the French problem becomes clearly apparent. The Germans for their part, could bring to bear the great majority of their estimated force of 2000 long-range bombers, 500 bomber-reconnaissance, 500 dive bombers, and 1500 fighters - numbers which speak for themselves. An impression may have spread, however, as a consequence of the Battle of Britain, that a few hundred really determined fighter pilots with good aircraft can defeat, through their skill and resolution, the sustained attacks of enemy bomber and fighter forces several times as large. Lest this impression should be mistakenly applied to the possibilities of defence in France, it must be pointed out that the conditions were so different that no comparison can obtain. There were many factors which later placed defending aircraft in Great Britain at an enormous advantage over those which had had the same task in France, but it will suffice to mention three of the most important. First, in the Battle of Britain our R.D.F., since the enemy's approach had to be over water, usually gave sufficient warning for patrols to be put up against the intended threat. Secondly, the German bombers, if they were to enjoy fighter escort, were limited, as a general rule, to an approach over a stretch of British coast not more than two hundred and

fifty miles in extent. Finally the pilots who from July to October 1940 defeated the Luftwaffe over Great Britain had not at the same time to suffer the might of the German Army, and the administrative paralysis which follows sudden military disaster.

Anti-Aircraft Guns.

The comparative allied weakness in fighter resources would not, of course, have been so serious had the position in regard to anti-aircraft guns been much better. To understand the potentialities for defence in this respect in France, it is necessary to know what the French possessed, and what obligations the British undertook. Unfortunately what the French possessed was very little: there are no statistics deposited with the Air Historical Branch which would enable an accurate statement to be made, but a few indications may be given from unofficial (and controversial) sources for what they are worth. At the Riom trial it was stated that at the beginning of the war French defence against aircraft at medium height was not good, while defence against low-flying aircraft was non-existent. The figure for anti-aircraft guns possessed on August 3rd, 1939 was 369 (the context is not clear, but these would presumably be heavies of 75 mm. and 105 mm). Two new types of gun, the heavy 90 mm. and the light 25 mm. were scheduled for production before the war; the 90 mm. gun apparently suffered so many delays in production that it did not reach the armies at all, while of the 25 mm. gun some 2500 had, according to M. Daladier, been produced by May 10th, 1940. In addition to this there were, according to the same source, 1200 # other guns of small calibre, making 3700 light anti-aircraft guns in all. Other witnesses at the Riom trial spoke of the shortage of trained anti-aircraft gunners and of tracer ammunition, and the poor quality of the anti-aircraft machine-guns. Unreliable as these statements may be, they nevertheless give a clear indication that the army divisions and the forty or more "Zones importantes defendues" of the interior can have been none too generously endowed. General Corap, for instance, in charge of the Ninth Army, had estimated his requirements in the new 25 mm. guns at 45 batteries: he apparently actually received 3 batteries, which, in addition to 3 "groupes" of 73 mm. guns (75 mm?) constituted his entire equipment in anti-aircraft artillery. The Ninth Army was admittedly worse off than many others, but even so the figures are instructive.

Lt. Col.
Tissier:
"The Riom
Trial" pages
67 and 68

P. Allard
La Verité sur
l'Affaire
Corap.
P. 23.

These were probably 1200 Lewis guns from the last war issued with anti-aircraft equipment. See D. of Plans Form 540, Appendix 37, (2nd paper - page 5)

The extreme weakness of the French in the anti-aircraft arm naturally made them the more insistent on as large a British contribution as possible. This has already been shewn for the pre-war period, when eventually during the Anglo-French conversations a 'long-term' project (for 1940) had been presented to the French, by which the British would undertake full responsibility for the anti-aircraft defence of their own forces in France. The actual promise made by the British was that they would release further guns to achieve this purpose (at an unspecified date) if the situation in Great Britain warranted. Here, however, arose the difficulty that we ourselves were far behind in our estimated requirements of guns for home defence: for in September 1939 we possessed for the Air Defence of Great Britain less than 800 heavy guns (i.e. down to 3" out of an authorised total of 2,232, and only 279 light guns, in addition to some 3,000 Lewis or Bren anti-aircraft machine guns. The German figures for these totals, it may be remarked in passing were estimated at nearly 5,000 heavies, 3,000 Bofors, and 5,400 .77"s.

By the arrangements made before the war, the French had supplied some anti-aircraft defence for the British disembarkation and for the area of the British aerodromes. It was visualised that the French mobile guns would be withdrawn from the ports when the period of disembarkation was completed, and equally that aerodromes of the Air Component would come under the general anti-aircraft defence of the B.E.F. within a short time. The anti-aircraft defence of the A.A.S.F. aerodromes by the French was, however, a more permanent commitment, and was intended to last until such time as the British felt they could release guns from home defence - for which the date 1940 had been suggested. General Gamelin, however, lost little time in pressing for the British relief. At the Second Meeting of the Supreme War Council on September 32nd he requested that additional British guns might be sent over to relieve French anti-aircraft artillery in the Nantes, Lille-Lens, and Reims (A.A.S.F.) areas. The British reply was that we could not despatch additional guns immediately, though we proposed to send general reinforcements of three heavy A.A. regiments (each of 24 guns) by the end of the year. Concerning General Gamelin's specific requests we announced a willingness to release the twenty four mobile 15 mm.

/guns

C. O. S. (39) 67

D. of Plans

Form 540

Appendix:

War Serial

32

D. of Plans

Form 540

Appendix

War Serial 32

(C. O. S. (39)

45)

guns at Nantes: a request to G.H.C. to see if the forward A.A. protection of the B.E.F., when in position, would justify the withdrawal of the twenty four mobile 75 mm. guns from the Lille-Lens area: and our inability to relieve the thirty six mobile 75 mm. guns in the Reims area. This last refusal was the more natural since, although we had always accepted the direct defence of the A.A.S.F. aerodromes as an ultimate commitment, we had not understood that in the interim they were to enjoy anything more in the way of anti-aircraft artillery than "the indirect cover afforded by the general A.A. defence of the area". Nevertheless, it was soon succeeded by a note in far more favourable terms, for a Chiefs of Staff memorandum on October 9th announced that a further 6 batteries of 3" guns (i.e. 48 guns) were to be withdrawn from Air Defence of Great Britain, and that a large proportion of these would be sent to the Reims area for the defence of the A.A.S.F.

A.F.C.(J)
77
para 11b.

A.H.B. file
II H2/143
(8B)

In accordance with this revised decision to undertake the direct defence of the A.A.S.F. aerodrome area immediately, the 12th A.A. Brigade - comprising the 53rd Heavy A.A. Regiment (3 batteries each of 8 3" semi-mobile guns) and the 73rd Heavy A.A. Regiment (2 batteries each of 8 3" semi-mobile guns) - arrived with the A.A.S.F. by October 23rd. This afforded relief to the French: but it by no means satisfied the desire of the A.A.S.F. for adequate protection. The aerodromes in the Reims area were widely dispersed; satellites and new aerodromes were being developed which would make further commitments; and in addition there were railheads, parks, and dumps to defend. Moreover, there were insufficient height-finders and predictors with the 5 batteries to permit anything smaller than 4-gun groups: and the 3" gun itself was effective only against aircraft at medium height. In December 1939 Brigadier Crewdson, Commander of the 12th A.A. Brigade, therefore stated his requirements for meeting the real needs of the area; and these, in his opinion, would have been met by the substitution of 40 3.7" guns for the 40 existing 3" guns, the addition of six batteries (at 12 guns each) of Bofors 40 mm. guns for defence against low-flying attack, and the provision of additional fire-control stores. Though this estimate was strenuously pressed by Air Vice-Marshal Playfair, by Air Marshal Barratt and by Lord Gort no very substantial progress was made towards the goal indicated, for apart from production difficulties and the needs of Air Defence of Great Britain

A.H.B.
file
II H2/140
(15J)

ibid
passim

and the B.E.F., the Scandinavian projects caused delay and diversion. In the event, by the time of the German attack the A.A.S.F. had received, in addition to the above-mentioned five batteries of 3" guns, the following reinforcements in anti-aircraft artillery: - one battery of 8 3.7" guns of the 2nd Heavy A.A. Regiment, detached from the B.E.F. (mid-February, 1940); and one battery of 12 Bofors 40 mm. guns of the 55th Light A.A. Regiment - three weeks later withdrawn for Norway and replaced by a similar battery of the 54th Light A.A. Regiment (20th April). The total resources for defending the twelve A.A.S.F. aerodromes, the railheads, the parks and the numerous small units thus amounted to 8 3.7" guns, 40 3" guns, and 12 40 mm. Bofors guns, apart from light automatics. The most serious deficiency was obviously in the Bofors class, though the lack of 3.7"s also made it very difficult to stop German aircraft reconnoitring the A.A.S.F. aerodromes at will.

The Air Component aerodromes had the benefit of the general A.A. defence of the B.E.F. area, as well as particular formations detailed by G.H.Q. for ~~their direct~~ protection. The total resources in British anti-aircraft artillery in France, apart from that in the A.A.S.F. area, in May 1940 amounted to something in the region of 224 heavy guns and 224 light guns. Of these 32 heavy guns (three batteries of the 60th and one of the 73rd Heavy A.A. Regiments) and 36 light-guns (3 batteries of the 51st Light A.A. Regiment) were directly disposed for the protection of the main Air Component aerodromes - Vitry-en-Artois, Lille-Seclin, Abbeville, Poix, Rosières, Amiens-Glisay, Peronne and Mons-en-Chaussée. Some further guns protected the advanced landing grounds at Dunai, while the small aerodrome at Arras would benefit from the special protection given to that district. Of the remaining guns with the B.E.F. about 56 heavy and 54 light guns were detailed for protection of lines of communication, and about 108 light guns were for Corps use. It will be seen that, as compared with the A.A.S.F., the Air Component had better indirect protection, rather less direct protection with heavy guns, and distinctly more direct protection with light guns. Nevertheless the general scale was far from adequate, though it was far superior to that of the French formations, and was doubtless the best that could be done in the circumstances of the time.

In addition to the army anti-aircraft artillery, the British aerodromes in France

also enjoyed such protection as was to be afforded by R.A.F. personnel manning machine-guns. The general scale of issue of these was eight per aerodrome in the Air Component, and sixteen per aerodrome with the A.A.S.F. It turned out that some very useful work was to be put in by the R.A.F. ground gunners against low-flying aircraft, but the equipment which was issued was by no means as uniform or as modern as could be desired. The A.A.S.F. Ground Defence Officer at the end of March, in urging the provision of modern weapons such as the G.O. Vickers, stated that the existing equipment included "every conceivable kind of mounting, yoke and tripods": that "the sights provided ranged from the Lewis 100 m.p.h. ring sight to various types of front-gun sights as used in the last war": and that 70% of the Lewis guns supplied were of the air pattern, depending for their adequate cooling on being in a slipstream. It was to strengthen the position in regard to this class of weapon that G.H.Q. detailed a battery of the 3rd Searchlight Regiment to proceed to the A.A.S.F. area, in order that its 24 Bren guns might be employed there. These arrived on April 15th. On April 1st the Air Ministry promised the provision of some Hispano-Suiza 20 mm. guns, but these had not arrived by the time of the German attack: in any case their prospect constituted a complication rather than an immediate relief, for the establishment in ground gunners was not to be increased - which meant adapting existing Lewis guns to multiple mountings, and training existing ground gunners in the handling of the new gun.

The lack of good modern anti-aircraft machine gun equipment might have had serious consequences not only in the matter of aerodrome defence, but in the failure to supply adequate protection for travelling convoys. Scarff rings for mounting Lewis guns through the cab-roofs of the 3-ton Crossleys were often non-existent, and had to be replaced by improvised mountings in the lorry bodies. A quotation from the A.A.S.F. Report will sum up this point.

"... our mechanical transport was very much worse equipped than that of the enemy, which appeared to have a highly organised system of light A.A. defence to accompany each convoy. So poorly were the vehicles of Headquarters (Unit) A.A.S.F. armed, that orders for action in the event of air attack stated that convoys should halt and fire be brought to bear from Lewis guns removed from lorries and mounted on tripods by the roadside. Fortunately, however, low-flying attacks were not carried out on any A.A.S.F. convoys".

Searchlights

It is not clear to what extent the French
/were

ibid
(16B)

ibid
(12a)

Report on
A.A.S.F.

Part I
Page 37

were liberally equipped with searchlights for aid in night defence; but there would seem to be little a priori reason for assuming that they were better off in this respect than in so many others. Before the war, indeed, they had pinned some hopes on the development of a method of air defence by night which deliberately dispensed with illumination - a system which was known as 'la chasse obscure'. This depended on the fact that by night an aircraft is often visible at considerable heights from another aircraft directly below it. A means was therefore evolved by which, when an aircraft was detected crossing a sensitized line, its movements could be reported to fighters, which in turn could be directed to a position beneath the approaching enemy. The method, however, seems to have achieved no more than an academic success, for up to June 1939 it had not been possible to intercept aircraft flying at a greater speed than 135 miles per hour.

A.H.B.
file
II H2/138
passim

ibid
(84a)

The British, on the other hand, were anxious to create an illuminated zone for the operation of night fighters in France. The policy for the employment of searchlights urged by the C.-in-C, B.E.F., was the creation of such a zone in the B.E.F. forward area; and the original intention of G.H.Q. was to use all searchlight resources, as they became available, for this purpose. By the end of March, however, it had become apparent that this project could not be realised. An aircraft fighting zone effective for the protection of British Corps areas and Lines of Communication would have required about eight searchlight regiments deployed on an axis Lille-Beauvais, and covering not only the B.E.F., but also much of the areas of the French IXth, Ist and VIIth Armies. This zone, however, would have included a large number of the French "zones defendues", where the fixed French guns reserved the right to open fire on any aircraft approaching at night or over cloud. To secure a reversal of French policy in these zones, it would have been necessary to guarantee the defence of these important industrial areas by our own fighters; but this we were quite unable to do, both because the French zones were too near the Belgian frontier and the edges of the proposed Fighting Zone to enjoy full protection, and because we were in any case unable to supply fighters on the necessary scale. This indeed, proved to be the crux of the matter: for the existing four British fighter squadrons with the Air Component, even if increased to six by the reinforcement plans, were already likely to be crushingly overburdened by the needs of protective and escort work by day alone. To add night duties in addition would have been to dilute their daytime strength beyond all reason; and since we were unwilling to send further fighter squadrons to France, the proposal for an illuminated aircraft fighting zone had thus to

ibid:
(85a)

be abandoned. In its place the C.-in-C. fell back on the use of his searchlights to create illuminated gun zones for the common benefit of the B.E.F. and of French interests in or near the B.E.F. areas. Deployment for the first stage in this new programme - 144 lights at intervals of 3,500 yards - was carried out during April by the 5th Searchlight Brigade. The area covered centred round Lille, and extended along the frontier roughly from the neighbourhood of Armentières to that of Aix, and in depth to Lens. It was the intention, in early May, to occupy a further stage (99 lights), including the city of Douai. The general area was to be southward of the first stage and extended in advance of Arras to behind Denain. The German attack came before sufficient resources had arrived to create the proposed stages to rearward of these forward areas. Apart from this general plan, small numbers of lights were also used for a trial "dazzle defence" of certain Air Component aerodromes, and for anti-minelaying and dazzle defence to seaward at Dunkirk, Gris Nez and Boulogne.

Balloon Barrages.

A.H.B.
file
II H2/142
passim

It remains to mention the deployment of British balloon defences in France. It was decided, on the request of the War Office, to establish balloon barrages from British resources for the defence of Le Havre and Boulogne. The intention was that No. 912 Squadron should cover Boulogne and No. 924 Squadron Le Havre, each squadron having as initial equipment of 24 balloons. The two squadrons were to be administered by a wing headquarters known as No. 1 Balloon Barrage Wing, which was eventually fixed at Amiens. For higher administration and operations the Wing was under the orders of the Air Component; but the disposition of the sites was determined in collaboration with the French Naval authorities who were responsible for the air defence of the two ports. The two squadrons arrived in France during February, 1940, but it was impossible to have their balloons flying by the scheduled date of March 1st, for numerous difficulties supervened. Many of these were caused by inefficient organisation in regard to equipment, for the squadron equipment officers for some time were informed neither of the scale of issue, nor of details of stores actually despatched. The position in this respect, according to the Balloon Wing Commanding Officer in April, had been "one of complete chaos". Various other small defects in total amounted to something considerable; for example, the arrival of hut-sections ready glazed, with over 50% of the windows broken.

ibid
(29a)

and with the belts for the assembly of the sections. Co-operation with the army engineering authorities had been insufficiently arranged in advance, and this was the more important since the majority of sites, owing to sand, required concrete blocks and central anchorages. At both ports squadron personnel eventually carried out much of the work of accumulating shingle and mixing concrete. By the end of March, however, No. 924 Squadron at Le Havre had inflated and deployed nineteen of its twenty-four balloons; while No. 912 Squadron at Boulogne had sites virtually ready for the deployment of a barrage of sixteen balloons. The barrages at these ports remained our only contribution in this aspect of air defence. The C.-in-C., B.E.F. was however anxious to have, in addition, two mobile balloon squadrons held in G.H.Q. reserve for special tasks as occasion demanded and in particular for defence of special points in forward areas. The French Army actually possessed such mobile formations: but while B.A.F.F. Headquarters agreed that two G.H.Q. reserve squadrons might be very useful for many tasks, it gave definite discouragement to the idea that they could usefully be employed in forward areas. On March 4th the C.-in-C. requested the War Office for the allotment of two mobile squadrons for G.H.Q. reserve: but it does not appear that this addition was in fact made to our balloon resources in France.

Miscellaneous.

Apart from these main ingredients of the defensive system, some attention was given to the normal schemes of aerodrome security, such as shelter trenches, camouflage, dummy aircraft and so on. No dummy aerodromes had, however, actually been prepared by the time of the German advance, nor were dummy flare paths lit until June, after our aircraft at Herbeuville had been bombed during night operations. Arrangements had also been made to try out at Betheniville and Berry au Bac the Parachute and Cable system of aerodrome defence, by which a barrage of cables armed with parachutes was to be projected by rockets ahead of oncoming low flying enemy aircraft; but the German assault opened just before the first unit could be despatched to France.

Conclusion

It will be apparent from the foregoing paragraphs that, though progress had been made, the organisation of defence against enemy air attack was still in a very incomplete stage by May, 1940. That a multitude of problems still

/remained

Forma 540
Nos. 912 and
924 Squadrons

A.H.B.
file
II H2/141
passim

ibid
(10s)

Report on
A.A.S.F.

pages
37-38

A.H.B.
file
II H2/145
passim

A.H.B.
file
II H2/133
(1a)

remained to be settled may be seen not only from an examination of what existed, but from the fact that it was thought necessary, in early May, to form a special Air Defence Branch at B.A.F.F. Headquarters. This body, to consist of a Wing Commander and Squadron Leader on the Staff of the A.O.C.-in-C. together with a S.O. 2 representing the Major-General, A.A., was not to possess executive powers as a Branch, but was to examine the whole existing organisation, and to provide a clearing-house for all matters of Air Defence in France requiring co-ordination between Fighter Command, British Air Forces in France, the Major-General, A.A., G.H.Q., and G.Q.G. Air. By May 10th, it had been suggested that this Branch should, together with representatives from G.H.Q. and the French, form an Air Defence Committee. Equally it had also been found necessary to constitute an Air Defence Signal Board for the co-ordination of the means of reporting movements of enemy and friendly aircraft. By May 4th the Signal Board comprised, under the Chairmanship of Group Captain Theak, Chief Signals Officer, B.A.F.F., the following membership:- The Chief Army Signals Officer, B.A.F.F., an officer from Air Operations branch, B.A.F.F., the Officer Commanding No. 5 Signals Wing, a representative of the Signal Officer-in-Chief, B.E.F., and a representative of the Chief Signals Officer, L. of C. area. It was considered that representation would also be needed, on occasion, of No. 14 Fighter Group, and that after some experience French representation or the formation of an Allied Signals Board would be called for. Since these two bodies, the Air Defence Branch at B.A.F.F. Headquarters, and the Air Defence Signal Board, had barely come into existence by the time of the German attack, they are important as indications rather than as practical assets; and as indications they illustrate clearly that an enormous task still lay ahead if effective air defence were to be achieved in France.

A.H.B.
files
II H2/175
(1a)

VIII. DEVELOPMENTS IN THE MAINTENANCE ORGANISATION

The story of the developments which occurred between September 1939 and May 1940 in the sphere of maintenance is particularly complicated. Here it will be sufficient to indicate the subject in its broadest outlines: further detail may be found, in convenient form, in the A.A.S.F. Report (Section I, Administrative), in Air Marshal Barratt's Despatch (particularly Appendix M), and in the records attached to the Form 540 kept by the Staff of the Maintenance Officer-in-Chief at B.A.F.F. Headquarters. There is, however, a considerable element of the controversial in the subject: and the viewpoint which happens to be fully represented in the Air Historical Branch records is that of one side only - the Maintenance Officer-in-Chief. It is possible (though not certain) that a somewhat different aspect might appear were there equal documentation for whatever views were taken on matters as they arose by the Engineering and Equipment Staff at A.A.S.F. and Air Component Headquarters, and by the Officer Commanding No. 21 Aircraft Depot. Neither is it meet that the Air Ministry side should rest as it does here upon documents deposited from B.A.F.F. Headquarters: for there is a natural tendency for commands in the field to regard the Ministry at home as an instrument of unwitting obstruction. These caveats should be kept in mind as the narrative below is followed.

Early Modifications of the Original Maintenance Project.

The maintenance project for the A.A.S.F. and the Air Component, as it was originally planned, rested upon **the squadrons**, the Air Stores Parks, and No. 21 Aircraft Depot in the base area at Nantes. The squadrons were established for all routine inspections of their own aircraft and mechanical transport: and they were also to carry out limited repairs. Complementary to this squadron organisation were the special sections for supply and transport, for salvage and for railhead handling attached to the forward Air Stores Parks, which were themselves what their name implies: and beyond this was No. 21 Aircraft Depot, which, as originally planned, would have carried out major repairs, re-issuing repaired engines and airframes to both A.A.S.F. and Air Component, as well as containing a full equipment-holding section to serve both forces.

This project, however, had immediately to be modified on the outbreak of war, owing to the fact that sufficient equipment and skilled personnel were not available to set up No. 21 Aircraft Depot in its intended functions. In consequence of this it was decided to establish

/the

the Depot in an attenuated form, its Equipment Squadron ceasing to be a holding Unit and acting only as a transit pool, and its various repair and salvage sections being established only for minor work. This in turn meant that for equipment-holding the Air Stores Parks in the forward areas would have to be built up beyond the original intention, while the organisation for repair and salvage in the forward areas outside the squadrons would have to be remodelled. The solution adopted in the A.A.S.F. was the formation of Repair and Salvage Units, each comprising a Mobile Repair Section sent up from No. 21 Aircraft Depot, and a Railhead Handling Party and three Advanced Salvage Sections previously attached to the Air Stores Parks. These Repair and Salvage Units carried out both functions of their title: they were responsible for repairing or salvaging all aircraft forced landed or crashed away from their squadron, and all aircraft beyond squadron capacity to repair. Damaged aircraft which could be patched up for one flight to the United Kingdom for subsequent repair were so treated; while all airframes and engines beyond the capacity of the Repair and Salvage Units to repair, and all scrap material, were to be sent to No. 21 Aircraft Depot, although this was, in fact, in no position for many months to effect repairs of which the Repair and Salvage Units were incapable.

The Formation of Maintenance Control.

As a result of two or three months experience it became clear that the organisation for repair and salvage, while it might serve for the very limited operations of the opening phase of the war, would be quite inadequate for a period of intensive operations. It was also clear that it was dangerous to overload the Air Stores Parks in forward areas (for by this they had lost any degree of mobility), and that the whole equipment position would be considerably better if a full equipment - holding section of No. 21 Aircraft Depot could be developed as originally intended. To achieve these two ends, at the close of December 1939, the higher technical administration was re-modelled by the formation of a Maintenance Control under a Maintenance Officer-in-Chief (Air Commodore Thorold) who was given an appropriate staff.

Up to this date there had been beyond the officers in charge of technical administration in the A.A.S.F. and the Air Component, merely a small detachment, at G.H.Q., known as 'Q', R.A.F. which had arrived in France on October 10th. This had had the functions of co-ordinating the demands of the A.A.S.F. and the Air

/Component

Component for bombs, ammunition, pyrotechnics, fuel and oil, and of liaison with the Army authorities on such matters as storage and rail transport. On the appointment of the Maintenance Officer-in-Chief these functions were taken over from 'Q', which was absorbed in the new organisation. The Maintenance Officer-in-Chief at first continued the location near G.H.Q., but on February 29th, 1940, in response to orders from Air Marshal Barratt, his branch moved to Coulommiers, to be located in B.A.F.F. Headquarters. A Wing Commander and detachment were left near G.H.Q. to continue liaison with the Quartermaster General.

The responsibilities of the Maintenance Officer-in-Chief were defined to the following effect:-- he was responsible to the A.O.C.-in-C. (through the A.O.A.) for the technical administration and control of the maintenance services in France, his direction being effected through his representatives at A.A.S.F. and Air Component Headquarters: he advised the A.O.C.-in-C. on the formulation of a broad maintenance policy, keeping in touch with the A.O.C. A.A.S.F. and the A.O.C. Air Component to ensure that their special requirements were taken into account: he was responsible for representing air force needs to the Quartermaster General at G.H.Q., where their supply and movement was an Army responsibility. The Maintenance Officer-in-Chief also represented the Director General of Maintenance (Air Ministry) in France, dealt directly with Air Ministry on technical matters, and was to pursue close contact with Maintenance Command: it was thus hoped that good co-ordination would be obtained between the maintenance organisations in France and in the United Kingdom.

The special tasks which lay before the Maintenance Officer-in-Chief were, as indicated above, the development of No. 21 Aircraft Depot both in repair facilities and in equipment holding, and the extension and strengthening of the Repair and Salvage Units in the forward areas. These topics it will be convenient to treat separately.

No. 21 Aircraft Depot:

No. 21 Aircraft Depot (Group Captain McCrae) had thus far experienced every kind of difficulty. On arrival it had found no adequate accommodation for its work, for the hangars on Chateau Bougon aerodrome were not vacated by the French till the beginning of November. Equipment arrived with no means of unpacking it and nowhere to store it. Depot personnel had to be employed on erecting Bessoneau hangars and tentage, making roads, constructing drainage, and carrying on a general struggle for existence.

H.Q. B.A.F.F.
Form 540
(Maintenance)
Appendix D
(Attachment A)

M.O. in-C
1st Progress
Report

Few sites were available for the various sections, and much of the ground turned out to be unsuitable. As late as the first week in January, personnel were still living in tents "under appalling conditions". Moreover, even the administrative status of the Depot was unsatisfactory. Intended to serve both A.A.S.F. and Air Component, it was administered by H.Q. No.2 Base Area (Group Captain Carr), which until January 1940 was itself administered by H.Q. A.A.S.F. This kind of administrative roundaboutness was the result of the original organisation of our forces in France into two such separate formations as the A.A.S.F. and the Air Component; and a change could not occur until the institution of the B.A.F.F. Command in January 1940. From this point No.2 Base Area became a separate formation of its own, like the A.A.S.F., under B.A.F.F.: it continued to administer No.21 Aircraft Depot, which however now no longer suffered the anomaly of coming indirectly under one of the two formations it was intended to serve. Moreover, the appointment of a Maintenance Officer-in-Chief as part of B.A.F.F. Headquarters now enabled more authoritative representations to be made; and some improvement in the production of equipment rendered it possible to develop the Depot more in accordance with original intentions.

At the time of the appointment of the Maintenance Officer-in-Chief no real start had been made towards building up the Equipment Holding Unit of No.21 Aircraft Depot, apart from the erection of some Bessoneau hangars. It had, however, been decided that the Unit should be formed, with an initial issue of six weeks' supply for British Air Forces in France. By the end of January 1940, the Equipment Squadron was being brought up to the necessary strength, and some of the large Bellman hangars to house the stocks had arrived.

A month later the erection of one of these was nearly complete, and the squadron was in a position to issue items of equipment in the clothing section. As the Depot reported readiness to issue in any particular section, so the holdings of the forward Air Stores Parks in those items were reduced, and the necessity for them to draw stocks direct from the United Kingdom was avoided. During February the Holding Unit at the Depot began to receive items in other sections, and by March it was handling about 175 tons of incoming stores, per week. It was suffering, however, from an absence of many necessary facilities, and from the fact that it was still several officers below establishment. By the end of April it was prepared to receive from the United

/Kingdom

Kingdom all items of the Vocabulary up to a six week's stock, and to issue in France, in addition to clothing, items from the Barracks Stores and M. T. Spares sections. By May 14th - four days after the German attack opened - the Equipment Holding Unit was at last in a position to issue from all sections of the Vocabulary.

Side by side with the development of the Equipment Holding Unit went the development of the repair and salvage facilities at No. 21 Aircraft Depot. By the end of January, under the interim policy announced on September 6th, some aircraft salvage had been carried out, together with some repair of M. T. and construction of gun mountings. This was on a very small scale however: very little salvage had been returned to the United Kingdom, and it had not been possible to achieve any output of repaired airframes or engines. As the result of proposals made by the Maintenance Officer-in-Chief in February, within a broad framework previously determined at Air Ministry, the following policy for the Depot was then finally decided upon:-

- (i) Limited repair to airframes, up to 400 man-hours per job for a complete airframe, or 150 man-hours for fuselage. Limited repair to engines, in particular the servicing of cylinders and cylinder-blocks. Light repairs to M. T., in particular by replacement - and similarly for ancillary equipment. No complete overhauls or major repairs for airframes, engines, M. T. or ancillary equipment.
- (b) Repair in situ of slightly damaged aircraft which could be flown off after repair, in areas outside those of the forward Repair and Salvage Units with the A. A. S. F. and Air Component.
- (c) Salvage of aircraft in France outside the areas covered by the Repair and Salvage Units.
- (d) Despatch to the United Kingdom of all repairable equipment beyond depot capacity.
- (e) Reduction to scrap and disposal of all equipment damaged beyond economical repair.

This policy was not, however, issued with full Air Ministry authority till

/March

March 27th, and there was further delay in filling the new establishments deemed necessary: this in itself, apart from the other innumerable difficulties, made for slow progress.

Up to this time the engineering section of No. 21 Aircraft Depot had been working to no very clearly defined policy. Little in the way of machinery and tools had been available, and the personnel had borne "little relation to the requirements of Repair, Servicing and Salvage". The skilled personnel had perforce been employed on the construction of roads, the erection of hangars, etc. From March onwards, however, under the newly defined policy, more progress was made: machine tools began to arrive; and the Maintenance Officer-in-Chief, writing on April 9th, reported to this effect - "In view of the comparative neglect of Maintenance in its larger aspects during the first four months of the war, much still remains to be done. In the absence of active hostilities --- which would result in retarding the development of the Depot --- it is considered that the Depot (Equipment and Engineering aspects) --- should be operating, with a considerable measure of efficiency, at the end of two months' time". In his last progress report, issued on May 8th, Air Commodore Thorold noted that the Engine Repair Section was in production on a small scale, three Merlin II engines having actually been overhauled. The Airframe Repair Section was functioning likewise, one Battle and four Hurricanes having been completed. The M.T. Repair Section was rather more advanced - 41 vehicles had been overhauled since January. The Machine Shop was almost ready to operate, but, in the absence of the long-deferred connection of the Depot with the French electric mains, awaited a full quota of power-trailers. The Armament Repair Section was working satisfactorily, and had overhauled and tested 88 # guns. The Salvage Section had handled and classified 78 trucks of salvaged components during April, and had reduced 20 airframes to produce. Forty-eight of the fifty-two repairable engines received from the forward areas during April had been sent on to the United Kingdom, in accordance with policy. The whole picture presented is one of steady but slow and limited progress, with an implication that a very considerable advance would have been apparent by the end of May or June.

/Repair

Repair and Salvage Units

A.H.B. file
II H2/259-
passim

So much for the development of No. 21 Aircraft Depot. The other part of the task that was to be faced lay in the development of the repair and salvage organisation in the forward areas. This was, in fact, probably more important than what was happening at Nantes in the rear. It has already been mentioned that Repair and Salvage Units had been improvised from Repair, Handling and Salvage Sections which had originally been attached to No. 21 Aircraft Depot or to the Air Stores Parks. The intention, as advanced by the Maintenance Officer-in-Chief and promulgated by Air Ministry on March 27th, was that this impromptu arrangement should be confirmed and strengthened. To this end the amalgamation of the Repair, Handling and Salvage Sections into Repair and Salvage Units was to be regarded as permanent, and the Sections were therefore divorced administratively from the Aircraft Depot and the Air Stores Parks which had originally been responsible for them. The Repair and Salvage Units were to be given more equipment, more M.T. and an increased establishment in personnel, and thus were to become self-contained. It was considered that three of these units should function under the A.A. S.F., and three under the Air Component; but owing to the greater estimated wastage in the Air Component, the Repair and Salvage Units with that formation were to possess a greater number of mobile salvage sections than were the Repair and Salvage Units with the A.A. S.F. The composition of a Repair and Salvage Unit was thus to be:- Headquarters, Inspection and Repair Section, M.T. Repair Section, Handling and Despatch Section, Mobile Repair Sections (2), and Mobile Salvage Sections (1, 2 or 3); and the function of the Units as a whole was defined as:-

- (a) Repair of airframes, engines and M.T. beyond the capacity of squadrons up to a limit of 200 man-hours per job.
- (b) Repair of slightly damaged aircraft 'in situ'.
- (c) Salvage of aircraft and M.T. damaged beyond repair 'in situ', or beyond the capacity of squadrons to repair.
- (d) Relieving squadrons of major inspections of aircraft.
- (e) Assisting Squadrons with repair and modifications.

/(f)

- (f) Conditioning salvaged equipment and components.
- (g) Return to Air Stores Parks, for re-issue, of serviceable equipment and component not required by Repair and Salvage Units.
- (h) Return to No. 21 Aircraft Depot, or the United Kingdom, of repairable airframes engines M.T. and components beyond the capacity of Repair and Salvage Units.
- (i) Return of Scrap to No. 21 Aircraft Depot, the United Kingdom or Army Salvage Centre as appropriate.

The full development of these Units was never completely achieved. A certain degree of progress was made, for some of the quota of machine-tool trailers and Bessoneau hangars arrived with the Units, and necessary transfers of M.T. and personnel between the A.A.S.F. and the Air Component had been or were being carried out. The full establishment of M.T. and personnel as approved by Air Ministry had still not been achieved by May 10th however, and the battle was thus joined with the Repair and Salvage Units still in a state of re-organisation. For this delay there were many reasons, the most important of which were basically to do with shortage of equipment of one kind or another. A clear instance of this was the difficulty of equipping the Units with machine-tool trailers. These were to be released from No. 21 Aircraft Depot: but the Depot could not release them until its permanent machinery was installed: and the Depot's permanent machinery could not be installed until a Bellman Hangar to receive it had been erected. Thus an action which had been agreed on early in January was still unachieved in May. Similarly with power-trailers, which were also to be released from No. 21 Aircraft Depot: but the Depot could neither get connected to the French power and light mains, nor could it secure other power-trailers in replacement if it surrendered its own. Absolute scarcity of equipment, coupled with the new commitments we were undertaking in Scandinavia, certainly seems to have accounted for much: but it is also difficult to resist the impression that the interval between the conception of the scheme and the issue of policy letters from Air Ministry was far too long. The Maintenance Officer-in-Chief was also of

the opinion that some of the delay was caused by the limitations of his own executive authority. Indeed, in the A.A.S.F. there seems to have been some disagreement with the policy itself, for the reduction of the number of Salvage Sections in the new Units was considered unwise. In fact the A.A.S.F. apparently did not attempt to give effect to the new establishment in this direction; and it appears that even though some five months had elapsed since the subject was breached, there was in respect to it a lack of close co-ordination between Air Ministry, Maintenance Staff at B.A.F.F. Headquarters, and the A.A.S.F.

The impact of the period of intense operations upon the maintenance system that had been evolved is a later story. The difficulties and delays which beset the development of the organisation are, however, already clear. These were such as to convince Air Marshal Barratt that it might have been profitable had a different approach to the whole subject been made. The planning, mobilisation and despatch of the necessary maintenance units simultaneously with the rest of the Force might, he suggested as a result of his experience in France, be advantageously undertaken as a normal function by Maintenance Command, which could also give guidance in the field in matters of technical policy and organisation as well as supply. Moreover, the Maintenance Officer-in-Chief, instead of being on the A.O.C.-in-C's staff, should in Air Marshal Barratt's opinion, have been in executive control of the chief maintenance units in the field, commanding the Aircraft Depot in a small force, and a Maintenance Group in a large force. For matters of technical progress the Maintenance Officer-in-Chief would then have received the guidance of Maintenance Command; while in matters of broad maintenance requirements, such as scale and location of reserves, or operational priorities, he would have implemented the policy laid down by the A.O.C.-in-C. through his administrative staff, as advised by the Engineer and Equipment services normally attached to Command Headquarters. This is not the place for examination of the merit of Air Marshal Barratt's proposals; it is sufficient in this context to record that he made these proposals in the light of his experience, and that he regarded the system actually applied in France as far from ideal.

Report on
A.A.S.F.
Part I
Page 16.

Air Marshal
Barratt's
Despatch
paragraphs
128-191

Diagram 1.

Final Maintenance Organisation in France

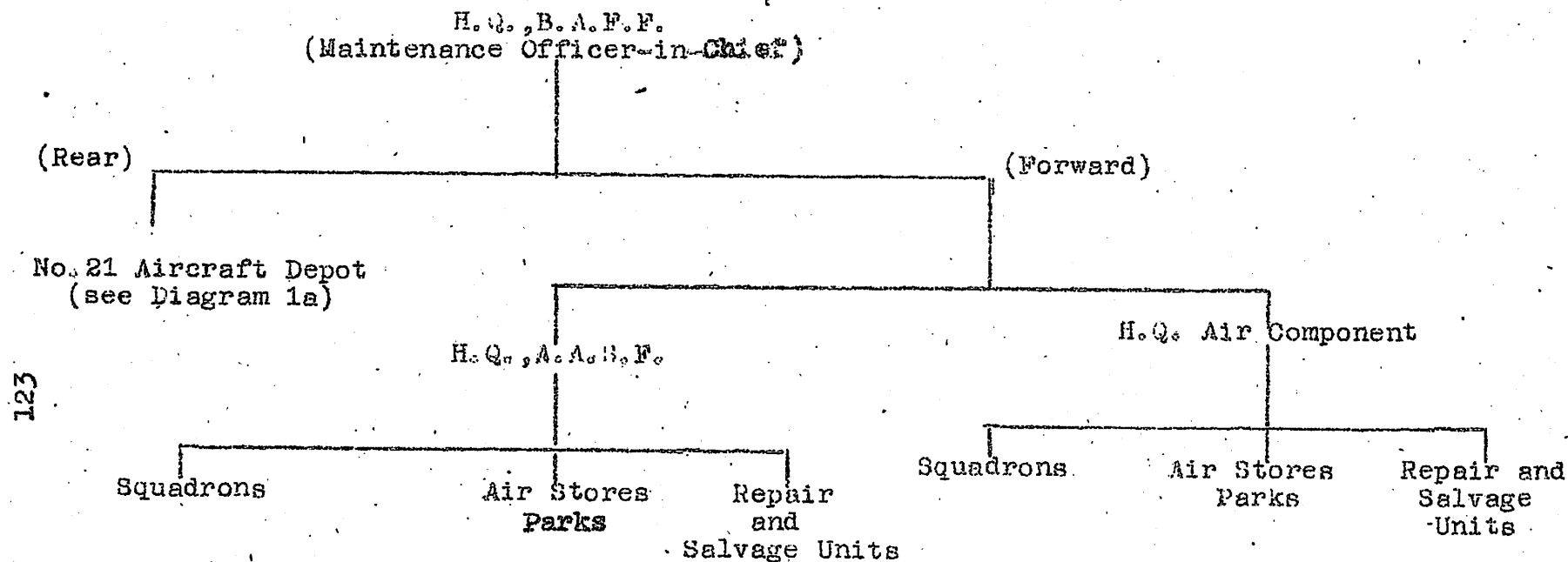
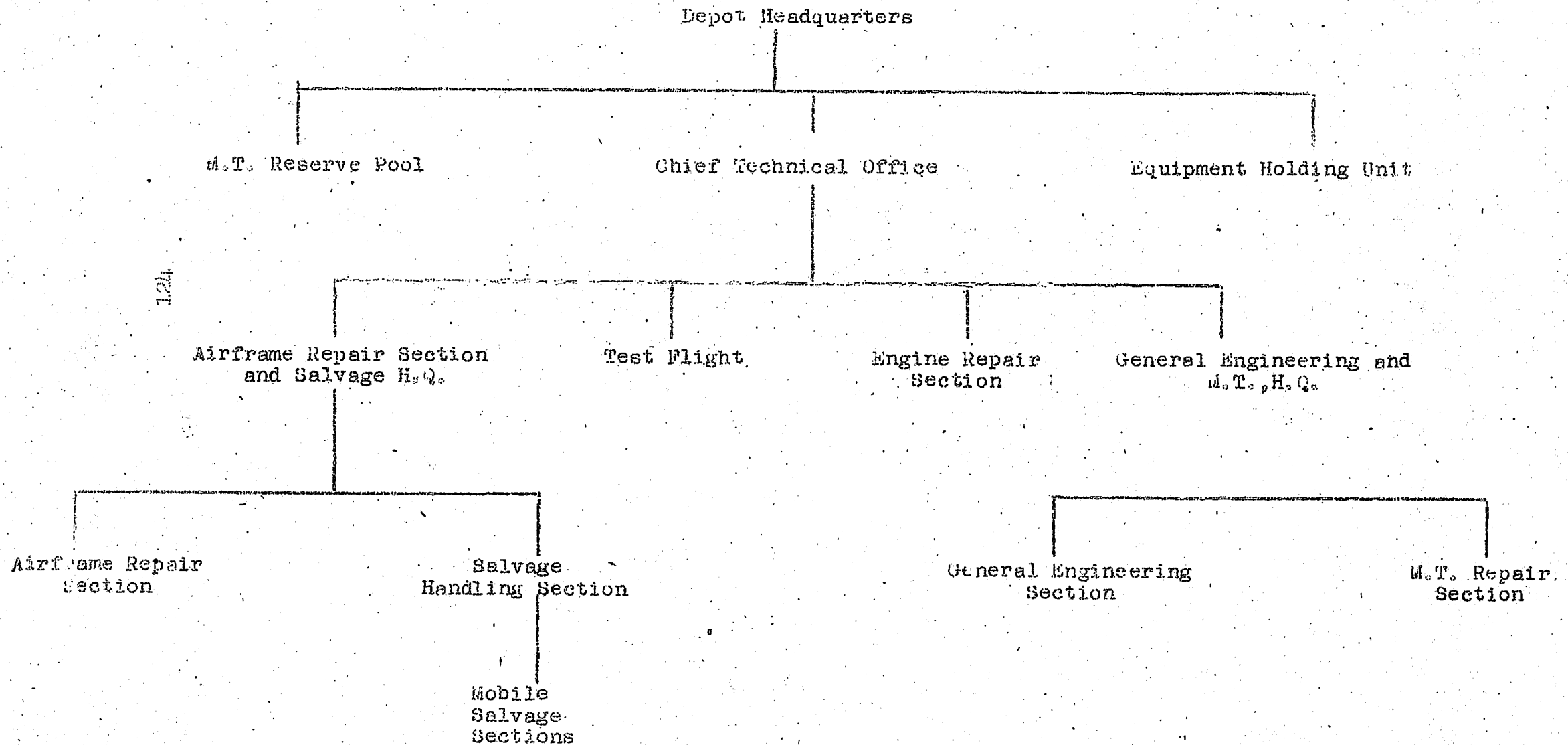


Diagram 1a

Internal Organisation of No. 21 Aircraft Depot



IX. ORGANISATION FOR MOBILITY : MECHANICAL TRANSPORT

The subject of mobility, as it is discussed here, must be distinguished from the widest use of the term, which may cover a vast array of topics from organisation for the impromptu construction of aerodromes to rapid methods of fighter reinforcement at long distances. The narrower, and less difficult sense of mobility is what is now under consideration - the ability of a force to carry out a general simultaneous movement over a limited land area without reliance on extraneous means of conveyance. In this context the most vital factor for the campaign in France was the establishment in mechanical transport, for our resources in transport aircraft were too limited to offer any solution to the problem. It is therefore proposed to consider mobility from the point of view of mechanical transport alone. The subject is of importance, for after eight months of static (and almost pacific) warfare, the British Air Forces in France found themselves suddenly plunged into a campaign which demanded mobility to the utmost degree: and it is interesting to see how far this had been contemplated beforehand.

The Determining Factors

See Part I:
The Anglo-French
Conversations
above.

The degree of mobility for which arrangements were made naturally depended on two basic factors - the broad conception of the campaign, and the supply of equipment. Of these, equipment was the more fundamental factor: for the state of the allied effectives vis a vis those of Germany had in itself dictated the general allied strategy. This, it will be remembered, was for the first phase of the war, purely defensive, save in the economic sphere: we reckoned that we should have to "hold" a German attack in the West, while the passage of time gradually enabled us to equip ourselves (and recruit allies) for our later offensive movements. Even when the Dyle - Meuse manoeuvre was adopted, this too was in essence defensive - to forestall the Germans on a line on which we might stand, gaining the advantages of a shorter front, defence in depth for the French industries of the North East, and denial of Belgian air and sea bases to the enemy. For such a campaign - and nothing more offensive could be visualised for a period of two or three years at least - it was obviously necessary to ensure sufficient mobility for some portion of the Air Component to be able to advance into Belgium: but it was not necessary to ensure simultaneous mobility for all the Air Component, or for all the A.A.S.F. unless the movement was likely to be in the form of a rapid retreat.

Obviously, the likelihood of the allied lines holding was primarily a question for the

/soldiers.

soldiers. It is dangerous to generalise on a matter such as this, save from a study of the most complete sources: but it can be said that expressions of profound doubt on the part of the military leaders were rare. The French rather than the British were, of course, the responsible authorities, and it may be that the French mind on this subject was never revealed fully to us. Certainly the French repeatedly emphasised the desirability of a large quota of British help in all ways; and spoke of the forthcoming German attack as the grand crisis of the war. But no such picture of the pathetic equipment of the French armies as was published after the defeat seems to have been available to guide our Air Staff: indeed, if what emerged afterwards was entirely true, and had been plainly revealed before, it is difficult to see how the allied governments would have dared to challenge the aggression against Poland, unless they were entirely mistaken in their estimate of German land strength. It seems undeniable that whatever doubts may have been entertained in some French quarters, the British were encouraged to believe in the quality of the French army and the strength of the Maginot Line: and a natural implication of these beliefs was that a German advance could only be hardly won, and of a limited character. Thus while it would be untrue to say that there was no contemplation of the possibility of a German advance in the Northern sectors, it would be true to say that there was little or no conception of what a break-through by German armoured forces could imply. The opinion was rather that, if our foremost defences were unfortunately breached, the German advance would be halted further back: that the lines and salients of relatively static warfare would at some point crystallise; and that advance and retreat would be a comparatively slow process. The effect of all this general body of military opinion on the planning of air force mobility is obvious; for no one thought that the Air Component would be compelled to evacuate the continent within nine or ten days of the opening of a German offensive, or that within five weeks the A.A.S.F. would be chased across the breadth of France.

The M.T. Re-organisation Scheme.

In the original organisation, the Air Component was established to a greater degree of mobility than the A.A.S.F., for squadrons (but not ancillary units) were completely mobile in the former, while in the latter neither squadrons nor ancillary units were completely mobile.

Air Marshal
Barratt's
Despatch:
para. 45:
and appendix
L. para. 1.

Supply

Report on
A. A. S. F.
Section I
(Administrative)
page 58.

Supply and Transport Sections were attached to the Air Stores Parks of the A. A. S. F., and were available for the general transport requirements of the force, but not in such a strength as to render the whole force mobile at any one time. The early events in the life of the A. A. S. F., however, somewhat upset the organisation - in particular the decision to base not more than one squadron on each aerodrome, and in general the force found itself short of vans and cars for domestic needs. Something was done to alleviate this by the local purchase of forty Renault vans in October, and the arrival of a few buses in November, for the distances between billets and aerodromes were often considerable. On the other hand, the Air Ministry seems to have considered that the force was not economically organised in 3-ton tenders. The reorganisation of the five bombers wings into three, and the formation of B. A. F. F. Command early in the New Year gave a suitable opportunity for a review of the whole position in regard to mechanical transport, and it was arranged that a Sub-Committee of the Establishments Committee should visit France in January, 1940.

A. H. B.
file
II H2/262
(7a)

The intention of the investigation to be arranged was announced beforehand by the Director of Organisation. It was "to try to effect economy in M. T. by pooling where possible, to ensure proper maintenance and also to adjust establishments to include more suitable types of vehicles." Its aim was thus not to increase mobility, but to effect the most economical organisation. The ideas with which the Sub-Committee began are contained in a paper which was sent in advance to A. A. S. F. and B. A. F. F. Headquarters; and since the opening paragraphs of this paper contain a clear statement of the historical background, and of the ideas entertained in London on the degree of mobility necessary for the A. A. S. F. they are worth quoting in full -

ibid
(6B)

"Owing to the strategical position of the A. A. S. F. behind a strong fortified line, the degree of mobility required for the units is small. Although individual units may move from time to time, the movement of the whole force at one time is regarded as improbable. The A. A. S. F. was organised, in the Administrative Plan, on a two squadron Wing basis following closely on the home organisation. Most of the M. T. and administrative facilities were established on the Wing H. Q. and the squadrons themselves kept as small as possible. It was assumed that both squadrons of each Wing would operate from the same aerodrome. As regards

Air Stores Parks, it was realised that any attempt to make them fully mobile would defeat its own object owing to the very large number of vehicles which would be required to put this into effect. It was therefore decided to keep only 50% of the normal holdings of the Parks on wheels, but to establish sufficient load carriers on the H.Q.s. to enable one of the three Equipment Sections to be made fully mobile at short notice.

Since the arrival of the A.A.S.F. in France the following factors have contributed towards making the force even less mobile as a whole:-

- (i) The nature of the land line communications.
- (ii) Provision of bomb and fuel dumps in the forward areas.
- (iii) Provision of hutting and other accommodation.
- (iv) Increases in scales of clothing, blankets, &c.
- (v) Establishment of an A.A. Brigade which has only a very limited degree of mobility.

It has now been decided on other papers that the A.A.S.F. is to be reorganised on the system of small operational Wing H.Q.s. controlling three or four self-contained squadrons, as it has been found necessary for each squadron to be located on a separate aerodrome in a widely dispersed area.

In view of the foregoing, it is now proposed to adopt an administrative policy whereby the mobility of the A.A.S.F. is limited to the moving of not more than four of the squadrons at any one time. To do this it is proposed to take most of the load carrying vehicles from A.A.S.F. H.Q. and the forward units, and to organise Wing M.T. Companies which will consist of load carriers to be used to assist squadrons and other units as necessary.

/The

The two Fighter Squadrons in the A. A. S. F. are regarded in a different light to the Bomber Squadrons, and it is not proposed to reduce their mobility or include them in this reorganisation. They will, however, be able to obtain assistance from the Wing M. T. Companies if necessary owing to the length of their L. of C."

With the formation of these new Wing M. T. Companies (each to be capable of serving four Squadrons, one Air Stores Park and ancillary units) it was calculated that the existing Supply and Transport Sections could be abolished. Altogether it was hoped by these proposals to achieve a reduction of nearly 150 3-ton tenders with the A. A. S. F., and to use these principally to replenish the 15% reserve holding in No. 21 Aircraft Depot, which had been virtually exhausted. It was also hoped to apply similar proposals to the Air Component.

ibid.
(8a & 8b)

While the idea of pooling some of the heavy transport in Wing M. T. Companies could be accepted by the Commanders in France, it was very difficult for them to agree to every detail of a scheme which would have considerably reduced the mobility of their forces. Air Marshal Barratt was by no means inclined to accept the proposition that the A. A. S. F. was in a completely safe locality. Against the statement that "owing to the strategical position of the A. A. S. F. behind a strong fortified line the degree of mobility required for the units is small", a pencilled note in his hand makes the significant comment - "East - yes, North - ?"; and this view he proceeded to urge on the investigating committee. Equally Air Vice-Marshal Blount, protesting against proposals for economy which would have "drastically reduced" the mobility of the Air Component, is found writing thus to Air Marshal Barratt: - "The Establishments Committee have done most excellent work, and have examined the problem as thoroughly as possible, but they will admit that in the absence of practical experience, their proposals are based on surmise, to a certain extent. So also, must be my counter-proposals. We cannot expect immediately to obtain the exact provision of Transport which combines simultaneously maximum economy with sufficient mobility, and, if we are going to err, and I think we cannot avoid doing so slightly, we should err on the generous side."

ibid.
(6b)

ibid.
(13a)

The A. O. C. in C's views on the degree of mobility necessary were urged on the investigating committee at a conference at B. A. F. F. Headquarters on February 5th; and, according to his own statement, they were accepted. It was then left for Air Ministry to produce their revised scheme.

ibid.
(16a)

ibid
(16a)

On February 25th the Air Ministry issued their proposed new establishments of M.T., but the full scheme for its re-organisation was not yet forthcoming, nor were personnel establishments issued. Air Marshal Barratt represented to Air Ministry that the matter had now been under consideration for six weeks, and requested despatch of the scheme at an early date; and the scheme was eventually issued by Air Ministry on April 8th, though without the personnel establishments for the new Headquarters M.T. Companies in the A.A.S.F.

ibid
(23a)

The new Air Ministry scheme listed, among others, the following conclusions on the existing position in France --

- " (1) There was insufficient transport reserve to render all units adequately mobile.
- (2) There was a definite requirement for a much larger number of light vehicles for day to day use.
- (3) Heavy vehicles not required for day to day use if withdrawn from units and held in pools could be maintained more efficiently.
- (4) M.T. pools were required which could supply transport for fuel and explosives for units and also provide vehicles necessary to squadrons to enable them to move complete.
- (5) The holding of the whole of the 15% reserves at No. 21 Aircraft Depot was not satisfactory, owing to the large distance to be covered....."

The scheme therefore allowed for a large increase in light vans; the reduction of heavy tenders within squadrons to numbers which would enable them to move essential stores and personnel for 3 days' operations, or within other units to numbers necessary for day to day use; the introduction of M.T. pools in the Air Component on a Group, Wing and H.Q. basis; the introduction of three M.T. pools (Explosives, Fuel and General) under A.A.S.F. Headquarters, to serve the A.A.S.F. bomber squadrons, but the preservation of complete self-contained mobility for No. 67 (Fighter) Wing; and the splitting of the 15% reserve previously held at Nantes among No. 21 Aircraft Depot, A.A.S.F. and Air Component. It was reckoned that the general effect on mobility

/would

would be as follows:-

Air Component.

(1) Squadrons.

All squadrons could move their essential personnel and equipment at once with their own M.T. Remaining personnel and equipment could be moved and squadrons kept supplied with fuel and explosives by M.T. in pools.

(2) Air Stores Parks.

Essentials for two weeks' consumption of two of the three Parks could be moved by M.T. in the Headquarters Pool.

A. A. S. F.

(1) Squadrons.

Fighter Wing H.Q. and two squadrons completely mobile; bombers could move all essentials at once, plus non-essentials of four squadrons by H.Q. pool - i.e., four bomber squadrons completely mobile. Remaining six bomber squadrons must await return of M.T. for move of non-essentials.

(2) Air Stores Parks.

With own M.T. plus vehicles in H.Q. pool, could move essentials for two weeks' consumption.

Progress Achieved in Implementing the Scheme.

The degree of mobility that would have been achieved by this scheme was, in fact, considerably less than that recommended by Air Marshal Barratt at the conference on February 5th, which he thought had been approved by the investigating committee. Even this new degree of mobility, however, was not attained. On April 17th Air Marshal Barratt wrote to the Air Ministry complaining that the reorganisation in the A.A.S.F. was held up because the new establishments for Headquarters M.T. Companies had not yet been received, and listing the following deficiencies in vehicles:-

/Vehicle

<u>Vehicle</u>	<u>Deficient on Existing Establishments.</u>	<u>Reserve Pool not yet established.</u>	<u>Total Deficiencies.</u>
Cars. Staff	23	30	53
Tenders. 3-ton	116	200	316
" 30-cwt.	36	20	56
Vans. 15 cwt.	69	40	109 *
" 10/15 cwt.	66	40	106
Trailers, petrol, 450 gallons	28	25	53
" power, 7 Kw	31	15	46
" W/T Receiving	22	10	32

ibid
(34a)

Thus the deficiencies on April 17th in these classes, of which the large tenders and the vans were the most serious, totalled, according to B.A.F.F. reckoning, some 771 vehicles. In a letter to Air Marshal Sir Christopher Courtney, two or three days later, Air Marshal Barratt emphasised the gravity of the position in these words. "If operations break out in the near future my ability, either to move squadrons or to keep them properly supplied, gives me considerable concern. If any of the M.T. which I do possess is damaged by air action, the position is going to be even worse." That the B.A.F.F. figures were not over-stated can be seen from the Air Ministry figures passed from W.O.3. to M.8 during April. These in fact do not correspond exactly, but in the above classes they totalled 708 vehicles, while the other classes not mentioned by B.A.F.F. Headquarters totalled a further 300 or so vehicles, making a total deficiency of about 1,000 vehicles in all.

ibid (30a)

ibid (36a)

On May 7th Air Marshal Barratt despatched a request to Air Ministry for a statement of what action was being taken to make up the deficiency, and on May 11th an official answer from the Directorate of Organisation vouchsafed an explanation of the delay. This, it was explained, had been caused by (1) failure on the part of contractors to deliver 3-ton tenders in accordance with contract; (2) the fact that the lighter type of van was a new development for the continental units, and that it had only just become possible to obtain supplies to meet the new commitments; (3) and finally, the fact that 'very urgent needs' (presumably the Scandinavian ventures) had absorbed vehicles which would otherwise have been available for France, together with the prior attention of the Maintenance Units responsible for preparing transport and equipment. It was announced, however, /that

* Wrongly added up in original as 89.

that the establishment of the M.T. Companies for A.A.S.F. Headquarters had now been issued, and that many vehicles had recently been or were about to be shipped. This, however, was the day after the German assault had opened. On May 15th, it was calculated at B.A.F.F. Headquarters that the forces in France were still nearly 600 vehicles short in the main classes, though approximately 200 of these were in transit. The following day, both A.A.S.F. and Air Component were to need all the transport they could lay hands on.

ibid
(41a)

Report on
A.A.S.F.
Section I
(Administrative) page 58.

It thus came about that, when the moment of crisis arrived, the British Air Forces in France were not only established to an official basis which was only semi-mobile, but were actually 600 vehicles short of this semi-mobility. In the Air Component it had been possible to carry out the reorganisation into Wing and Group M.T. Companies: but for the A.A.S.F. the delay in issuing establishments was such that the Headquarters M.T. pools projected in February were still not achieved by May. Ultimately it was necessary for the A.A.S.F. out of self-preservation, to achieve mobility by borrowing transport from the French and by reducing the number of its operational bomber squadrons from ten to six. The story of this is recounted in the narrative subsequent to May 10th. #

X TRAINING AND EXERCISES

It may perhaps appear unnecessary to discuss the training of a force which was liable to take part in active operations at any moment, but certain features in this context were peculiar to the situation in France between the outbreak of the war and the German attack in May, and will repay investigation.

The initial position was not unnaturally that no arrangements had been made for any detailed scheme of training, for it was expected that our air forces in France would be immediately engaged in active operations. Till December 1939 something of this atmosphere still persisted: in the A.A.S.F., for example, training arrangements were made purely on a local wing basis, and followed no systematic directive from Headquarters. It was not until January 1940 that a full training programme began to be organised. The necessity and importance of this needs to be explained.

The Original State of Training of the Air Crews.

The state of training of the crews who originally went out to France naturally varied. In some aspects it seems to have been almost uniformly good: in others, however, it was very incomplete. For the particular operations which were contemplated. Such additional practice as the Lysanders of the Air Component needed in their task of day tactical reconnaissance could fairly easily be obtained, but some of the other squadrons were cast for roles with which they were unfamiliar. Thus at the outbreak of war only three pilots of No. 59 Squadron, whose task was night reconnaissance, were qualified as first pilots by night, while the pilots of one flight had no experience of their particular aircraft (Blenheim IVs) at all. All pilots of the Squadron, it is true, were qualified by day on Blenheim IVs by the time it went to France: but a great deal of work was necessary before they were capable of night strategical reconnaissance. The biggest task, however, lay before the Battles of the A.A.S.F., who had a double programme to execute. In the first place they had to apply their peace-time day training to the more detailed business of practising support of troops in a land battle, which was now recognised as their main function. Secondly, an entirely new departure was made in January 1940 when it was decided that night flying should be included in their operational role. Very few of the Battle pilots had done much night-flying, and it was a matter of grave doubt in many quarters whether long night flights could be successfully carried out in Battles. The training programme before the A.A.S.F. was thus arduous and dangerous.

An additional factor which made full training facilities necessary was the very incomplete state of training in which some of the replacement

/pilots

pilots arrived. This seems to have been particularly felt with the fighter squadrons of the A.A.S.F., where instances are recorded of pilots arriving without having had any experience of formation-flying, high-flying, or the use of oxygen. At the beginning of April the A.A.S.F. instanced three pilots who had lately been sent to No. 67 Wing, and whose flying experience on Hurricanes averaged 13 hours each, all by day. None had carried out radio-telephony or oxygen practice: only one of the three had practised any blind flying: and none had practised standard fighter attacks Nos. 1 to 4, except for one pilot who had practised No. 1 attack. More than one of the new pilots who arrived without ever having fired guns in the air was to have his first experience of doing this in actual combat with the enemy. Obviously such a situation necessitated hard work on the part of the experienced pilots of the squadrons to bring on the newcomers. Equally, in the Air Component, several Lysander replacement pilots arrived without having gone through an instrument-flying course - a situation which seems to have been caused by the shortage of blind-flying hoods and columns 7 and 9 equipment at No. 2 School of Army Co-operation.

Restrictions on Training

Though such factors rendered a great deal of training necessary, a host of difficulties arose to hinder its execution. Throughout December, January and February the weather was extremely severe. There was great difficulty in getting aircraft started up: aerodromes became unserviceable - at the beginning of February all A.A.S.F. aerodromes were out of action except Reims - Champagne: and the poor state of the aerodromes was rapidly reflected in the damage suffered by aircraft. The tail units of Hurricanes, Blenheims and Lysanders gave the most frequent trouble, for their stern posts were unable to withstand the bumping on frozen ruts and molehills. Replacement of the broken parts was by no means speedy and on occasion took up to six weeks when fresh parts had to be sent from the United Kingdom. Such conditions were an obvious limitation on training, for a large proportion of the force had perforce to risk no unnecessary casualties in case active operations began at little notice. Moreover, in such circumstances even the best trained pilots began to feel the lack of practice: and the inactivity and the difficult living conditions to which some were exposed can have had no favourable effect upon morale.

The restrictions imposed by weather and attendant unserviceability were severe and galling, but at least they were not purely gratuitous. Such, however, were the restrictions of another kind - the flying and routing regulations imposed by the French. Little progress in obtaining facilities seems to have been made until January 1940, when the French were apparently told that complete units would be transferred to England for training if facilities were not available in France. After this a progressive improvement in facilities was obtained by dint of

/constant

H.Q.
B.A.F.F.
Form 540
1/4/40
(Appendix)

A.H.B. file
II H2/297
(24a, 31a)

constant pressure: but the matter was never easy, and the French were always loth to permit any exception to the hard and fast limitations designed for the benefit of their air defence organisation. In January, No.1 Armament Training School was opened at Perpignan, near the Spanish border, primarily for bombing and air firing practice, but with a night flying area available later. To this squadrons could be detached in turn from A.A.S.F. or Air Component: but the distance from their bases naturally made the visit somewhat of a business, though the change of atmosphere seems to have done the crews good. Later, another night flying area was made available near Rennes: but for anything at less distance from their own bases crews were limited to purely local circuits and bumps, a flight along a narrow corridor which rapidly became very well known, or flying along one of the beacons corridor approaches to the German frontier. These could give no training in navigation by night over a long cross-country trip, which was what had come to be demanded of the Battles: and the A.A.S.F. training programme therefore laid down the remarkable order that night navigational training, as soon as the crews were sufficiently advanced, should be carried out over Germany, the risk from whose defences by night did not at that time appear considerable. It must be emphasised that when this decision was taken, the object was not to train the Battles in locating any particular German targets, but simply to avoid the restrictions imposed by the French. As Air Vice Marshal Eville explained to Air Vice Marshal Sholto Douglas (A.C.A.S.(T)) on April 3rd, by which date facilities were much improved - ".....the complications involved in obtaining any facilities from the French and subsequently in retaining them have to be experienced to be believed. Our allies are full of goodwill but the intricacies of their system are formidable. Perhaps they would feel the same about ours."

The difficulty in obtaining facilities for night-flying applied, of course, equally to cloud-flying, which in fact had to be practised over an even more restricted area. It must be emphasised, however, that the backward state of instrument flying was by no means entirely the fault of the French restrictions, for the deficiencies in our own training equipment were an equally contributory cause. This has already been mentioned in connection with the output of replacement Lysander pilots. In France it was the more felt because neither Battle nor Blenheim was a dual control aircraft. Dual conversion sets, though requested, were too scarce to be provided for the A.A.S.F. Blenheims: and by the time arrangements had been made to supply some dual-control Battle aircraft for instrument-flying training the German attack had been launched. Link trainers were also few and far between, and arrived too late for the maximum advantage to be taken of them.

/Intensive

A.H.B. file
II H2/286
(12a & 17b)

A.H.B. file
II H2/229
(4a)

A.H.B. file
II H2/296
(29a)

Intensive Night Training by Battles

The backward state of instrument-flying consequent on these factors began particularly to be felt in March, when the A.A.S.F. Battles began intensive night training for participation in Plan W.A.16 - the mining of German waterways. This had been favoured as a convenient small-size plan, which might have the advantage of restricting German river transport and taking some sort of initiative, without entailing the disadvantages that would follow from fully 'opening up' the bombing war while we were still at such numerical inferiority. The Battles were cast for the role of mining a section of the Rhine, and training therefore proceeded intensively in night cross-country flying and in the mine-laying, lamps being laid out to represent a river at the St. Hilaire bombing range. As the crews became proficient, they were sent over their particular stretch of Rhine on pamphlet-dropping operations, the ultimate role of river-mining not being officially revealed below the Squadron Commanders. It was during this training, in the stage before flights over Germany were attempted, that a number of fatal accidents occurred. The reports on these accidents make it clear that the main reason was nearly always the inexperience of the pilot in instrument-flying, and his consequent lack of skill in night-flying in 'black-out' conditions. The pilots' log-books illustrate this, a typical record being that of a pilot killed on March 31st who had flown 479 hours by day and 17 hours by night (of which only 2 hours 50 minutes since June 1939), with 6 hours solo instrument or cloud-flying experience.

As the accidents mounted sharply during March, the feeling that the battle was most unsuitable for night operations and in particular for low level bombing by night, naturally spread among the pilots. The main criticisms that were offered were:- that there was little view directly ahead on account of exhaust flame: that correct turns while flying by instruments were difficult unless the aircraft was trimmed correctly, and that the trimming controls were awkwardly placed and not lighted: that the nose of the aircraft tended to drop in turns while flying by instruments, and that this tendency could not be corrected by the rudder: that inter-communication arrangements were poor and unreliable: and that the observer's efficiency was strictly limited by his position in the aircraft. It therefore says much for the spirit of the A.A.S.F. that not only was the night training programme persevered with, but that in the end it was extremely successful. The test for the Battles was not, in fact, to come in the form of mining the Rhine, for various factors caused the postponement of this: it came in the form of a switch to night bombing after five days of daylight operations had brought casualties to the force of an order that could not possibly be sustained. The story of this is recounted later * meanwhile it is

A.H.B. file
II H2/380
passim

ibid
(11b)

* May 10th 15th

interesting to note that the night-bombing, when it was adopted, was carried out with far less difficulty than had been anticipated, and that whatever its results on the enemy it occasioned only very slight losses to our aircraft. It is apparent that, had counsels of dismay been listened to during the training period, this later switch to night operations during the active campaign could not have been undertaken, and that in consequence the A.A.S.F. bombers would have been virtually driven from the skies - at least until the growing dispersion of the German fighters and anti-aircraft guns rendered a resumption of daylight operations possible.

Much routine training apart from that mentioned above was of course also carried out, though in general it was severely limited for facilities. There were not enough bombing ranges; the A.A.S.F. fighters had no air to ground firing range, or drogues for air-firing, and there were a host of other difficulties. To these other aspects of training the same eventual significance did not, however, attach as to the night training of the Battles, and it is therefore unnecessary to particularise further in this connection.

Tactical Exercises.

A number of tactical exercises of various kinds were held in the period before the German attack. Perhaps the most profitable of these were three staff and inter-communication exercises held respectively in November, December and April, and designed to try out the system of selecting and transmitting targets. Make-believe in the way of reports, etc., was necessarily entailed, but the communications between the operational headquarters at Chauny and Air Component, A.A.S.F. and Bomber Command could be thoroughly tested. The procedure adopted for the second of these exercises illustrates what was practised: reconnaissance information (imaginary) was passed from Air Component and French sources to Chauny, which also received information based on the result of (imaginary) bombing by the French, by Bomber Command and by the A.A.S.F. This information was plotted and appreciated in the Combined Bureau at Chauny, which then passed bombing targets to the A.A.S.F. The A.A.S.F. in turn exercised its Wings and Squadrons in sub-allotting tasks down to individual pilots, and passed to Bomber Command (for such was then the arrangement before the institution of B.A.F.F. Command) those tasks of which it was incapable. Valuable lessons relating to many aspects emerged in consequence - weakness in communication at this or that point, delay in cypher work, overloading the communication system with too many returns, the undue length of time taken to brief crews and so on. It was perhaps a weakness of the exercises that reliance was placed almost entirely on telephone and teleprinter communications, and that far less attention was given to the emergency wireless telegraphy point to point system, though this of course was exercised independently.

Other exercises of particular value were those in which the A.A.S.F. bombers practised low flying attacks against B.M.F. columns, on occasion protected by Air Component fighters. The length of time necessary for briefing and getting the aircraft off: the obvious nature of some of the attacks, and the lack of evasive action: the general vulnerability to well placed ground-fire: the comparative merits of attacking along the road, or at an angle to it: the complete failure, in the first exercise of this kind, of the wireless-telegraphy air to ground system: the difficulty of inflicting damage on spaced columns: the desirability of operating singly rather than in formation - these were some of the problems which emerged for consideration from the exercises. Unfortunately they were not all susceptible to immediate solution.

XI. OPERATIONS BEFORE THE GERMAN ATTACK.

Bombing Operations.

Before the German attack on May 10th there were no bombing operations in connection with the French campaign. The allied strategy, it has been made clear, was to avoid initiating action which would arouse widespread German retaliation until we were on a stronger basis for both attack and defence. As a general policy there was no dispute about this between the British and French, though the French, having a far less efficient air defence organisation than ourselves, were correspondingly far more frightened of German retaliation. The question of taking action against the German concentration in the West in September and October was indeed discussed, and at one stage General Mouchard actually requested our help in air operations to be linked with the French limited offensive in the Saar region. This help was promised, but in the event the French military operation proved a very damp squib and no bombing activity was undertaken. The view that came to be respected was that urged most strenuously by General Gamelin - that we should invite no German retaliation which would interfere with French concentration. There is no evidence that this was unacceptable to us: indeed it was a natural corollary to the agreed military strategy of an initial defensive phase, until the German attack was held. There was some opposition to this purely passive attitude in various quarters of the Air Force, but not on the level at which policy was decided.

For reasons of their own the Germans, after their initial onslaught against Poland, also refrained from opening any unlimited bombing offensive. During this period there was, of course, action against German naval units by aircraft of Bomber Command, for the purely 'military' character of these was self-evident, and could not be made the basis for an accusation of indiscriminate bombing. The seaplane bases of the Frisian Islands were also attacked by Bomber Command aircraft, for the same reason, while the Germans attacked objectives at Scapa and in the Firth of Forth. It was not until the Norwegian campaign that there was any British bombing action on a wider scale, but this made little difference to general policy, for it was largely confined to minelaying and attacks on German occupied aerodromes in Norway and Denmark. It is indeed true that Norway stimulated a certain restiveness, which had been steadily growing since March among those who debated bombing policy at the Air Ministry: there was an obvious reluctance to accept the constant position of keeping one step behind the Germans, and leaving the enemy the advantage of the initiative in every case. Nevertheless no offensive action was taken against German industrial targets or troops in the West: and the real difference that persisted between the British and the French was not whether wider operations should be opened forthwith, but to what degree wider

operations should be opened when the Germans invaded the Low Countries. The history of this matter is detailed separately, in the discussion of plans for the battle: in the meantime it is sufficient to note that there was no real divergence between British and French on bombing policy except as to that contingency, and that in consequence the A.A.S.F. engaged in no bombing operations before May 10th. Equally, no German bombs fell on French soil during the same period.

Reconnaissance Operations:- (a) A.A.S.F. Reconnaissances and Pamphlet-dropping

Though the A.A.S.F. bombers carried out no bombing before the German attack, they were employed to a limited extent on reconnaissance and pamphlet-dropping operations. The reconnaissance that was instituted soon after the arrival in September, however, was as much designed for the training of the crews in familiarity with their locality as for gathering information about the enemy. It was also supposed to serve the purpose of familiarising the French with the Battles: this, however, was never completely achieved, and from first to last there were incidents in which the allies destroyed each others' aircraft. The first A.A.S.F. reconnaissances were purely local and stopped within three miles of the Franco-German frontier, photographs being taken obliquely, but from September 19th patrols were also ordered in which aircraft penetrated first ten and then twenty miles over the frontier. Good photographs of the Siegfried line were obtained in the closing days of September, the usual force employed being a flight of six Battles, twice daily. The Germans, however, began to maintain special fighter patrols to prevent this activity. On September 20th three aircraft of No. 88 Squadron had already fallen foul of German fighters, though on the French side of the frontier, the unfortunate Battles being first engaged by French anti-aircraft fire and then attacked by three Me. 109s. Two of the Battles were shot down, but they claimed an enemy victim - the first enemy aircraft to be destroyed by French or British since the outbreak of hostilities. On September 30th, however, the full effect of the new German defensive patrol was felt. Near Saarbrücken five Battles of No. 150 Squadron were attacked by fifteen Me. 109s, and four were immediately shot down, though our crews claimed to have destroyed an equal number of the enemy fighters. The fifth Battle was compelled to carry out a crashed-landing in returning to its aerodrome, and was written off. As a result of this it was shortly afterwards decided to abandon the reconnaissance, the more so because it was impossible to supply adequate cover. Some of the reconnaissances had been accompanied by French fighters, but these had not been regular in maintaining rendezvous and the French now announced that they were unable to find further escorts. Equally there were at this date no British fighter squadrons with the A.A.S.F.

/A certain

A certain amount of useful information was obtained from these reconnaissances, but probably the main result of the operations was to bring out more clearly the limitations of the Battle aircraft. Its defencelessness at this stage against attack from below and astern has already been mentioned; and other limitations are well summarised in an extract from the Operations Record Book of No. 74 Wing for September 20th:- "These patrols have established that the observer cannot assist much with the navigation when the A.G. is 'at ready', because there is not room for two people in the rear cockpit of a Battle, and the observer can only see vertically downwards if he remains inside the fuselage. Thus navigation during operational flying must be the responsibility of the pilot. Similarly, oblique photography must be limited; it would clearly be disastrous to remove the gunner from the rear cockpit over enemy territory in order to allow the observer to take hand-held photographs." It was now quite clear, at any rate, that the Battle would be easy game for superior numbers of Me.109s: and it was in consequence of this fact that the instructions for later active operations recommended a low-flying approach to the target. This, as it turned out, was unfortunately to expose the Battle to the full effect of the powerful anti-aircraft fire of the German columns.

After the end of their reconnaissances, in early October, the A.A.S.F. Battles carried out no further operations until they began a combination of reconnaissance, pamphlet-dropping and navigational training in March 1940.

Pamphlet-dropping had, of course, been undertaken from the very outbreak of the war by Bomber Command aircraft, and special arrangements existed by which Whitleys of No. 4 Group might refuel in the A.A.S.F. area, first at Reims Champagne and then at Villeneuve. Pamphlets had also been released from a position near the German frontier by the 'M' Balloon Unit, which relied on favourable wind to carry special free balloons over enemy territory, and which in consequence suffered long periods of inactivity. The A.A.S.F. bombers, however, were not used for pamphlet-dropping operations until March 16th, 1940, and when these were undertaken it was with the primary intention of familiarising the crews with certain stretches of the Rhine. It has been explained that the real object behind this was to fit the crews for subsequent participation in Plan W.A.16, the mining of German inland waterways. A special form of river mine, known as the 'W' bomb, was developed, and the plan might have been put into operation at any time when moonlight and adequate supplies of the most advanced type of 'W' bomb were available. This was not the case in March: and though by April many of the A.A.S.F. crews knew their particular stretch of the river well, the plan was still not applied. The

/reasons

reasons for this lay in the commitments for Bomber Command aircraft necessitated by the Norwegian campaign. The A.A.S.F. would in any case have carried out no more than part of the plan; and there was the additional difficulty that the Battles needed to be specially fitted for the 'W' bombs, some thirty-six hours being necessary to bomb up a complete squadron. It thus came about that the A.A.S.F. acquired their knowledge of the Rhine in vain, though the night-flying entailed stood them in good stead later on. The average force employed in pamphlet-dropping over the towns on the Rhine, Neckar and Main as a preparation and disguise for Plan W.A.16 was in the order of 12 Battles per night during the March moon, and 24-40 per night during the April moon. Two Battles in all were lost from these operations, which besides being valuable flying training, proved a great stimulus to bomber crews 'browned off' with waiting for operational tasks.

Reconnaissance Operations: (b) By the Air Component

The main reconnaissance work of the British Air Forces in France was not, of course, carried out by the A.A.S.F., but by the Air Component. There was no opportunity, however, of exercising the tactical reconnaissance squadrons (the Lysanders) in active operations, for the breadth of Belgium separated them from the enemy, and the neutrality of Belgian air was respected. They were, therefore, confined to exercise work, and to work for the benefit of the B.E.F. such as reporting on the success of camouflage schemes, or taking photo mosaics of Corps areas. One exception was contemplated to this, when at the beginning of May a flight of Lysanders of No.2 Squadron was sent (with twelve Hurricanes of No.87 Squadron) to Senon aerodrome, behind the Maginot line. The idea was that they should undertake tactical reconnaissance on behalf of the 51st Division, which was being moved to attain for experience in active operations. The flight had barely settled in, however, before the imminence of the German attack interfered with the execution of the project. On May 9th the aircraft were ordered back to the Air Component area, but as the German invasion did not eventuate, the order was cancelled - only to be restored the following day when the enemy at last launched their attack.

The general task of strategical reconnaissance in the period before the German attack fell to the French, to the four Blenheim squadrons of the Air Component, and to Bomber Command. The division in principle was that the French should reconnoitre to the South, and the British to the North of a line extending from a point on the German-Dutch frontier at latitude 51°, through Munchen - Gladbach, Düsseldorf, Paderborn, Hildesheim and Ulsen to Lubeck. The British zone thus included, among other areas, almost all the German-Dutch frontier, the Rhine from Düsseldorf to the Dutch frontier, the Ruhr, and the great railway routes leading from the East into the Ruhr: while the French in their zone were responsible

for the German frontiers with Belgium, Luxembourg and France, and what lay behind them. This division was not entirely hard and fast, for the high performance Spitfires of No. 212 Squadron in April carried out special sorties to photograph bridge building over sections of the Rhine within the French zone. Different arrangements were naturally made for reconnaissance during a German attack, and these are detailed in the discussion of plans for the battle.

The Blenheim squadrons of the Air Component provided the staple source of British strategical reconnaissance from French bases. It will be remembered that the original intention was for only two squadrons - Nos. 18 and 57 - to be employed on G.H.Q. strategical reconnaissance. The absence of land operations, however, enabled the other two Blenheim squadrons - Nos. 53 and 59 - to fulfil the same role, though they had originally been cast for the role of night reconnaissance with Corps. The first operations were in fact undertaken by No. 53 Squadron, which was armed with Blenheim IVs. From September 18th - 23rd the Squadron established itself at Plivot, one of the A.A.S.F. aerodromes, and on September 29/30th carried out its first reconnaissance, refuelling at Metz. The task, undertaken by two aircraft, was reconnaissance by night of road and rail movement on the line Hanover - Minden - Hamm - Bremen - Osnabrück - Münster, but the operation was not successful, for bad weather prevented observation, and one of the aircraft crashed in landing at Villeneuve on its return. The task was then altered into day reconnaissance of the same area, and this was carried out by two aircraft of the squadron on October 6th, 7th, and 8th. Clouds and icing interfered with results, and only one of these six sorties could be classed as successful. These duties were then taken over by the official strategical reconnaissance squadrons of No. 70 Wing (Nos. 18 and 57), whose base was in the Air Component area at Roye - Amy, but who refuelled at Metz. Bad weather prevented any sorties for some days, but on October 13th the road-rail movement task was unsuccessfully attempted by two aircraft of No. 57 Squadron, one of the two aircraft being lost, and the other crashing in England. The aircraft of this squadron, and of its companion No. 18, were Blenheim Ia, and the shortness of range was a perpetual worry to the pilots until they were re-equipped with Blenheim IVs during February 1940. One more day - October 16th - was devoted to the Hanover - Osnabrück reconnaissance, this time successfully. The aircraft refuelled at Stain, since the use of Metz had been withdrawn by the French. It was, however, restored by the end of October.

From October 16th onwards a new task was introduced on the request of the French, photographic reconnaissance of the Siegfried line north of Heinsburg. During October this was carried out on two days by a total of six sorties from Nos. 18 and 57 Squadrons.

/Only

Only one of the six sorties was reckoned to be successful, while two of the aircraft were reported missing, and one crashed in returning to its squadron after it had landed near Paris. The remaining sorties in October - 7 in all - were devoted to a continuation of visual reconnaissance of road and rail movement over Germany. This was usually divided into a Northern-section - Münster - Osnabrück - Bremen to latitude 52° 55' - and a Southern section - Hamm - Bielefeld - Minden - Hanover - Hildesheim - Hamm, each undertaken by one aircraft. Most of the aircraft landed in England on return. Four of the seven sorties were reckoned to be successful, and three unsuccessful, and one aircraft was lost.

G.H.Q.
Operation Instruction 18 (AHB.IIIN2/70)
On October 31st a new operation instruction was issued by G.H.Q. which, as amended two days later, gave the following tasks: photographic reconnaissance of certain towns in the area Meppen - Münster - Dortmund - Cleves (information having been received that land forces were concentrating between Düsseldorf - Krefeld and on the Dutch frontier); visual reconnaissance of road and rail movement towards the area along the lines Bielefeld - Hamm - Dortmund, Bielefeld - Münster, and Bielefeld - Osnabrück - Rheine. This replaced the previous road-rail tasks in Germany, but photographic reconnaissance of the Siegfried line was continued. Watch was also kept for bridge-building activity over the Rhine. Aircraft of Squadrons Nos.18 and 57 worked at these tasks, in so far as weather allowed, throughout November and most of December, refuelling at Metz and usually landing in England. Of the 19 sorties altogether flown in these two months, most were devoted to the Siegfried line: ten were reckoned to be successful, nine unsuccessful; and three aircraft were lost.

G.H.Q.
Operation Instruction 24 (AHB.IIIN2/70)
Under the next operation instruction, issued by the G.H.Q. on December 16th, the photographic reconnaissance of the Siegfried line was still retained, but the other area of reconnaissance was altered to Wesel - Münster - Dortmund - Hagen - Düsseldorf - Settard - Cleves. The tasks in relation to this area were to discover whether the German forces were concentrated more strongly North or South of the line Venlo - Mulheim, (and in general whether they were still concentrating on the Dutch frontier or withdrawing eastwards and southwards), and to reconnoitre road and rail movements towards and in the area. The location of enemy air forces was also a task incidental to the main aim, the French High Command particularly wishing to obtain information of certain newly identified aerodromes near Krefeld, Düsseldorf and Munchen - Gladbach. These tasks, together with reconnaissances of the Rhine, occupied Nos.18 and 57 Squadrons during January and February, all sorties being by day, except for one special reconnaissance on the night of January 13/14th for enemy movements. This was ordered on account of the 'flap' of January 13th-15th, when it was feared that the German attack was about to begin. During these two days orders were received for concentration of reconnaissance on Rhine bridges and German troop movements, to the exclusion of the Siegfried line;

/and

and both strategical reconnaissance wings were ordered to occupy their advanced landing grounds. In all, in the first two months of the year, sixteen sorties were flown, of which seven were reckoned to be unsuccessful, and in which three aircraft were lost. A record of the results of the five sorties undertaken during February illustrates some of the difficulties - the first aircraft failed to expose its film, in error: the second took twelve photographs, which were useless on account of thick cloud: the third saw nothing, as the observer was taken ill: the fourth took 90 photographs successfully: the fifth took some photographs, but crashed on landing in England.

In March two innovations were made. For the first time night reconnaissance preponderated over day, five of the seven sorties being by night. In addition, pamphlets were dropped during three of the sorties. Three of the five night sorties were successful, but could find no road or rail movement to report: a fourth was unsuccessful owing to cloud: and a fifth crashed owing to the failure of both engines. The two day sorties carried out successful visual reconnaissance, but took no photographs owing to the failure of their cameras. In April there was a slight increase in sorties, twelve being flown in all, mostly by day. Special attention was given to the Lower Rhine in Germany, but no significant movement or bridging appears to have been seen, though about a dozen new jetties were discovered between Duisburg and Cologne. Of these twelve sorties, not more than three or four could be classed as successful: while one aircraft was lost, one crashed soon after taking off, and one was damaged by French anti-aircraft fire.

At the beginning of May the two Blenheim squadrons of No. 70 Wing were relieved by Squadrons Nos. 53 and 59 of No. 52 Wing. These had carried out no active operations since the reconnaissances by No. 53 Squadron in early October, 1939. No. 59 Squadron had been engaged for the most part in training, since most of its pilots were not qualified by night when it first came out to France, while a flight of No. 53 Squadron was engaged in survey duty of areas in North West France for G.H.Q. The reconnaissance carried out on the night May 1st/2nd by an aircraft of No. 59 Squadron was in fact the first active operation undertaken by this squadron since it arrived in France, and the only one before the German attack. On May 3rd an aircraft of No. 53 Squadron was despatched to reconnoitre by night the area Ruhr Valley - Hamm - Minden - Osnabrück - Münster, but failed to return. On account of bad weather no further reconnaissances were made till the night May 8/9th when one aircraft of No. 53 Squadron took the Ruhr Valley - Hamm route as above, and another reconnoitred movement along the Dutch - German frontier. The first aircraft saw a little movement, but could not see the Ruhr Valley owing to low cloud: the second aircraft failed to see any movement for the same reason. Both aircraft

/encountered

encountered ground fog when they returned to Poix, as a result of which one aircraft crashed, and the observer of the other was killed in attempting to escape by parachute.

On the whole, the results achieved by the four Blenheim squadrons of the Air Component between the outbreak of war and the German attack seem to have been disappointing. About 82 sorties in all were flown, of which about 44 had to be classed as definitely unsuccessful in that weather prevented observation or photography. The remaining sorties for the most part were able to report little of interest. During the operations some 18 aircraft either failed to return or crashed in friendly territory. Weather was, of course, the main enemy, and the freezing of camera-shutters proved by no means easy to overcome. For what information was discovered, the words of the Report on the War Employment of the Air Component may be quoted:- "One of its (i.e. the strategic and photographic reconnaissance of North West Germany) main objects was to discover signs of bridging across the Rhine and of German movement westwards. Despite the persistent efforts that were made by 70 and 52 Wings to this end, and the comparatively high price that was paid in crews and aircraft lost, the reconnaissance may be said to have failed in this object, in as much as nothing of a decisive nature was discovered right up to the last moment."

Reconnaissance Operations: (c) By No. 212 Squadron

Apart from the Blenheim strategic reconnaissance, there were also available from February onwards the special high-flying photographic Spitfires. After a preliminary experiment in 1939,* No. 212 Squadron, an offshoot of the Photographic Development Unit at Heston, with an initial equipment of 6 + 2 specially adapted Spitfires, had been placed directly under B.A.F.F. Headquarters. These could be made available for special tasks as requested by C.H.Q., by G.Q.G. (Air) for General Gamelin, or by General Georges. These aircraft were unquestionably much more successful than the Blenheims, though their use at this date was limited in cloudy weather. Unfortunately there is no detailed record of their operations in France at present available,** and for the time being the subject must be left with a quotation from Air Marshal Barratt's Despatch:- "The first photographs were taken from Spitfires in France in December, 1939, and the possibilities were so apparent and promising that I immediately pressed the Air Ministry for a squadron armed with this, or improved types of aircraft, for photographic reconnaissance. No. 212 Squadron formed on 12th February 1940 for this purpose..... This promise was amply fulfilled. An immense number of extremely valuable

/photographs

(*) See pages 76-77
 ** A reconstruction of the operational history of this unit will be attempted in the A.H.B. narrative on Photographic Reconnaissance.

photographs were taken prior to and during the battle, 10th May - 17th June, both for French G.Q.G., G.H.Q., B.E.F., and my own use. Owing to their speed, height and the evasive tactics they could thus employ, casualties to pilots were extremely light and photographs could be ordered up to 300 or more miles behind the line with the certainty of obtaining them, provided weather conditions permitted."

Reconnaissance Operations: (d) Conclusion.

The assessment of the value of the reconnaissance carried out up to May 9th is a peculiarly difficult task. The B.A.F.F. reconnaissance forces constituted but one part of the story, for in addition there was the reconnaissance carried out by the French and by aircraft-based in Great Britain. Together, these forces in combination secured a great deal of valuable information. Much of this work, however, such as the photography of the Siegfried line, was to prove of no immediate use in the battle as it occurred: and the real question of interest thus becomes - what did our combined reconnaissance forces discover about the strength and direction of the impending German attack? Here again there is a difficulty, for air reconnaissance in itself is but one of many sources of intelligence, which together may combine into a coherent picture, but which in isolation may be misleading or meaningless. From the technical point of view of the value of air reconnaissance in modern warfare it would thus be of interest to secure an appreciation of the work of the reconnaissance forces by themselves: but from the point of view of the general history of the campaign, it is of far more importance to indicate what was known of the German intentions from all sources. This topic is discussed in the following section of the narrative. * Meanwhile, to attempt an estimate of the value of the allied reconnaissance alone on an incomplete series of reports could not be of much value. It may, however, be possible to include later a fuller appreciation of the reconnaissance work in this period.

Fighter Operations: (a) The Air Component.

The fighter operations during the period of static warfare it will be convenient to treat first for the Air Component, and secondly for the A.A.S.F. Administrative aspects and plans for reinforcement are dealt with in Section III: air defence organisation in Section VII and plans for the actual battle in

Part XII

Four Hurricane squadrons originally went out with the Air Component - Nos. 85, 87, 1 and 73. They arrived at Le Havre and Rouen - Boos on September 8th and 9th, and immediately took up the task of covering the disembarkation of the B.E.F., and its move to the assembly area. This duty lasted until September 29th, when the squadrons were re-deployed (at Merville and

/Norrent Fontes)

Norrent Pontes) to cover the B.M.F. concentration area. During this period there were no encounters with German aircraft, and the only incident of note seems to have been when an aircraft of No. 73 Squadron was shot down by French anti-aircraft fire.

Shortly after the move forward, Squadrons Nos. 1 and 73 were detached from the Air Component and moved down to a position in advance of the A.A.S.F. area. From October 9th, the date when this move took place, to November 15th, when two Gladiator squadrons - Nos. 607 and 615 - arrived from England, the Air Component was thus reduced to two fighter squadrons. Again the month was without incident. Thirteen patrols, involving in all 60 aircraft, were flown from Merville or Norrent Pontes, but no enemy aircraft were seen or engaged. On November 2nd, however, the first fight occurred, when a Heinkel 111, one of three enemy aircraft engaged on reconnaissance, was intercepted at 20,000 feet over Merville aerodrome, and shot down by a Hurricane of No. 87 Squadron. Three days later the two squadrons moved forward to Lille-Seclin, where they were very close to the Belgian border. The result was somewhat expensive in Hurricanes, for inside a week, three pilots landed on Belgian soil, having in each case run out of petrol. All three men, however, escaped within a fortnight.

Enemy reconnaissance aircraft, usually operating singly, began to be reported much more frequently at about this time. The entry for November 6th in the Operations Record Book of Air Component Headquarters indicates that at this time these solitary incursions were treated with an exaggerated respect, similar to that which obtained in England before an 'alarm' became an 'alert'.

"November 6th. The usual air raid warning at 1100 hours - with nothing seen. The effect of these air raid warnings is to stop all traffic in N.E. France, and Army and R.A.F. personnel are supposed to get under cover in shelters and cellars. Most of them do and even G.H.Q. goes underground. It is not quite clear why!"

The two Hurricane squadrons at Lille were not situated in the best place to deal with the tactics of those reconnaissance aircraft which, respecting the neutrality of Belgium, usually flew along the Channel and turned inland in the neighbourhood of Boulogne or Abbeville. After the arrival of the two Gladiator squadrons on November 15th, it was, however, possible to maintain flights at the coastal aerodromes of St. Inglevert and Le Touquet, where our fighters were in a better position to intercept. Later a protective patrol for the leave boat was also organised from St. Inglevert. It was claimed that No. 85 Squadron took advantage of the new disposition to the extent of shooting down a He. 111 into the sea near Boulogne on November 21st. There was no further confirmed success during the

/month

month of November, when altogether 163 patrols involving 512 aircraft were flown. Eight enemy aircraft in all were sighted during the month, five intercepted, and two definitely shot down. Not even this degree of incident was reached in December, when 96 patrols involving 199 aircraft were flown by the four squadrons, but only one He.111 was intercepted, and no victims were claimed.

In the opening month of the new year the two Gladiator Squadrons, which had till then been on a wing servicing basis only, were brought up to full squadron establishment, and recognised as a permanent part of the Air Component. No enemy aircraft were intercepted, and the absence of German activity by night was so complete that no British fighters were kept at 'standby' during the hours of darkness. The main enemy, in fact, during both January and February was not the German but the weather. In January some affiliation exercises were carried out with Lysanders, but the only interest of the month was the 'false alarm' of January 13th - 16th, during which period the agreed measures were taken in readiness for the German attack. In February, flying was possible on only four days, and the month saw but 11 patrols, involving 25 aircraft, with no enemy machines intercepted. March brought some improvement in the weather, and 171 patrols involving 310 aircraft were flown, but there were still very few signs of the enemy.

So the days went by up to May 10th, with no enemy activity save occasional high level reconnaissance aircraft. In mid-April following the German assault on Norway, there was a further 'flap', but otherwise nothing eventful. No. 607 Squadron rearmed with Hurricanes, and were followed by No. 615, whose second flight did not proceed to Abbeville for this purpose until May 9th. At the beginning of May twelve aircraft of No. 87 Squadron were transferred with a flight of Lysanders to Senon, for co-operation with the 51st Division in the Maginot Line area, but were hurriedly flown back after the opening of the German attack. Thus it came about that the Air Component fighters were on May 10th flung into the full fury of the battle with virtually no previous experience of the enemy.

Fighter Operations: (b) The A. A. S. F.

The experience of the two squadrons sent down to the A. A. S. F. - Nos. 1 and 73 - was to become considerably more extensive than that of the Air Component squadrons. The difference was accounted for by the fact that whereas the A. A. S. F. squadrons at Vassincourt and Strin-Rouvres were within easy distance of the Franco-German frontier, the Air Component squadrons had neutral territory between them and the enemy. Patrols were flown by the A. A. S. F. squadrons on different lines at different times, but they normally aimed at covering the German approach from the Palatinat. Warnings were passed from the French and from the Southern Wireless Intelligence Screen to No. 67 Wing Headquarters, the control point for the two squadrons, and while enemy

/aircraft

aircraft were not too numerous, this enabled several interceptions to be made.

Until nearly the end of October there were no combats (save with French aircraft), but on October 30th the first victim was claimed - a Do.17 on high reconnaissance intercepted over Vassincourt aerodrome by an aircraft of No.1 Squadron. This was the first aircraft brought down by a British fighter in France. On November 8th No.73 Squadron also drew their first blood with a Do.17, intercepted at about 27,000 feet near Rouvres aerodrome. In the same action one Hurricane was forced down by damage from French A.A. fire, and another landed in Luxembourg, whence the pilot duly escaped. In mid-November the location of the two squadrons with the A.A.S.F. was put on a permanent basis by the formation of No.67 Wing, and before the end of the month the two squadrons enjoyed their biggest day for a long time to come. Several isolated enemy aircraft and one formation appeared in the Verdun-Nancy area on November 23rd and, of these, six (mostly Borniers, and all on high level reconnaissance) were shot down by the two Hurricane squadrons - though two of them were also claimed by French fighters. In the course of these combats two Hurricanes made forced landings and had to be written off - one as a result of colliding with a Morane. The other was forced down by a Bornier pilot whose two companions had jumped. Left alone in the damaged aircraft he shamned dead, throttled back as the Hurricane pilot came alongside, turned behind the Hurricane, climbed into the navigator's seat and sent a trail of bullets into the British machine. For this feat he was subsequently retrieved from French captivity for an evening and dined honourably with No.1 Squadron.

Though standing patrols were maintained on different occasions the next combat did not occur till December 22nd, the day after an unfortunate mishap in which a Hurricane shot down a Potez 63. The interest of this combat lay in the fact that it was the first time Hurricanes and Me.109s met in actual fight, though on November 6th a Hurricane, caught over the German frontier, had eluded several Me.109s, and in fact unwittingly decoyed them into a patrol of French fighters. The combat on December 22nd was, however, hardly a fair test of the merits of the machines. A Hurricane section of No.73 Squadron, on patrol Metz-Longuyon, was directed by R/T towards an unidentified aircraft, and was then told that the aircraft had turned behind the section. As the leader brought his companions round, the section was attacked from above and behind by 4 Me.109s, and two of the three Hurricanes - both manned by inexperienced pilots - were shot down. It is clear that the surviving pilot was completely muddled during the fight as to which aircraft were Hurricanes and which Me.109s, and this led to a call from No.67 Wing for more distinctive markings.

During January and February activity continued at a minimum. On January 25th a Heinkel 111

/was

was intercepted over Etain by three Hurricanes of No. 73 Squadron: frozen guns and a flat accumulator robbed them of a success. It was not till February 22nd that an enemy aircraft was again intercepted, but no decisive result was recorded. These were the sole engagements in the first two months of the year.

The following month began more actively for the two squadrons, with combats on March 2nd and March 3rd. In one of these a formation of seven He. 111s, flying very high, and already engaged by French A.A. was chased by two Hurricanes back to Germany, where the British fighters were promptly attacked by two Me. 109s. Both were damaged, but returned safely while one of the Me. 109s was probably shot down over Germany. Another combat on March 2nd ended disastrously, for of three Hurricane pilots attacking a single Dornier, one was compelled to make a forced landing through propeller trouble, one suffered damage to his engine and was killed in his forced landing, and only the third came down with aircraft intact. On March 3rd a section of No. 1 Squadron was more fortunate in destroying a single He. 111 near Forbach. After this the weather was again a limiting factor. On March 20th patrols were maintained from dawn in expectation of German retaliation for the Bomber Command raid on Sylt, but it was not until March 22nd that any further enemy aircraft were intercepted. The result was inconclusive, but a sentence from a report summarises what had come to be recognised as an essential: "This engagement proves again that the Me. 109 dives faster than the Hurricane and demonstrates the necessity of having constant speed airscrews fitted to A.A.S.F. Hurricanes at the earliest opportunity." A few of the new constant speed Rotol airscrews had in fact arrived, and fortunately it was possible before the German attack to equip most, if not all, of the continental Hurricanes both with these and with another vital item which they had not possessed at the outbreak of war - rear-armor.

By now the weather had again improved: the Germans were operating reconnaissance and fighter patrols over the border in some strength: and on March 26th No. 73 Squadron was more strenuously engaged than at any time since November 23rd. Several fights took place during the course of the day, nearly all between Metz and Luxembourg frontier; in the morning for example, some seven Dorniers escorted above by three Me. 110s (now just beginning to appear) were intercepted, while in the afternoon the engagements were with formations of Me. 109s. One Hurricane was shot down, though the pilot escaped, but the German losses were uncertain. It appears that several of their aircraft were damaged, and probably destroyed, but not more than one success could be confirmed. Perhaps the most gratifying feature was the obvious spirit with which the Hurricane pilots pursued very aggressive tactics

/against

against considerably superior numbers of enemy aircraft. Three days later, on March 29th, an event occurred to which both squadrons had been eagerly looking forward - the destruction of their first Me.110. It was already apparent, as a result of the combat on March 26th, that the Me.110 was faster than the Hurricane, and had a higher ceiling, but was less manoeuvrable; it was then, however, a rare bird, and its qualities were rated somewhat higher than they came to be on greater acquaintance. A section of No.1 Squadron fell in with a formation of nine of the German twin-engined fighters near Bouzonville; in the ensuing dog-fight the Hurricanes found that up to 10,000 feet they could turn easily inside the Me.110, and that the rear-gunner of the German aircraft had the greatest difficulty in bringing his fire to bear on them. One Me.110 was subsequently discovered on the ground, and the three pilots of the Hurricane section (two Officers and a Sergeant), duly received the reward promised by Air Marshal Barratt for the first Me.110 brought down - a dinner with him in Paris.

The more intensive activity noted in the last week of March continued into April. On April 1st three Hurricanes of No.1 Squadron encountered and attacked 9 Me.110s over Thionville, but though three successes were claimed none could be definitely confirmed. The following day the Squadron was engaged with Me.109s. On April 7th No.73 Squadron had its turn, a larger patrol of nine Hurricanes engaging some 20 Me.109s near Metz and destroying at least one. Four days later - April 11th - in the 'flap' following the German invasion of Norway, the scheme* for moving the two squadrons back from their advanced positions to the Reims area was put into effect. No German attack through the Low Countries ensued: on April 16th the high degree of readiness was relaxed; and on April 19th the Wing returned to its advanced position - 67 Wing H.Q., to Bussy la Cote, No.1 Squadron to Vassincourt, No.73 Squadron to Etain-Ravres. The move had some value in that it was an excellent rehearsal for the real thing a few weeks later.

Following the return of No.67 Wing to the frontier zone, renewed combats took place. On April 20th there were combats near Metz in which Hurricanes of No.1 Squadron fought at the now usual odds of two or three to one, while elsewhere a Ju.88 and a Hurricane managed to destroy each other in 'single combat'. The following day there was a morning engagement by No.73 Squadron with 12 Me.109s, and an afternoon encounter with 5 Me.110s and 7 Me.109s, both formations being met while the Hurricanes were on one of the customary patrol lines - Koenigsmacher to Bouzonville. Several successes appear to have been scored. On April 22nd three Hurricanes of No.1 Squadron had the satisfaction of seeing, (as they thought) fifteen Me.109s turn back when the British fighters appeared, but on April 23rd the Me.109s seem to have been more aggressive, and shot down a Hurricane.

/The

The first week in May seems to have brought some lull in the air fighting on the Eastern frontier. Patrols were flown to cover the 51st Division going into the outer defences of the Maginot Line, and Me.109s were sighted, but apparently not engaged. At the end of the week the weather improved, and with the full advent of high spring the Operations Record Book of No.73 Squadron becomes positively lyrical: - "May 7th - - - after six months of a countryside either sodden after protracted rains, shrouded in mists or sere with lifeless vegetation, it is nothing short of miraculous to note the effect of spring even at ROUVRES, with every field green with lush grass and enamelled with nodding cowslips, which are giving place to great swaths of golden daffodils - - - -".

These pastoral meditations were to be somewhat rudely interrupted within a very short time. On May 8th reports of imminent invasion sent the Hurricanes on dawn patrol: on May 9th Readiness No.1 was instituted: and by the early hours of May 10th the German intention was beyond further doubt.

Summary.

For all their limited character, the operations of the 'Sitzkrieg' period gave certain clear indications for the future. In themselves, they achieved little, but they established beyond doubt certain broad lessons, of which it was unfortunately impossible, in the absence of appropriate industrial production, to take immediate advantage. In reconnaissance, the operations of this period clearly indicated the value for the photographic work of the specially adapted fighter, relying on speed and high ceiling for evasion. In bombing, they showed (from the experience of the Battles on reconnaissance, and from Bomber Command Wellingtons in their attacks on the German fleet) that for daylight bombing against an enemy as strong as the Germans, close fighter escort was necessary. This was, in fact, a most unpleasant revelation, for we were hard enough put to it to build up the requisite fighter strength for Air Defence of Great Britain, without having to reckon on the provision of escort for every daylight bombing operation. Here may be found pointers to that eventual concentration on night bombing which was forced on us by the failure of the Battles, Blenheims, Wellingtons and Hampdens to achieve adequate defence against the fighter. Finally, in regard to the fighters themselves, the encounters of our Hurricanes in France with the enemy - overwritten as they were by the press at the time - established clearly that our eight-gun fighter could deal comfortably with the unarmoured German bomber of that date, and, when fitted with a constant speed airscrew, was an excellent match for the Me.109. In numbers, our Hurricanes were, of course, too few: in France the warning system on which they relied was utterly inadequate: but they nevertheless contrived to operate with extraordinary effectiveness when handled by experienced pilots, and this factor at least augured well for the future.

XVII. PLANS FOR THE BATTLEThe Military Plan.

Long before the war it was common ground between the French and British General Staffs that, if a renewed conflict should break out in the west, the most likely German plan of attack on France would be via Luxembourg and the Low Countries, in an effort to turn the Maginot Line. This had been an agreed conclusion at the time of the Anglo-French Staff Conversations,* and nothing which happened between them and May 10th, 1940, caused our military leaders to alter this broad appreciation. Indeed, in spite of the deceptive atmosphere of the 'phony war' period, everything concurred to support this view. The details of German concentration in the west: the reports from secret intelligence sources: the construction of a new motor road from Cologne to Aachen, and of temporary bridges over the Rhine and Moselle at points designed to improve German communications towards Luxembourg and the Belgian Ardennes, all pointed to the one conclusion. It was, indeed, difficult to foretell if a German attack would be launched against the whole of Holland, or merely that part of the country south of the Waal: but that it would be launched through Belgium was, to the French, as near a certainty as any estimate of enemy plans could be. Such opinions as were held to the contrary centred mainly in the British Air Staff: not that they had any other theory of German attack on France, but that they could not be blind to the possibility of a German air assault against England. Towards this end, occupation of Dutch and Belgian bases, rather than the defeat of France, might well constitute the enemy's preliminary plan. In general, however, all military quarters were agreed on the broad direction of the forthcoming German offensive: and a frequent forecast was that the main weight of advance would come through Holland, south of the Waal: through the Maastricht appendix: and, to a lesser degree, through the Ardennes and Luxembourg.

Since the broad German strategy was thus appreciated, the natural preoccupation of the French High Command was to frame plans of campaign capable of halting an enemy offensive through Holland, Belgium and Luxembourg. The detailed development of these plans has been described elsewhere,** and for the purposes of this narrative a few words on the general alternatives, and a more precise description of the plan actually put into effect, will be sufficient.

/The

* See page 23
 ** In the military branch narrative of the B. E. F.

The plan at first favoured by the French High Command, in the event of a German invasion of the Low Countries, was simply to maintain the Franco-Belgian frontier defences, though mobile troops would be pushed forward in advance. During October and November, 1939, this original conception was discarded in favour of an advance into Belgian territory, and the occupation of a suitable defensive line on which to await the oncoming enemy. The main advantages of advancing to forestall the enemy on a line as far east as possible were, first, that Belgian resistance would be thereby sustained; secondly, that the enemy would (it was hoped) be kept from capturing naval and air bases within mortal range of England and the rich industrial regions of Northern France; and thirdly, that the line to be occupied might be considerably shorter than that along the Franco-Belgian frontier. The main disadvantage, of course, lay in the abandonment of prepared fortifications, and the occupation instead of positions imperfectly reconnoitred in the territory of a last-minute ally.

The further east the line to be occupied, the stronger became the force of these advantages and disadvantages. From November onwards two possible plans were worked out in full detail, involving an advance to the Escaut (Plan E) or an advance to the Dyle (Plan D). Later still, as more information was obtained of the Belgian defences, and greater hope was entertained of prolonged Belgian resistance, an advance still further east was considered, to the actual Belgian defence line of the Meuse - Albert Canal. Of these three possible lines, that of the Dyle offered to the French High Command by far the most attractions, for it was shorter than the Escaut line, screened French territory to a greater depth, and offered the prospect of keeping the Belgians in action at our side: at the same time it was less difficult to reach than the Albert Canal line. Thus it came about that the Dyle plan was adopted as the basis for the allied advance: for though the other plans were not cancelled, they were

/kept

kept in actual fact as reserve measures. The situation at the time of the German attack was thus that the allied riposte was decided beforehand - an advance to the Dyle; but that detailed plans existed by which this could, if necessary, be stopped short at the Escaut, while less detailed plans also existed by which, in exceptionally favourable circumstances, the advance could have been carried further forward to the Albert Canal. Plan 'D', however, was the real basis, and it is appropriate that it should therefore be examined in some detail.

The essence of Plan 'D' was that, while the armies of Lorraine and Alsace would stand ready to repulse any attempt on the Maginot Line, the armies of the North would, on a German violation of Belgium, advance to the line Antwerp - Namur - Meuse as rapidly as possible. Five armies were to take part in this movement, which would be smallest at the right, greatest at the left. From right to left these armies ² were given the following roles:-

-
- 2 The Second, Ninth, First and Seventh French Armies constituted the French "First Group of Armies", under General Billotte. The French "Second Group of Armies", under General Prételat, was in the Maginot Line, and comprised the Fifth, Fourth and Third Armies. The French "Third Group of Armies" under General Besson, was in the southernmost stretch of the Maginot Line, and contained the Eighth Army and some smaller formations. Some ten divisions were in general reserve, and there was also an Army H.Q. in reserve (Sixth Army - General Touchon) without troops. Of all these forces, as of the French sea and air forces and land forces elsewhere, General Gamelin was Supreme Commander: but his authority was delegated for all troops on the North and Eastern fronts to General Georges, who was thus in command over Lord Gort. In turn the authority of General Georges was delegated to General Billotte for the First Group of Armies: and during the battle, on May 12th, Lord Gort and King Leopold also accepted the authority of General Billotte, as the representative of General Georges.

- (a) Second Army, under General Huntziger, established between Rochonvillers (near the northern end of the Maginot Line) and Pont à Bar - to move two cavalry divisions forward for a delaying action and then oppose any attempt by the enemy to invade French soil through the southern exits of the Ardennes.
- (b) Ninth Army, under General Corap, established between Pont à Bar and Trelon - to pivot on Mézières, and occupy the line of the Meuse between Mézières and Namur. (The cavalry to move temporarily east of the river, holding up the enemy while the main infantry forces gained the river-line.)
- (c) First Army, under General Blanchard, established between Trelon and Maulde - to advance from the Franco-Belgian frontier, and occupy a line between Namur and Wavre (excl.). The movement to be covered by a cavalry corps of two light mechanised divisions, which would also reinforce Belgian resistance in the area Huy - Tirlemont, in advance of the Dyle.
- (d) The B.E.F., under Lord Gort, established between Maulde and St. Jans - to advance from the Franco - Belgian frontier and occupy the line of the Dyle between Wavre and Louvain.
- (e) Seventh Army, under General Giraud, established between St. Jans and the coast - to advance from the Franco-Belgian frontier and occupy the general area - mouth of the Scheldt - Antwerp - Ghent. If Holland were attacked, the advance of this army might also include occupation of the islands of Walcheren and South Beveland, and of a forward line (Turnhout - Tilburg, or St. Leonard - Brada) by which the mouth of the Scheldt would be protected.

It will be seen that, by this plan, a gap was left between the left of the B.E.F. at Louvain, and the right of the Seventh Army, at Antwerp. This was to be filled not by an advancing French or British army, but by a retreating army - the Belgians. It was hoped that the Belgians would hold out on their forward positions (Meuse - Albert Canal) for some four or five days,

but it was also arranged that a portion of the Belgian army, if forced to withdraw, would retire to the Louvain - Antwerp position, along the Dyle and the Scheldt, in time to link up effectively with the general allied movement. By the time of the German attack, however, the allies were still far from possessing adequate knowledge of the Belgian defensive system, in spite of what had been communicated, and what had been unostentatiously photographed from the air. This applied particularly to the line to be occupied by the First Army, from Namur to Wavre. Here, especially in the region of Gembloux, was open country which might well give the Germans full opportunity to use their preponderance in armour. When the First Army actually advanced during the campaign to this line, it was to find no effective obstacle at all, and the obstacle on the Perwez line, somewhat further east, both incomplete and badly sited.

The French apprehension about the Gembloux sector of the Plan 'D' line had a natural, and, as it proved, fatal effect on the disposition of their forces. Since the First Army was required to execute a rapid advance, and then hold a position poorly defended by nature or by art, it was comparatively liberally endowed (for a French Army) with motorised and armoured units. By contrast and by corollary, the Ninth Army, which was required to advance a much shorter distance, and then occupy a position of enormous natural strength (the Meuse above Namur) was given very little in the way of motor transport, armour, or anti-aircraft defence. In addition, the fact that the Ardennes was a country, in the opinion of the French, unsuitable for the deployment of large armoured forces, and therefore unlikely to be the scene of the major German assault, led to the Ninth Army's being starved of another factor even more essential to a successful resistance - able-bodied troops led by resolute officers.

The Air Plan:

While some elements of the air plan for resisting a German invasion of the Low Countries early took a final form, others, and particularly those connected with the use of the heavy bombers, were slow in clarification. Professional disagreement

/between

between the British and French Air Staffs, and, above all, political factors, were responsible for this delay. It will thus be convenient to dispose first of those elements in the plan on which agreement was comparatively easy to reach - the use of reconnaissance and fighter aircraft - and then discuss the more difficult question of the bombers.

- (a). Reconnaissance: Arrangements for reconnaissance were based on a natural territorial division between the French and the British. Before this is examined, however, it is necessary to examine the general organisation of the French Air Force for reconnaissance. Aircraft for this purpose in the French Air Force were divided into two categories - "Groupes de reconnaissance" and "Groupes d'observation". The former, corresponding to strategical or long-range reconnaissance aircraft, were allotted on a basis of one 'Groupe' to each Bomber 'Division', and one to each land army. The "Groupes d'observation", corresponding to tactical or short-range reconnaissance aircraft, were allotted on a (theoretical) basis of one 'groupe' to each army corps, plus one to each cavalry division. A "Groupe de reconnaissance" had a larger initial equipment than a "Groupe d'observation" - usually seventeen aircraft as against twelve. Each French Army thus had, in theory, seventeen strategical reconnaissance aircraft, and tactical reconnaissance aircraft in accordance with the number of corps and cavalry divisions in the army. The tactical reconnaissance forces were, however, in general well below theoretical establishment.

The British were little concerned with events on the Maginot Line and Rhine fronts, and it is unnecessary to detail the arrangements for the Second Group of Armies, or the corresponding Z. O. A. E. The B. E. F., however, though not officially part of the First Group of Armies, was set in

the middle of, and acted in concert with that Group; and the corresponding air organisation - the Z.O.A.N. - was of course intimately related to B.A.F.F. It is thus necessary to give a broad picture of the reconnaissance plans, not merely for the B.E.F., but for the whole front north of the Maginot Line.

Beginning on the right, the Second Army possessed, delegated from Z.O.A.N. to its own control, one 'groupe de reconnaissance' (apparently only of seven Potez 63) and four 'groupes d'observation' (amounting in fact to about forty Potez, Breguet 270 and Mureaux 115). These were expected to provide strategical and tactical reconnaissance, slightly overlapping the lateral boundaries of the army, not only for the commander of the Second Army, but, on occasion, (as with the other armies) for the Headquarters of the First Group of Armies, and for General d'Astier at Z.O.A.N. To the left of the Second Army, the Ninth Army possessed a 'groupe de reconnaissance' (17 aircraft) and three 'groupes d'observation' (totalling about 22 aircraft); while to the left again the First Army had 8 strategical reconnaissance and about thirty tactical reconnaissance aircraft.

The northern boundary of the First Army aircraft, for reconnaissance purposes, was defined as Maulde - Ath - Enghien - Wavre - Tirlemont - Hasselt - Roermond - Suchteln. East of Suchteln the reconnaissance line was to be extended to Orefeld, Duisberg, and perhaps beyond the Rhine to Hagen and Paderborn: but this distant area would be covered, not by the First Army aircraft, but by the 'groupe de reconnaissance' attached to the 1st Bomber Division at Laon (the well-known "Groupe II/33").

North of the Maulde - Suchteln - Duisberg - Paderborn line, the British took over, up to a boundary with the Seventh Army. This latter boundary, however, was firmly defined only for strategical reconnaissance (along a line Halluin - Audenarde - Ghent - Antwerp - Tilburg - Nijmegen - Arnhem). The more northerly part of this strategical reconnaissance area was outside the zone to be occupied by the B.E.F., and tactical reconnaissance over such a section would naturally be effected by the Belgians, when they fitted into the line, or by the Seventh Army (which controlled about eleven

/strategical

Z.O.A.N.
Op. Inst.
No. 24

R.A.F.
Component
Op. Inst.
No. 7
31/3/40

strategical reconnaissance and thirty-three tactical reconnaissance aircraft).

North of the Seventh Army, the British had a further obligation: for it was arranged that, should flight over Holland be permitted, Bomber Command aircraft from England would take on a strategic reconnaissance zone, the southern boundary of which would be the Lek - Rhine, as far east as Dusseldorf.

Z. O. A. N.
Op. Inst.
No. 24.

The depth to which the French air forces of the First Group of Armies were expected to reconnoitre on the implementation of Plan 'D', was initially the eastern frontiers of Luxembourg, Belgium, and Holland (as far north as Arnhem). Reconnaissance beyond this was to be carried out in the northern areas, as specified above, by Groupe II/33 attached to the Z. O. A. N. bomber force, and by the British. The general tasks assigned to French reconnaissance were, initially, to determine the disposition of the neutrals, and of the invading German forces (and, in particular, whether the enemy strength was greater north or south of the Bonn - Liege line); and subsequently to follow up the situation, by determining the strength, nature and direction of invading columns, and the resistance offered to them by Dutch and Belgian forces. In addition, information was naturally required of the enemy air forces and anti-aircraft defences. To carry out these missions, the French specified that their aircraft should fly either at maximum altitude, or below 100 metres, or under cloud cover; and that if these conditions could not be observed, the reconnaissance must be protected by fighters.

R. A. F.
Component
Op. Instrs.
Nos. 7 & 9

The British reconnaissance arrangements must be outlined in somewhat more detail. The Air Component operation instructions in force at the time of the German attack laid down that the four Blenheim squadrons should be used, under A.C. control, for strategical reconnaissance and special reconnaissance of bombing objectives. The Air Component strategical reconnaissance area went east of the Rhine, as recorded above, but the special reconnaissance for bombing objectives was not to be carried out more than 60 miles east of the heads of enemy columns, with the Rhine (Nijmegen and Duisberg) as the easternmost limit. To facilitate prompt cover of this bombing area. it was divided

horizontally into three strips, # and for each of these No. 70 Wing was to have one Blenheim ready to take off on the first news of the German offensive. In addition, other sorties were to stand ready to take off and obtain vertical photographs of certain points where bombing was particularly likely to be called for. The French had drawn up a map with vertical 'coupures' set across the main possible German lines of advance, and embracing the best points of delay, such as water-lines, bridges, and bottle-necks; and it was intended to obtain photographs of some of these points at successive lines of 'coupure'. Accordingly No. 70 Wing was detailed to have two sorties ready to take off to photograph certain 'sensitive points' along the successive east - west water obstacles of the Rhine, the Meas - Niers, and the Willemsvaart Canal; while No. 52 Wing was to have three sorties ready to photograph sensitive points near the successive lines of the Scheldt - Meas, the Antwerp - Turnhout Canal, the Albert Canal, the Brussels - Boom and Brussels - Charleroi canals, the Dyle, and the Escaut - Dendre (Antwerp to Ath).

In addition to these arrangements for strategical and photographic reconnaissance under G.H.Q. control, two Air Component Blenheims were to be at the disposal of B.A.F.F. Headquarters (North) at Chauny, while high-level photographic tasks could be assigned to No. 212 Squadron, also under B.A.F.F. control. Survey photography was to be carried out by the special flight of No. 53 Squadron, Air Component, in the following priority of tasks -

the Dyle, and the country up to 10 miles in front

the Senna, " " " " " "

the Dendre, " " " " " "

the Escaut, " " " " " "

The general tasks for the British
/strategical

See ~~Air Component Operation Instruction~~
No. 7, and map of reconnaissance areas.

strategical reconnaissance aircraft were to report on the German advance, on the Dutch and Belgian forces, on demolitions, bridges and transportation, and on enemy aerodromes and anti-aircraft fire. Particular attention was to be directed to certain roads (mainly east - west) and their intersecting water-lines (north - south). Reports of columns or concentrations of not less than twenty-five A.F.Vs, a hundred M.T. vehicles, or fifty vehicles in an artillery column were to be sent immediately by wireless from the aircraft to its advanced landing ground (probably Vitry). For these messages B. A. F. F. Headquarters (North) would maintain a listening watch but, to avoid any failure, the reports were also to be telephoned to B. A. F. F. from the advanced landing ground. Telephoned reports were also to be sent to G. H. Q. Since Air Component aircraft would be carrying out strategical reconnaissance north of the B. E. F. area, lateral communication was to be set up with the Seventh Army, whose Headquarters were to maintain a listening watch on any selected Air Component frequency. In addition there was a landline between Seventh Army and Air Component, through G. H. Q.

R. A. F.
Component
Op. Instr.
No. 9

Arrangements for tactical reconnaissance in the Air Component were that No. 50 Wing should assume command of all five Lysander squadrons. No. 13 Squadron was to be employed on duties for I Corps, No. 4 Squadron for II Corps, and No. 2 Squadron for III Corps: while Nos. 16 and 26 Squadrons were to remain in G. H. Q. Reserve. A particular duty of No. 26 Squadron was contact reconnaissance with our own troops. Reports of the progress of our advance were to be sent back by W/T to the control tender at G. H. Q., and communicated to Corps by message-dropping at their Headquarters. In addition, reconnaissances, if possible to include landing and photographs, were to be made of specified Belgian aerodromes, to confirm the information on this subject given us by the Belgians, and to see if they could be used as advanced landing grounds for the Corps Lysander squadrons by the third day of the allied advance.

The reconnaissance arrangements outlined above, in addition to acting as a source of information for the military commanders, were intended to provide Air Marshal Barratt and General d'Astier at Chauny with some part of the broad picture they needed for the conduct of air operations. Many elements in that picture would, it was true, be supplied from other sources, including

/military

military headquarters, the 'Y' service, No. 3 Air Mission, (with its special ground reconnaissance party), and reports from returning bombers. Nevertheless, air reconnaissance was to be a staple source of information: and it is interesting, in the light of later criticisms, to note that for this purpose the B.E.F. was far better equipped, in proportion to its size, than either the French or the Germans. For the B.E.F., the R.A.F. Component provided an initial equipment of 64 Blenheims and 90 Lysanders - a total of 154 reconnaissance aircraft: the greatest number of reconnaissance aircraft boasted by a French Army (equivalent in size to perhaps three quarters of the B.E.F.) was about 50: a German Army managed to get along with 39 ²

- (b) Fighters: The French fighter plan for the contingency of a German invasion of Holland, Belgium and Luxembourg was based on a scheme of reinforcement. By the normal French organisation, each French army had one "groupe" of fighters (usually of about 26 aircraft) allotted to it for defence in its own area. In addition, there were other fighter "groupes" not so allotted, both in Z.O.A.N. and in Z.O.A.E.: and it was arranged that, if the enemy attack took place through Holland, Belgium and Luxembourg, the fighters in the Z.O.A.E. not allotted to armies should reinforce the Z.O.A.N.

The "normal" resources available in the Z.O.A.N. were:-

Groupement No. 21 (H.Q. Chantilly), consisting of five "groupes" not allotted to armies, and based at Chantilly, Buc, Rouen-Boos, Le Havre-Osterville and Beauvais-Tille.

Groupement No. 23 (H.Q. Laon), consisting of three "groupes" allotted to armies (Second Army, based at Suippes: Ninth Army, based at Laon-Chambry: First Army, based at Cambrai-Niergaies): and one groupe and an 'escadrille' not so allotted, both based at Wex-Thuisy.

Groupement No. 25 (H.Q. Aire) - a partly formed 'groupement' consisting of only one 'groupe', allotted to the Seventh Army, and based at Norrent-Fontes.

Groupement de Chasse de Nuit - consisting of four 'groupements mixtes', each of one escadrille, and based for the defence of Paris.

'Co-operation Maritime' - one 'groupe' under the Amiral du Nord, based at Calais.

² plus one Gruppe (30 a/c) allotted to each Group of Armies.

The reinforcement plan outlined above permitted four 'groupes' to move up to Z.O.A.N. from Groupement No. 22 in the Z.O.A.E., and the total fighter forces thus available to Z.O.A.N. on the launching of the German invasion north of the Maginot Line would thus be fifteen and a half 'groupes'² (of which four were allotted to armies, and one to naval co-operation), together with four 'escadrilles' primarily for night fighting. In all, this force amounted to over four hundred and fifteen fighters, or some four-sixths of the French first-line fighting strength.

Z.O.A.N.
General
Inst. No. 24
IIH2/26

The general role of the French fighters during a German invasion of Belgium and Holland was defined as - the protection of the movements of the land armies (with special attention to the needs of the First Army, the Cavalry Corps, and the Seventh Army); the protection of reconnaissance aircraft and day bombers; and the protection of aerodromes, Paris, and the Lower Seine. Which of these roles was to receive priority would depend on the circumstances of the moment. It is interesting to note that, just as the First Army, scheduled to take a large move forward and occupy a dangerous position astride the Gembloux 'gap', was the best equipped of the French armies in armour and transport, so fighter protection was also to be accorded it in priority. No special priority was accorded to the ill-equipped Ninth Army, for whom the difficult Ardennes country, and the wonderful natural position of the Meuse ravine, were apparently deemed adequate protection.

The strength of the British fighter forces in France, and the plans for their reinforcement, have already been examined. ²* It will be recalled that six British fighter squadrons were in France, four being with the Air Component (No. 14 Group) and two with the A.A.S.F. (No. 67 Wing). If the Germans invaded Belgium, and the situation in Great Britain permitted their release, four more squadrons were to fly out from home, two for duty with the Air Component and two for duty with the A.A.S.F.

According to the instructions in force at the time of the German attack, the fighters of No. 14 Group were to accept

/responsibility

² Eleven and a half "normal" Z.O.A.N. 'groupes' and four 'groupes' reinforcing from Z.O.A.E.

²* See pages 51-62

A. H. B. IIR/2a
R. A. F.
Component
Op. Instr.
No. 9

responsibility for the B.E.F. area, extended forward to the frontage to be occupied by the B.E.F. along the Dyle. The rear boundary was to be the Somme (Abbeville - Peronne). Within this area the role of the Air Component fighters was defined as follows:- to "maintain air superiority", to defend important points, such as Headquarters, aerodromes, and lines of communication, to protect the B.E.F. in its advance to the Dyle, and to protect reconnaissance aircraft operating in the British tactical reconnaissance area. The protection of the British military formations, and of the reconnaissance aircraft, was to be secured by offensive patrols in the reconnaissance area, possibly, but not necessarily, coinciding with times of actual reconnaissance sorties, and it was laid down, perhaps somewhat optimistically, that "air superiority will be maintained by the tactically offensive employment of fighters".

B. A. F. F.
Op. Instr.
No. 4

To ensure adequate liaison with French fighters on either side of the B.E.F. area, No. 14 Group was to be in telephonic communication with the Headquarters of Groupement 23, at Laon, and of Groupement No. 25 at Aire. In addition, a liaison section from Groupement No. 25, equipped with W/T, was to be set up at No. 14 Group, for emergency communication with the two Groupements, and for the reception of warnings. Co-operation between No. 14 Group and the fighters operating under the Amiral du Nord was to be facilitated by direct telephone line between No. 14 Group and No. 3 Air Raid Reporting Liaison Section at Dunkirk.

The operational aerodromes for the Air Component fighters were to be, initially, those which they were already occupying, with Lille-Seclin and Vitry as advanced landing grounds. On the third day of the allied advance, however, it was hoped to bring into use one of the Belgian aerodromes - probably Steenhuffel, Denderleeuw or Brussels-Evere, though no firm decision was to be taken until these had been reconnoitred by our Lysanders.

The protection which the Air Component fighters were to afford to the allied advance related purely to the B.E.F.: to the north, however, in the sphere of the Seventh Army, a special plan involving British fighter protection for the French was laid down for the first one or two days of the advance.* Cover over land

11 Op.
Op. Instr.
Nos. 9 & 12

/was

A. H. B.
IIM2/1

No. 11 Grp.
Op. Inst.
No. 11.

A. H. B.
IIM/10/7

was naturally to be supplied by the French (Groupement 25 and the fighters under the Amiral du Nord), but the British accepted responsibility for protecting the advancing army against an attack from seaward. To meet this requirement, patrols were to be flown by four Fighter Command squadrons (Nos. 25, 32, 56 and 600) from Hawkinge, Gravesend and Manston. The Blenheims, at flight strength, were to patrol continuously the line Blankenberg - Breskens (if it was decided that the Seventh Army should cross the Scheldt estuary); the Hurricanes, with their shorter range, were to patrol the coast less far forward, from Middlekerk to Zeebrugge. This was, if possible, to be done six times a day, at squadron strength. The same squadrons were also to be used, in conjunction with Coastal Command Ansons, to protect the naval units detailed to block the harbours of Ostend and Zeebrugge, should that operation be deemed necessary.

The British fighters with the A. A. S. F. were cast for a different role from those in the north. On warning of impending land operations, the two existing squadrons (Nos. 1 and 75) and the Wing Headquarters (No. 67) were to move back from their forward positions to the Reims area, and to assume the task of covering the bombing missions of the A. A. S. F. It was only as a secondary task that, if the bombing operations permitted, they might co-operate in the defence of the A. A. S. F. aerodrome area with the French. The two reinforcing squadrons from England, when they arrived, were, however, to be charged with this latter duty, in co-ordination with the French: though it was also provided that, if circumstances permitted, one of these reinforcing squadrons might be diverted to support of bombing operations.

The method by which protection of the bombers was to be afforded, was not by close escort. Details of routes to be taken by the bombers could not, it was thought, be communicated to the fighters, but the fighters would know the general line east of which bombing might be undertaken, and would assume that bombers would be routed west of this line until in the vicinity of their objective. If the objective were within fighter range, the fighters were to arrive over the objective a few minutes before the bombers were due to attack, and cover their attack and their retirement. If, on the other hand, the objective were beyond fighter range, the fighters were to proceed as far as possible, meet the bombers on their return, and simply cover the retirement. The main aim of the

/fighters

fighters was defined as the destruction of enemy aircraft attempting to interfere with our bombing operations. Perhaps in an endeavour to "have it both ways", it was also laid down that our fighters should attempt, in general, to destroy all enemy fighters met during their missions, though it was "not intended that our fighters should be distracted from their covering role". The range at which the Hurricanes were expected to operate from their bases was up to 100 miles, at which distance it was reckoned that they could remain over an objective for some fifteen or twenty minutes before being compelled to return.

The line along which patrols were to be flown for defence of the A.A.S.F. aerodrome area was defined as Valmy - Vouziers - Wassigny. This line was divided into two at Vouziers; and if standing patrols proved to be necessary, they were to be carried out at a minimum of section strength over both halves of the line. South of Valmy the French were to take over, patrolling a line Ramerupt - Vitry-le-François - Dommartin-sur-Yèvre. Effective co-ordination would be needed between No. 67 Wing and Z.O.A.N. in whose area the A.A.S.F. aerodromes were situated, and between No. 67 Wing and Z.O.A.E., whose aircraft would cover the Ramerupt - Dommartin line. To this end a French liaison officer was to be at No. 67 Wing Headquarters, and telephonic communication was established both from A.A.S.F. Headquarters Fighter Operations Centre and from No. 67 Wing Headquarters to Groupement 23 (Z.O.A.N. - at Laon) and Groupement 22 (Z.O.A.E. - at Velaine-en-Haye).

The scale of fighter effort laid down for both Air Component and A.A.S.F. was that three sorties a day might be expected of each pilot, provided that not more than one sortie was done at high altitude. Such an expectation was the reverse of modest, but in fact, during the opening week of the battle, practice was to exceed expectation in a manner at once magnificent, perilous and inevitable.

- (c) "Medium" bombers. The use to which the British medium bombers of the time - the Battles and Blenheims - were to be put during a German invasion of the Low Countries was settled without undue difficulty: the use to which the "heavies" - the Wellingtons, Witleys and Hampdens - were to be put in the same circumstances, remained a matter of dispute and doubt to

/the

A. H. B.
I IH2/498
(A. A. S. F.
Op. Inst. 11.
Sketch
Map 'A')

the end. It will therefore be convenient first to deal with the medium bombers.

The original pre-war intention of basing the A. A. S. F. in the Reims area was, it will be remembered, primarily to allow the medium bombers that opportunity of striking into Germany which could not be achieved from bases in Great Britain. We had promised, however, at the time of the Anglo-French conversations [#] that during any critical phase of a German invasion of the Low Countries, collaboration with the French Army and Air Force in the land battle would be the "primary commitment" of Bomber Command. We had agreed that some delay might be imposed on advancing German columns by direct air attack on them, particularly at road-rail crossings, and similar 'bottleneck' points: and to this end a map specifying likely bottlenecks along the probable lines of advance had been prepared. Thus, when the war broke out, and the A. A. S. F. went to France it was, in fact, liable to be called on either for a strategical role - attack into Germany, bearing a part in one of the major plans of Bomber Command - or for a tactical role - attack on German columns and traffic violating the Low Countries or the frontiers of France.

This dual function was never lost, for even after the A. A. S. F. was detached from Bomber Command in January 1940, at the time of the creation of B. A. F. F., it was still not to forgo training for participation in a Bomber Command strategical air offensive. For such a role training was to be carried out in accordance with Bomber Command requirements. The Battles, however, were clearly shown, by their experience on reconnaissance flights during September and October 1939, ^{**} to be incapable of penetrating German territory by day, and were not likely to be employed in a strategical role except by night. As late as April, 1940, they were, in fact training to participate in a general Bomber Command plan of mining German inland waterways by night, and by the terms of an operation instruction issued only a month before the German attack, they might be called on to attack industrial objectives by night within the area Cologne, Frankfurt,

/Stuttgart

A. A. S. F.
(p. Inst.
No. 13)

A. A. S. F.
Op. Inst.
No. 9

Stuttgart. The two Blenheim squadrons of the A. A. S. F. were even more liable to participate in a strategical air offensive. These were considered to be capable of operating over Germany under suitable cloud cover, and plans were still current in May, 1940, for them to attack generating stations and coking plants in the Ruhr by day, as well as photographing the result of Bomber Command attacks.

A. A. S. F.
Op. Inst.
No. 3

Nevertheless, although it was sought to preserve the strategical flexibility of the A. A. S. F. in this fashion, it was early recognised that the major role of the formation would probably be collaboration in a land battle. Though the first A. A. S. F. operation instruction on this subject was not issued till November 3rd, 1939, it was intended from the outbreak of hostilities that the Battles of the A. A. S. F. should bear their share in delaying a German advance; and this also applied, though with more reservations, to the Blenheims of Bomber Command (whether they came out to France, as originally intended, or remained in England). The autumn and winter of 1939 saw a great deal of planning devoted to this subject, particular landmarks being the formation of the Allied Central Air Bureau at Chauny, and the institution of B. A. F. F. Command, which greatly simplified the process by which the medium bombers were to play their part in the campaign.

The commitment of the A. A. S. F. to collaboration in resisting a German advance was from the first very clear: that of the Bomber Command Blenheims was at first somewhat less so. On November 4th 1939 Bomber Command wrote to Air Ministry pointing out that the Command instructions and orders for implementing Plans W. A. 5(a) ("Attack on German war industry in the Ruhr, and W. A. 5(b) ("Attack on German war industry in the Rhineland and Saar") were based on the assumption that all the Blenheim squadrons would take part in these operations, whereas the French, and the Head of No. 1 Mission assumed that when the Ruhr plan was put into operation, a certain number of Blenheims would still be available to co-operate in the land battle. Bomber Command accordingly sought to know how far Air Ministry really intended the Blenheims to be committed to collaboration with the French in connection with a land battle, if at the same time it was thought necessary to put the Ruhr plan into operation. No

A. M. file
S. 46368
Part I.
Enc. 30A

/answer

ibid
Enc. 32A

answer was given to this query until December 4th, when a reply was sent in somewhat elastic terms. "If no land battle were being waged at the time that the decision was taken", wrote D. of Plans, "the Blenheim squadrons of No. 2 Group would almost certainly be made available for the (Ruhr) plan in addition to the heavy squadrons. On the other hand, if both Battle and Blenheim squadrons were already committed to the role of support of the land battle, it might be difficult to call off the Blenheim squadrons from the land battle to the main air offensive against the Ruhr. The Air Staff, however, would do their utmost to ensure that the Blenheim squadrons should participate in the main air plan, unless their reversion from their previous role were likely to prejudice the success of land operations." The answer, in other words, depended on circumstances - and Bomber Command was told to prepare plans to cover both contingencies - attack on the Ruhr by the heavies alone, or by the heavies plus the Benheims.

B. A. F. F.
Op. Inst.
No. 7

Bomber
Command.
Op. Inst.
No. 22

L. M. File
S. 2548
Enc. 12A

The formation of B.A.F.F. Command in January 1940, facilitated some clarification of this issue, as of many others. The arrangement arrived at was that if the Germans should attack in the west, A.C.C.-in-C., B.A.F.F., would have at his disposal for bombing operations against the advancing enemy not only the A.A.S.F., but the Benheims of No. 2 Group. If the enemy invasion were confined to France alone - i.e. by an attack on the Maginot Line - six squadrons of No. 2 Group were to go out to France: if the invasion, or some part of it, came through Belgium, the Benheims would operate from England, but under B.A.F.F. control. A geographical division was laid down, in principle, by which the Benheims would take on the more northerly lines of advance, the French those to the centre, and the A.A.S.F. those to the south. The only arrangement on this score that remained unsettled for some time, was the course to be adopted in the unlikely event of the Germans striking at Holland alone, without attacking Belgium or France. From January till April, 1940, it was planned, in such circumstances, and in the absence of military aid to Holland from the Belgians, that the Dutch should be afforded some "token" support by British air attack on the invading Germans: and for this purpose four Blenheim squadrons were to operate under the control of

/A.C.C.-in-C.

ibid
Enc. 36A

A.O.C.-in-C., Bomber Command. During April, however, the situation changed, for the French decided that, if the conditions of the moment were favourable, they were prepared to advance into Belgium to resist a German invasion of Holland, whatever the attitude of the Belgian government might be. In these circumstances, a German invasion of Holland would cease to be an event which could be dealt with in isolation, and would automatically bring into force the full plans for resisting a German offensive in the west. Accordingly it was decided that, even if Holland alone were involved, the Blenheims of No.2 Group would operate, not under the control of Bomber Command, but under that of B.A.F.F., in accordance with the general requirements of the French High Command. Thus the position was clear for all contingencies of German invasion - if attacking France alone, the enemy columns would be bombed by the A.A.S.F. and six Blenheim squadrons of No.2 Group transferred to France; if attacking Holland or Belgium, either separately or together, the enemy columns would be bombed by the A.A.S.F. from France and by No.2 Group from England, acting under B.A.F.F. control.

The fact that all the British medium bombers were clearly committed to "collaboration" with the armies in the event of a land battle was, of course, satisfactory (so far as it went) to the French, and to B.A.F.F., which was responsible for the operation of the "collaboration" plan. It accorded less well with the fundamental opinions of the Air Staff, for whom "collaboration" was in truth something of the nature of an evil necessity-a policy dictated by the paramount obligation of assisting, as far as possible, in delaying a German advance and enabling our forces to take up their forward positions, but not a policy which, with the given size of our striking force, we could embrace in the full confidence of achieving great results at little cost.

If this was felt in the Air Ministry, it was felt even more strongly at High Wycombe: and two days before the German attack the A.O.C.-in-C. Bomber Command (Air Marshal Sir Charles Portal) voiced his misgivings in the most striking terms. "I am convinced", wrote the A.O.C.-in-C. to C.A.S., that the proposed employment of these units (the Blenheims of No.2 Group) is fundamentally unsound, and that if it is persisted in it is likely to have disastrous consequences on the future of the war in the air..... at the enemy's chosen moment for the advance the area concerned will be literally swarming with enemy fighters, and we shall be lucky if we see again as many as half the aircraft we send out each time. I am

/not

file
B.C.S. 21939
also
D.D.B. Ops
folder
Employment
of Air
Striking
Force,
Enc. 56

not in a position to judge the effectiveness of the action that could be taken by those Blenheims that succeeded in evading enemy fighters and delivering their attacks, but I can say with certainty that really accurate bombing under the conditions I visualise is not to be expected, and I feel justified in expressing serious doubt whether the attacks of fifty Blenheims, based on information necessarily some hours out of date, are likely to make as much difference to the ultimate course of the war as to justify the losses that I expect them to sustain." The Blenheims, the A.O.C.-in-C. urged, should be used for harassing attack on German industrial targets by day under suitable cloud cover: and he concluded by expressing his conviction that a serious mistake in policy had been made, "which ought to be rectified before it becomes too late to avoid the consequences".

The letter quoted above is a remarkable instance of a commander's objection on the very eve of a battle to a use proposed for his force. The objection, however, was a private communication to the C.A.S.; and it is therefore, for all its striking terms, perhaps less remarkable than the corresponding fears evidenced in the actual Bomber Command and B.A.F.F. instructions on "collaboration". These acknowledged doubts on the proposed employment of our medium bombers in a common or only slightly varying formula:- "bomber aircraft have proved extremely useful in support of an advancing army, especially against weak anti-aircraft resistance, but it is not clear that a bomber force used against an advancing army, well supported by all forms of anti-aircraft defence and a large force of fighter aircraft, will be economically effective". Such a statement was certainly no less than the truth, and it illustrates clearly, in conjunction with Air Marshal Portal's letter, how untried was the employment proposed for our medium bombers, and how ill it accorded with some views on the best use for our small striking force.

Since the medium bombers were in fact, despite misgivings, committed to "collaboration", it is interesting to see what methods were recommended to

/ensure

B.A.F.F.
Op. Inst.
No. 7

and

B.C.
Op. Inst.
No. 29

A. A. S. F.
Op. Inst.
No. 7
and
Bomber
Command
Tactical
Memorandum
No. 8

ensure the execution of their task. For attacks on columns, (to be delivered, of course, by day) the Battles were normally to carry four 250 lb G.P. bombs, fused 11 seconds delay, and the Blenheims a mixed load of two 250 lb G.P. bombs, fused delay action, plus 20 lb or 40 lb. bombs. The recommended tactics for using 250 lb bombs fused 11 seconds delay were that the aircraft should carry out a low approach in formation, break formation at the last moment, and deliver low attacks singly, at about 30 second intervals, re-forming as soon as possible afterwards. The 'bounce of the bomb' was recognized to incorporate a very uncertain factor in the attacks, which were to be made along the line of the road, or at a slight angle to it. Bombing from much above 1,000 feet was, in general, considered unlikely to ensure sufficient accuracy, and the Blenheims, with their mixed load, were expected to attack from about this height, which would just avoid danger to the aircraft from blast if fusing were instantaneous. The Battles were expected to go in really low - at 50 feet or so - and the ricochet disadvantage of the 11 seconds delay action fusing was accepted simply in order to make low attack possible. These instructions were not hard and fast, and room was left for variation both in bomb load and tactics, but in general they represent the recommended course of action. The columns were, as mentioned before, to be attacked at likely bottle-necks; and, in principle, bombing attacks were not to be ordered against a concentration or column of less than 25 A.F.V's, 50 artillery vehicles, 100 M.T. vehicles, or else a persistent movement along an important artery.

Z. O. A. N.
General
Instruction
No. 24 and
Special
Instruction
No. 26

B. A. F. F.
Operation
Inst. No. 7

The efforts of the seventeen British squadrons of medium bombers were to be supplemented by those of the French. All-told, the French boasted not more than 150 modern bomber aircraft, all of which could be concentrated for action under the First Air Division, Z. O. A. N. Their role was defined as the support of land operations primarily to the north, and secondarily to the south, of a line Aachen - Namur. By night they might operate anywhere between a line Scheldt estuary - Krefeld in the north, and the Z. O. A. N. boundary in the south; by day limits were also defined, the French being responsible for a zone between the areas to be covered by Bomber Command and the A. A. S. F., but it was recognised that these were boundaries only in principle, liable to be abandoned in

/the

the interests of concentration of bombardment. In the event of a German invasion of the Low Countries, the higher operational control of the French bombers would be exercised from Chauny, where General d'Astier and Air Marshal Barratt, working in adjoining headquarters, would have every opportunity to co-ordinate air action in accordance with the demands of the military situation. Among their duties, as the military situation developed, would be the issuing of a 'bomb-line' to specify the general limits east of which British and French aircraft could attack without endangering the allied ground forces.

- (d) "Heavy" bombers: The most vexed subject of controversy between the British and French in air matters, after the question of fighter reinforcement, proved to be the employment of the "heavy" bombers of the time - the Wellingtons, Witleys and Hampdens of Bomber Command. The arguments exchanged on this topic became almost threadbare by repetition, and it is unnecessary to record in full the proceedings of debates and conferences which covered the same ground so frequently, or which led only to conclusions of the most inconclusive nature. Broadly speaking, it can be said that during the period September 1939 to April 1940, a single "Air Staff" view was consistently put forward on this matter, but a view which increased in coherence and confidence with the passage of the months. Equally the French, though at times they made concessions to this view, never at heart abandoned an opposite conviction.

The view which the British Air Staff urged with such consistency, was that, in the event of a German invasion of the Low Countries, the heavy bombers should be largely directed against objectives in the Ruhr. There was some development of thought on this subject, but certain arguments remained constant. The heavy bombers, it was pointed out, were not suited to attack in close proximity to the battlefield. The moment of German violation of the Low Countries would, it was urged, constitute the ideal moment to begin the assault on the Ruhr, since direct flight across Holland and Belgium would become possible, and since advantage should be taken of what interval would elapse before a German air defence system was

/extended

extended to the conquered territories. Moreover, it was considered that such attacks, in addition to their long-term effects, would impose a double and immediate hindrance on the German armies moving into the Low Countries - partly by damaging their rear communications, and partly by compelling the enemy to hold back strong fighter and anti-aircraft defences for the protection of the Fatherland, thereby robbing his advancing armies of some of the means to withstand the attacks of our medium bombers. These arguments held good whether the favourite project at the moment was a general assault on the industry and communications of the Ruhr, or, as it later became, an assault in particular directed against the oil industry.

It was quite apparent that the French, whose viewpoint was naturally coloured by the fact that they had large armies but an insignificant number of bombers, had no effective and reasoned body of air doctrine to oppose to these arguments. Nevertheless, they remained obstinately unconvinced on one point - whatever the merits of bombing Germany at some moments they entirely doubted whether the correct moment to begin this was at the initiation of a great land struggle. In general, they clearly wanted the "heavies" to intervene nearer to the armies in conflict, and they disagreed that attack on the Ruhr would contribute in any sense to imposing an immediate delay on the enemy - which, they insisted, was the vital consideration. This argument of the French was the more powerfully reinforced by an apprehension, sometimes expressed, sometimes latent, but never absent, an apprehension which undoubtedly conditioned all their thinking. This was, in brief, an extreme fear of retaliation by the Luftwaffe, and in truth the inadequacies of the French air defence system gave them not a little justification for seeking to avoid German air attack. It was equally no part of British air policy, on grounds of expediency, deliberately to incur German retaliation until the scales were tipped more in our favour, but we were not wilfully blind, as the French tended to be, to the general extension of air action that would almost automatically accompany a German land offensive in the west.

A few of the more important landmarks in the story of this controversy between the British and the French should, perhaps, be mentioned. The question of attack on the Ruhr came to the fore between the two governments in the latter part of October 1939. In an official memorandum the British pointed out to the French that 60% of Germany's vital industry was concentrated in the Ruhr, the heart of which was about the size of Greater London, and the population of which might be expected to crack under intensive air attack. They accordingly suggested that if the Germans should "either undertake intensive and indiscriminate air action against France or ourselves, or alternatively, if they were to attack France through Belgium and cause considerable civilian casualties in the process of violating the latter, it would be a matter for immediate discussion by the War Cabinet whether we should attack the Ruhr as our first and chief objective. In the latter alternative this attack would be combined with action against any formidable military targets presented by the German advance". Our policy, in other words, if the Germans invaded the Low Countries and caused many civilian deaths, would be - the medium bombers against the enemy columns, the heavy bombers against the Ruhr. This suggestion was communicated to General Gamelin on October 23rd by Air Vice-Marshal Ewitt, and discussed at a meeting the following day, at which others, including General Vuillemin, were also present. Both General Gamelin and General Vuillemin showed themselves particularly unfavourable to the Ruhr project, on the double score of the vulnerability of French factories to reprisals, and a general disbelief in its effectiveness in delaying the German armies: the project might, however, in General Gamelin's opinion, be more acceptable in the Spring of 1940, when the allied air position should have improved. Following the meeting, General Gamelin then sent back an official communication, summarising the French argument, and urging that two plans should be prepared for the moment of German violation of the Low Countries - the first, for attack of "strictly military objectives, troops, lines of communications, aerodromes", to be put into operation directly by the Command; the second, for "the heavy bombardment of the Ruhr", the execution of which "would be subordinated to the decision of our governments".

This proposal of General Gamelin's

/aid

A.P.(39)
118
Annex I.

S.46368
Part I.
Enc. 19a.

ibid
Enc. 20A
(also
A.P.(39)118
Annex II)

C. O. S. (39) 115

also

W. P. (39) 118

did not commend itself to the British Chiefs of Staff, who not only adhered to their original suggestion, but produced a much stronger memorandum to the same effect. The Ruhr plan, maintained the Chiefs of Staff, "if successful, should not only bring industry in the Ruhr practically to a standstill, but would also cause great confusion and dislocation in a very important sector of the lines of communication of the enemy armies invading Belgium". The bombing of the Ruhr, moreover, at the moment of a German invasion, would be particularly justified "as a retaliation for a completely unwarranted violation of the neutrality of a small nation. If the Ruhr were not bombed at that particular moment, so reasonable a justification might never recur". The Chiefs of Staff now urged on the War Cabinet, what had always been the Air Staff view, that a decision to bomb the Ruhr should not await the process of counting civilian casualties in Belgium and then conferring with the French, but should be susceptible to instantaneous implementation. Accordingly, they concluded, "we hold the view that to bomb the Ruhr in the circumstances under consideration is fully justified by the action which the German Air Force took in Poland, when they attacked factories, power stations, railway communications, etc. etc. The only reason that we refrained at that time from taking similar action against comparable German objectives was that of military expediency. We submit, moreover, that an entirely unjustifiable attack by Germany on a small state whose neutrality they are pledged to uphold would be sufficient justification for our attacking the Ruhr, irrespective of whether irrefutable evidence were available of their having caused civilian casualties. In these circumstances we ask for discretion to bomb specified military objectives in the Ruhr immediately Belgium is invaded, without further reference to the War Cabinet".

The policy propounded by the Chiefs of Staff was then officially brought before the Supreme War Council at its third meeting on November 17th, 1939. The Supreme War Council, however, preferred to accept General Gamelin's view, and resolved that "in the event of a German invasion of Belgium in the next few months,

/air

S. W. C.

3rd meeting

air attack should be confined to military objectives in the strictest sense of the term - i.e. troops, military lines of communication, aerodromes, etc." The heavy bomber force was only to attack the Ruhr, if the Germans should themselves have attacked factories and similar objectives in France or Great Britain. The effect of this decision was that, though the Air Staff could continue to prepare plans for attack on Germany, there was no agreed employment for the heavies to be put into effect on an invasion of the Low Countries: for the Chiefs of Staff were convinced that to use them in the same way as the mediums - i.e. in the forward areas of the land battle would be "grossly uneconomical".

W.P.(39) 118
para. 10

S.W.C.
6th Meeting

No further developments of moment occurred to alter this situation until the Spring of 1940. At the sixth meeting of the Supreme War Council on March 28th. it was decided that, if Germany invaded Belgium, the Allies would advance into Belgium without necessarily waiting for a formal invitation to do so: and that they would be equally entitled to advance into Belgium if Holland alone were attacked. In the light of these decisions, the British Chiefs of Staff re-examined the question of air attack on the Ruhr, and the War Cabinet, on April 12th, approved their recommendations to this extent, that "if Germany invaded Holland, or Belgium, or both, the Allied air forces, without further reference to their Governments, should immediately attack military objectives in Germany, such as troop concentrations, marshalling yards, communications, and oil refineries". After the first response of the French to this project, communicated through diplomatic channels, had proved unsatisfactory, two days later, on April 14th, A.O.C.-in-C., B.A.F.F. was instructed to approach the French, and endeavour to concert an agreed plan with them on the basis approved by the War Cabinet.

W.M.(40)
90
Minute 2(4)

W.M.(40)
90, 7

The efforts of Air Marshal Barratt to convert the French to the British thesis were by no means a novelty for him, for as Head of No.1 Mission prior to the formation of B.A.F.F., he had repeatedly but unsuccessfully pressed

/the

S.46368
Part I
Enc.49a

the British view on General Vuillemin. He visited Generals Gamelin and Georges on April 14th, and attended a session of the Comité de Guerre (military members) the following day. In these meetings the Air Marshal repeated the usual arguments, and outlined the following British bombardment plan in the event of a German invasion of the Low Countries:-

- (a) The medium bombers to be employed against the German advance, as agreed beforehand.
- (b) A small proportion of the heavy bombers to be employed at night against the concentration areas and communications in Germany west of the Rhine (a recent British decision, to implement which General Georges had already agreed with Air Marshal Barratt on the best objectives).
- (c) The balance of the heavy bombers to attack marshalling yards and oil refineries in the Ruhr.

Tels. No. 79
to Paris
(12th April)
and 116
from Paris
(13th April)

In reply to Air Marshal Barratt's representations, General Gamelin explained that the Comité de Guerre had already met (on April 13th) to consider the British proposals, after their reception through diplomatic channels. The Comité de Guerre had given, said General Gamelin, their general approval to the idea of avoiding reference to the governments before air action was initiated, but with the following reservations - that the two Commands should agree as to the nature of the objectives and their military importance in relation to the operations envisaged, and that it was not in the French interest to initiate attacks on factories or other objectives affecting the civilian population. Air Marshall Barratt found it impossible to shake General Gamelin from his endorsement of the Comité's decision, which, in spite of its apparent concession, in fact by its reservations made no advance at all towards the British viewpoint. Moreover, General Gamelin showed himself opposed, not only to the Ruhr project, but to the proposed limited attack on communications and concentrations in Germany west of the Rhine, even though General Georges had helped to select the objectives.

This reply of the French by no means satisfied the British Air Staff, who since the German invasion of Denmark and Norway were determined that next time, for once, the enemy should not possess a monopoly of the initiative. A new memorandum was

/prepared

S. W. C.
8th meeting
(2nd Session
April 23rd
1940)

prepared by the Chief of Air Staff, approved by the Chiefs of Staff and the War Cabinet, and then used as a British brief at the eighth meeting of the Supreme War Council on April 22nd-23rd. This time the French were, against their innermost convictions, overborne, and at last our ally agreed that "in the event of a German aggression against Holland, or against Belgium, or against both these countries, the British Air Force should be authorised, without further consultation between either the Allied Governments or the Allied High Commands, immediately to attack marshalling yards and oil refineries in the Ruhr". The effect of this decision was that, if the Germans invaded the Low Countries, the mediums would attack the advancing German columns, a limited proportion of the heavies would attack concentrations and communications in Germany west of the Rhine, and the main force of the heavies would carry out the assault on marshalling yards and oil refineries in the Ruhr.

The governments were now officially in agreement that no further reference was necessary to them jointly before the approved air action was carried out, should the Germans invade the Low Countries. Nevertheless, the Royal Air Force still possessed far from a free hand to implement its plans. The executive authority of the French High Command was still necessary before the medium bombers could attack the enemy columns; and the executive authority of the British War Cabinet was necessary before the heavies could bomb any objectives in Germany, either west or east of the Rhine. All the same, the plans were now at least agreed, and the procedure clear, and it became possible for Air Ministry to issue a coherent directive to Bomber Command on the situation. The essence of this was that, if the Germans invaded either Belgium or Holland, B.A.F.F. would control not only the operations of the medium bombers by day against enemy columns, but also the operations of two squadrons of Whitleys by night against the concentration areas and communications in Germany west of the Rhine, while Bomber Command would attack marshalling yards and oil plants in the Ruhr "in order to cause the maximum dislocation of the lines of communication of a German advance through the Low Countries". The forces available to Bomber Command for this purpose would be Nos. 3, 4 and 5 Groups (less the two squadrons of Whitleys allotted to B.A.F.F.). Attacks were to be delivered by night (though the possibility of dusk and dawn action was not excluded), and the principal weight was to be directed against the oil objectives. Attack on the marshalling yards was to be

S.46368
Part I
Encls. 47a
and 50a

/continued

Amber
Command
Op. Inst.
No. 32

confined to harassing action, the object being to secure the extinction of the lights necessary for the working of the yards. Self-illuminating targets, such as coke-ovens, were to be attacked if it proved impossible to identify the oil plants. The plan for this variant of attack on Germany was to be known as W.A.4(c).

The way had now, it seemed, been made clear for attack by the heavies on the Ruhr if the Germans invaded the Low Countries. So controversial a subject, however, was not to be dismissed without further complications. Though the French objections were, for the moment, disposed of, other supervened. The War Cabinet was naturally impressed with the desirability of confining air attack to a narrow definition of military objectives, at least until they had himself acted otherwise in the past. Though joint consultation with the French was no longer necessary, the War Cabinet, as indicated above, had reserved to itself the selection of the moment for attacking Germany with the heavy bombers. On May 8th the position was further defined, when the War Cabinet reached a decision that, "in the event of a German invasion of Holland or Belgium, the Royal Air Force should have authority to attack German marshalling yards, without further reference to the War Cabinet". This authority, however, was not to extend to "oil refineries, or coking or power plants in the Ruhr". The decision was by no means acceptable to the Air Staff who had repeatedly stressed the desirability of starting intensive action against the Ruhr at the very outset of a German invasion, and who had thought that all obstacles to their policy had been removed by the agreement with the French. Nor did the Air Staff consider that their policy would, in fact, initiate disregard of civilian suffering, for a German advance into the Low Countries was scarcely likely to be achieved without impinging on the life, liberty and possessions of Belgian and Dutch civilians. They also considered that the risks of German retaliation would be no greater if we attacked all targets than if we confined air action to marshalling yards.

It was thus extremely probable, as a result of the War Cabinet decision, that some delay would occur between the opening of a German land offensive, and a decision on our part to take air action against German industry. Whatever delay was likely to arise through the necessity of reference to the War Cabinet was, however, bound to be increased tenfold if the military advisers of the government were not, in fact, united in the conviction that to bomb the Ruhr on the invasion of the Low Countries was, in truth, the best policy. It was therefore very alarming, from the Air Staff point of view, to find, at this precise juncture, that the General Staff had now gone over to the thesis

/from

W.M. (4)
115th Concls.
Minute 6

G.O.S. (46)
533

from which the French had been so reluctantly weaned. A paper prepared by the C.A.S. as a basis for discussion by the Chiefs of Staff on May 9th, the day before the German attack, strenuously contested the view now put forward by the General Staff that the heavies should attack, not the Ruhr, but the advancing German columns. "The C.I.G.S. in the past", observed C.A.S., "has taken the line that attack on the Ruhr would be the most effective method of interfering with the invasion of the Low Countries. He has, in fact, gone so far as to say that it might well bring such an invasion to a standstill - a claim which the Air Staff have never made. It is now apparent that the General Staff have reversed their previous attitude. They now claim that the attack on the Ruhr would be a dispersal of effort, and would not contribute to the success of the land battle. They wish the whole effort of our bomber force, including the heavies, to be directed against the advancing columns and road and rail bottlenecks west of the Rhine; and have even gone so far as to suggest that they rely upon the Air Force to be the principal means of stopping the advance of the invader". The General Staff proposal for the use of the heavy bombers was, in C.A.S.'s view, "totally unsound and grossly uneconomical". Only in a really desperate situation, such as might justify acceptance of the risk of obliterating an entire striking force, could such a policy be accepted; and the Air Staff view was recapitulated in these words - "If they (the Air Staff) believed that to throw in the whole of the bomber force at once to attack these purely 'military' objectives would mean the difference between victory and defeat in the Low Countries, they would not hesitate to do so. So far, however, from being convinced of this, they are certain that to employ the heavy bomber force in this role - except in the last resort in a critical situation comparable to that of March, 1918 - would not only be ineffective, but disastrous; and they feel very serious doubts on the wisdom of using even the Blenheim squadrons in this way - at least until the armies get contact."

The stage reached in this Miltonic debate by the time of the German attack, was thus that the Air Ministry could, in the event of a German offensive in the west, order attacks by the two squadrons of heavies, under B.A.F. control, against communications and concentration areas in Germany west of the Rhine, without further reference to the War Cabinet. Equally the marshalling yards east of the Rhine could have been attacked. For the implementation of the main part of the Air Staff plan for the use of the heavies,

however,

- 2 A preference for "battlefield bombing" in all circumstances and at all costs was, of course, the standard Army attitude and the surprising thing is not that it should have been revived in May 1940, but that the C.I.G.S. should ever have embraced the Ruhr project at all. For some possible origins of the C.I.G.S.'s change of mind, see *file* *enclosure*

however, - the attack on oil refineries in the Ruhr - they had to secure the War Cabinet's executive authority. The War Cabinet would give (or withhold) its approval in the light of the circumstances of the moment; and the desire to avoid casualties to German civilians, coupled with the recent opposition of the General Staff to the whole conception of bombing so far behind the front lines, made it highly likely that this approval would not, in fact, be given at the moment desired by the Air Staff - the very outset of the German offensive.

TOP SECRET

R.A.F. NARRATIVE

THE CAMPAIGN IN FRANCE AND THE
LOW COUNTRIES

PART III

FROM THE GERMAN ATTACK TO THE
DUNKIRK EVACUATION

(FIRST DRAFT)

Prepared by
Air Historical Branch (1)
Air Ministry.

R.A.F. NARRATIVE
THE CAMPAIGN
IN FRANCE AND THE LOW COUNTRIES

	Pages
PART III. <u>FROM THE GERMAN ATTACK TO THE DUNKIRK EVACUATION</u>	186 - 349
<u>May 10th</u>	186 - 195
Military Summary	186
The opening moves	186
Reconnaissance	188
Bombing Operations:	
(a) Waalhaven and Ypenburg aerodromes; The Hague objectives	189
(b) Luxemburg	190
(c) By night: Waalhaven aerodrome and communications in Germany west of the Rhine	192
Fighter Operations and Reinforcement:	
(a) Fighter Command	192
Fighter Operations:	
(b) The A.A.S.F.	193
(c) R.A.F. Component	193
<u>May 11th</u>	196 - 200
Military Summary	196
Reconnaissance	196
Bombing Operations:	
(a) Near Maastricht	197
(b) Near Prum	197
(c) By Night: Munchen Gladbach	198
Fighter Operations:	
(a) Fighter Command	198
(b) R.A.F. Component	199
(c) The A.A.S.F.	199
(d) Summary	200
German Air Attack	200
<u>May 12th</u>	201 - 210
Military Summary	201
Reconnaissance	202
Bombing Operations:	
(a) Near Maastricht	203
(b) In the Ardennes	206
(c) By night: German communications west of the Rhine; Waalhaven aerodrome	207
Fighter operations and Reinforcement:	
(a) Coastal and Fighter Commands	207
Fighter Operations:	
(b) R.A.F. Component: Operations and Reinforcement	208
(c) The A.A.S.F.	209
German Air Attack	210
<u>May 13th</u>	211 - 216
Military Summary	211
Reconnaissance	212
Bombing Operations:	
(a) Near Breda	213
(b) By night: Communications in Germany west of the Rhine and in Holland	213

May 13th (Contd.)

Pages

Fighter Operations and Reinforcement:	
(a) Fighter Command	214
(b) R.A.F. Component	214
Fighter Operations:	
(c) The A.A.S.F.	215
German Air Attack	215

May 14th

217 - 228

Military Summary	217
Reconnaissance	218
Bombing Operations:	
(a) Near Breda	219
(b) Near Sedan	219
(c) By night: Communications in Germany west of the Rhine and in Holland	225
Fighter Operations:	
(a) Fighter Command	226
(b) R.A.F. Component	226
(c) The A.A.S.F.	227
German Air Attack	227

May 15th

229 - 241

Military Summary	229
Reconnaissance	231
Bombing Operations:-	
(a) Dinant and Monthermé	231
(b) By night: Dinant, Monthermé etc.	232
(c) By night: Marshalling yards and industrial objectives in Germany. (War Cabinet deliberations May 10th to 15th: Operations May 15/16th)	233
Fighter Operations and Reinforcement:	
(a) Fighter Command	236
(b) R.A.F. Component	238
(c) The A.A.S.F.	238
Preparations for the retirement of the A.A.S.F.	239
German Air Attack	241

May 16th

242 - 251

Military Summary	242
Reconnaissance	243
Bombing Operations:	
(a) Monthermé	244
(b) By night: Maastricht, Aachen, Munich Gladbach	244
(c) By night: German industrial targets	244
Fighter Reinforcement	245
Fighter Operations:	
(a) Fighter Command	246
(b) R.A.F. Component	246
(c) The A.A.S.F.	247
Retirement of North B.A.F.F: H.Q. and the A.A.S.F.	247

May 17th

	<u>Pages</u>
<u>May 17th</u>	252 - 263
Military Summary	252
Reconnaissance	253
Bombing Operations:	
(a) Gembloux, Le Cateau	254
(b) By night: communications on and near the Meuse	256
(c) By night: railways and industrial targets in Germany	257
Fighter Operations:	
(a) Fighter Command	257
(b) R.A.F. Component	258
(c) The A.A.S.F.	259
Preparations for retirement of the R.A.F. Component	260
Retirement and organisation of the A.A.S.F. May 17 to 19	260
Commentary on the A.A.S.F. move and reorganisation	261
<u>May 18th</u>	264 - 271
Military Summary	264
Reconnaissance	265
Bombing Operations:	
(a) Landrecies - Le Cateau	265
(b) By night: communications on and near the Meuse	267
(c) By night: railways and oil plants in Germany	267
Fighter Operations:	
(a) Fighter Command	268
(b) R.A.F. Component	268
(c) The A.A.S.F.	270
Retirement of the R.A.F. Component	270
<u>May 19th</u>	272 - 282
Military Summary	272
Reconnaissance	273
Bombing Operations:	
(a) Near Rethel	274
(b) By night: communications on and near the Meuse and in advance of the B.E.F. front	275
(c) By night: oil targets in Germany	275
(d) Policy discussion (May 16 - 20th)	276
Fighter Operations:	
(a) Fighter Command	279
(b) R.A.F. Component	279
(c) The A.A.S.F.	281
Retirement of the R.A.F. Component	281

/May 20th

	<u>Pages</u>
<u>May 20th</u>	283 - 290
Military Summary	283
Reconnaissance	284
Bombing Operations:	
(a) Near Maastricht	285
(b) By night: German communications in France and Belgium	286
(c) Oil storage tanks at Rotterdam	288
Fighter Operations:	
(a) Fighter Command	288
(b) R.A.F. Component	288
(c) The A.A.S.F.	288
Retirement of the R.A.F. Component (May 20 - 26th)	288
<u>May 21st</u>	291 - 295
Military Summary	291
Reconnaissance	291
Bombing Operations:	
(a) Near Hesdin and Montreuil	292
(b) By night: communications in France and Germany	293
Fighter Operations:	
(a) Fighter Command	294
(b) The A.A.S.F.	294
<u>May 22nd</u>	296 - 300
Military Summary	296
Reconnaissance	296
Bombing Operations:	
(a) In the departments of the Somme and the Pas de Calais	297
(b) By night: communications leading to and across the Upper Meuse	299
(c) By night: oil targets in Germany	299
Fighter Operations:	
(a) Fighter Command	299
(b) The A.A.S.F.	300
<u>May 23rd</u>	301 - 305
Military Summary	301
Reconnaissance and Bombing Operations	
(a) Organisation (May 23rd-June 4th)	302
(b) The Boulogne area	303
Bombing Operations:	
(c) By night: German communications in France, Belgium, Holland and Germany	304
Fighter Operations	304
<u>May 24th</u>	306 - 308
Military Summary	306
Reconnaissance and Bombing Operations;	
(a) The Pas de Calais and the department du Nord	306

/By night:

<u>May 24th Contd.</u>	<u>Pages</u>
Bombing Operations:	
(b) By night: communications in France, Belgium and Germany. Oil tanks at Rotterdam. A factory at Leverkusen	307
Fighter Operations	307
<u>May 25th</u>	309 - 311
Military Summary	309
Reconnaissance and Bombing Operations:	
(a) In the Pas de Calais and department du Nord	309
(b) Other areas. Between Menin and Courtrai	310
Bombing Operations:	
(c) By night: communications in France, Belgium and Germany	310
(d) By night: oil tanks at Rotterdam; refineries in Germany	311
Fighter Operations	311
<u>May 26th</u>	312 - 315
Military Summary: Beginning of operation "Dynamo"	312
Reconnaissance and Bombing Operations:	
(a) Near Courtrai	313
(b) The Pas de Calais and department du Nord	313
Bombing Operations:	
(c) By night: communications and aerodromes	314
Fighter Operations	314
<u>May 27th</u>	316 - 320
The evacuation	316
The organisation of the perimeter: the retirement on Dunkirk	316
Belgian surrender	317
Reconnaissance and Bombing Operations:	
(a) The Belgian - B.E.F. front	317
(b) The Pas de Calais	317
Bombing Operations:	
(c) By night: aerodromes, dumps and communications	318
(d) By night: German oil refineries	319
Fighter Operations	319

/May 28th

	<u>Pages</u>
<u>May 28th</u>	321 - 323
The withdrawal and the evacuation	321
Reconnaissance and Bombing Operations:	
(a) The Pas de Calais and the department du Nord	321
(b) West of Courtrai	322
Bombing Operations:	
(c) By night: German communications in France and Belgium	322
Fighter Operations	322
<u>May 29th</u>	324 - 328
The withdrawal to the perimeter: the evacuation	324
Reconnaissance and Bombing Operations:	
(a) East of Dunkirk and in the Pas de Calais and the department du Nord	324
Bombing Operations:	
(b) By night: communications at Charleville and behind Dunkirk	326
Fighter Operations	326
<u>May 30th</u>	329 - 332
The evacuation	329
Reconnaissance and Bombing Operations:	
(a) The approaches to Dunkirk	329
Bombing Operations:	
(b) Revised bombing directive	330
(c) By night: the approaches to Dunkirk	330
(d) By night: oil at Hamburg	331
Fighter Operations	331
<u>May 31st</u>	333 - 336
The evacuation	333
Reconnaissance and Bombing Operations:	
(a) The approaches to Dunkirk	333
Bombing Operations:	
(b) By night: communications in the Rhine, Ardennes, Meuse and Dunkirk areas	334
Fighter Operations	334
<u>June 1st</u>	337 - 341
The evacuation	337
Reconnaissance and Bombing Operations:	
(a) The approaches to Dunkirk	337
Bombing Operations:	
(b) By night: the approaches to Dunkirk	338
(c) By night: marshalling yards and oil in Germany	338
Fighter Operations	338
<u>June 2nd</u>	342 - 343
The evacuation	342
Reconnaissance and Bombing Operations:	
(a) The Dunkirk area	342

June 2nd (Contd.)

Pages

Bombing Operations:

- (b) By night: communications and aerodromes in France, marshalling yards and oil in Germany

342

Fighter Operations

342

June 3rd

344 - 345

The evacuation

344

Reconnaissance and Bombing Operations:

- (a) Near Dunkirk

344

Bombing Operations:

- (b) At night: communications and batteries near Dunkirk. Oil and railway objectives in Germany. Oil storage tanks at Ghent and Rotterdam

344

Fighter Operations

345

June 4th

346 - 349

The evacuation

346

Reconnaissance and Bombing Operations:

- (a) North of the Somme

346

Bombing Operations:

- (b) By night: communications and concentrations in France: oil in Germany

346

- (c) Policy discussion, May 30th - June 4th

347

Fighter Operations

349

-186-

TOP SECRETMAY 10THMILITARY SUMMARY

Summar-
ies for
10.5.40
in
A.H.B.
IIH2/402
IIH2/50
and
II/9

The German attack in the West began in the small hours of May 10th, 1940. Military assaults against the frontiers of Holland, Belgium and Luxembourg were combined with air attack against aerodromes and communications in these countries, and in France. In Holland in addition to the advance over the frontier a full-scale air invasion of the heart of the country, round Rotterdam and the Hague, was effected by parachutists and airborne troops. In Belgium the attack on the whole followed more orthodox lines, but parachutists were used at numerous points, in particular to impede demolitions on the Maas and the Albert Canal. By the end of the day the position indicated by the reports which reached us at the time, was roughly as follows:-

Holland: The Dutch were resisting the land invasion along the Maas and the IJssel, but their fortifications on the latter river had already been breached, for the capture of Apeldoorn by the enemy was reported. The airborne forces, which had overleapt the Dutch defences and caused an immediate threat to the heart of the country, clung tenaciously to Waalhaven aerodrome, and had appeared in sufficient numbers throughout the day to cause the utmost confusion in the vital Hague-Rotterdam area. The French Seventh Army had, according to plan, begun its race along the coast and the occupation of the island of Walcheren, not with the hope of saving the Dutch (whose resistance was never expected to last longer than a few days), but to secure the mouth of the Scheldt and the left flank of the allied line.

Belgium: Demolitions had been carried out along the frontier, but had been prevented by parachutists at two bridges over the Albert Canal West of Maastricht. This was to mean, in effect, that the first Belgian defence line was already pierced, for the enemy was very prompt to exploit the situation. This news was not apparently known at B.A.F.F. Headquarters until the morning of May 11th.

Luxembourg: The Germans had completely occupied the Duchy, whose Southern frontier the French were, however, holding. The enemy was thus well set to advance into Southern Belgium through the Ardennes.

To meet the German advance the Franco-British Forces between the Northern end of the Maginot Line and the Channel were executing their pivot movement on Mezières, and advancing through Belgium towards their selected line of resistance - the Meuse - ~~Namur~~ - Wavre - the Dyle - Antwerp.

THE OPENING MOVES

B.A.F.F.
and North
B.A.F.F.
Forms
540

For some hours before the German invasion was actually launched, rumours and reports of its imminence reached the allies. 'Flaps', however, had frequently occurred before - notably in November, January, and in April - and this particular scare suffered, perhaps, from its lack of novelty. During the evening of May 7th, Air Marshal Barratt, at Coulommiers,

MAY 10TH

telephoned Group Captain Strafford at Chauny (Advanced B.A.F.F. H.Q. (North)) to warn him of the possibility of an 'alerte' being ordered; and at the same time Colonel Hopkinson, of No. 3 **Mission**, was advised that he should be ready to move into Belgium. The same night, Z.O.A.N. Headquarters received, and passed to Group Captain Strafford, warning of expected air attacks at dawn; which did not, however, eventuate; and at 0215 hours on May 9th Air Marshal Barratt received from Air Ministry a telephone message stating that Germany had issued an ultimatum to Holland. "Readiness No. 1" was consequently ordered throughout the British air forces in France, and the composite squadron of Lysanders and Hurricanes ("2/87") which had been detached to Senon for work near the Maginot Line was ordered to return to the B.E.F. area. This order was, however, cancelled before it could be executed, presumably when later reports failed to verify news of the ultimatum. The British air formations remained, however, in the first degree of readiness.

The night of May 9/10th brought to London and Paris increasingly substantial reports of German stirrings along the frontiers of the Low Countries. To the British air forces in France, however, the first sign that this time it was to be the real thing, was when they experienced the traditional opening gambit of the blitzkrieg - an onslaught by the Luftwaffe against aerodromes and communications. At dawn on May 10th, intense German air activity began. In the A.A.S.F. area, the British-occupied aerodromes of Betheriville, Mourmelon, Berry-au-Bac and Reims-Champagne were all attacked before 0600 hours with high explosive and incendiary bombs, small formations of Ju. 88s or He. 111s being used. About three Battles were destroyed and two damaged as a result of attacks at dawn and throughout the day, in addition to the damage inflicted on hangars or workshops, but in general the A.A.S.F. can be said to have escaped lightly. Senon aerodrome, where 2/87 Squadron was detached, was also bombed at dawn, with no damage to machines or personnel. Rouvres aerodrome was bombed at mid-day, shortly after No. 73 Squadron had been withdrawn from this forward position in accordance with the plan laid down beforehand. In the E.E.F. area, the aerodromes of Lille - Seclin, Arras, Le Touquet and Abbeville were also bombed, mostly in dawn attacks; there is little record of the damage inflicted, but it does not appear to have amounted to much. In counter to these assaults, Hurricanes were already in combat with the enemy by soon after 0400 hours; the details of their fighting will be examined later.

This rude harbinger of the German invasion was also applied to French, Belgian and Dutch aerodromes. Something like forty-five French and eight Belgian aerodromes were attacked, principally in the early morning. Again, it does not appear that any very heavy damage was caused in any one case. Nevertheless the moral, secondary and cumulative effects were probably greater than appears from the first reports of damage inflicted, and the more so when the attacks were repeated the following day. Other targets were attacked in addition to aerodromes, but occupied, by comparison, a very minor share of the Luftwaffe's attentions.

In regard to the German moves by land, for the first few hours it was certain only that Holland had been attacked, but

MAY 10TH

Communicated by
Military
Branch.
No.2 at

North
B.A.F.F.
Form 540

by 0600 hours reports received at General Gamelin's headquarters made it clear that Belgium was also invaded. At 0640 hours General Gamelin informed British officers at his headquarters that he was ordering the advance to the line Antwerp - Namur - the 'plan D' of the military alternatives, in which the B.E.F. would occupy the line of the Dyle between Wavre and Louvain. By this time the highest degrees of 'alerte' had naturally been instituted - No.2 at 0550 hours, No.3 at 0600 hours - and the necessary actions had been taken in the British air formations. At 0715 hours North B.A.F.F. Headquarters ordered No.3 Mission to proceed into Belgium: and at 0740 it informed Air Ministry, Bomber Command, A.A.S.F., Air Component and G.H.Q. of the French High Command's authority to despatch fighter and reconnaissance aircraft (but not yet bombers) over Holland, Belgium and Luxembourg. This was done in the picturesque code signal previously arranged: "Triplets 0725 hours 10/5. Scratching and seeing only." Within the next few minutes North B.A.F.F. also submitted requests to Bomber Command and Air Component to despatch the reconnaissances prearranged for the occasion. At 1030 hours Air Marshal Barratt arrived at Chauny from Coulommiers, and assumed control of operations.

RECONNAISSANCE.

Recce,
reports
in O.R.B.'s
and in
IIR2/585A.

It is unfortunately impossible to state precisely how far the previously agreed scheme of reconnaissance in the R.A.F. Component was implemented, for the Headquarters record of that formation, and the records of most of its units, were lost in the evacuation. From the evidence available, it appears that in general the projected plan was put into effect. Sorties by the Lysanders (No. 13 Squadron for I Corps, and No.4 Squadron for II Corps) were carried out over our own advancing troops, since the leading enemy columns were still in the strategical reconnaissance area. Messages were dropped on Corps and Movement Control Centre, and the information was thought to have been of use in assisting military movements on roads already crammed with civilian refugee traffic. Belgian aerodromes were also reconnoitred, for it was essential to the allied plans to obtain some landing facilities further forward than Lille. The two main Belgian aerodromes near the B.E.F. area - Brussels Evere and Courtrai - were, among others, examined from the air: both had recently been bombed, but the former was reported as still serviceable. Of the other Lysander squadrons, little is recorded save that No.26 Squadron took to the air during the afternoon on receipt of a raid warning, and that No.2 Squadron returned to Abbeville from its period of detachment near the Maginot Line.

Strategical and photographic reconnaissance was apparently also applied in conformity with the scheme drawn up beforehand. Between 0800 and 0830 hours, instructions were issued by R.A.F. Component Headquarters to Nos. 52 and 70 Wings to despatch sorties on the tasks indicated in its Operation Instruction No. 7 (of 31st March); and the first Blenheims, which had been brought to 'stand by' as part of the third degree of readiness, took off between 0850 and 0930 hours. An aircraft of No. 18 Squadron, reconnoitring the southern section of the R.A.F. Component strategical

MAY 10TH

reconnaissance area,* reported Dutch demolitions on the Noore and Wessem Canals, and that all bridges over the Maas between Venlo and Thurn were demolished: Dutch and Belgian columns were seen moving East, but there was no sign of the enemy, apart from a large fire in Brussels and the attentions of a Me. 110. A further strategical reconnaissance was flown, from 1100 hours, by a Blenheim of No. 57 Squadron, embracing Venlo, Geldern, Wesel and Duisburg: smoke in the Ruhr area rendered observation and photography difficult, but a vehicle column one mile long was seen moving northwest from Kaldenkirchen at great density. An evening sortie from the same Wing - No. 70 - covered the more northerly section of the area, including the road Hertogenbosch - Tilburg at 300 ft. It saw no movement, but was hit by light A.A. on the outskirts of Hertogenbosch, and the pilot was wounded. Three other aircraft of No. 70 Wing, despatched on photographic reconnaissance or on strategical reconnaissance of the northern section* did not return. No. 52 Wing also despatched strategical and photographic reconnaissance sorties taking off at 0840 hours: the strategical reconnaissance which covered areas 1a and 2a noted many demolitions: but the record of the three photographic sorties is not preserved. In addition, the survey flight of No. 53 Squadron began work on its prearranged duty of photographing the area between the Senne and the Dyle.

The reports derived from the deep reconnaissance by the R.A.F. Component squadrons, which had occupied ten sorties and cost three Blenheims missing, obviously gave little positive information of the enemy's movements. Nor was the previously agreed reconnaissance over the area north of the Lek, for which Bomber Command was responsible, much more decisive. In the morning four Blenheims were despatched from England, of which one succeeded in carrying out its full task and one was lost. Little of significance was observed, even from 200 ft., along the route Wesel - Arnhem, but two of the sorties returned with useful details of the German aircraft on the ground near Rotterdam and the Hague. To the south of the B.E.F. area, the French First Army reported from air reconnaissance at mid-day that about thirty parachutists had been seen near Maastricht, on the left bank of the river, while violent anti-aircraft fire had been met at Landen and St. Rond.

BOMBING OPERATIONS: (a) Waalhaven and Ypenburg aerodromes: the Hague beaches.

The information derived purely from reconnaissance about the enemy's movements opposite to the whole Northern allied area - French 7th Army, Dutch, Belgians, B.E.F., French 1st Army - while meagre, at least justified the launching of an attack against the German aircraft on Dutch aerodromes and beaches. Indeed, reports from the Air Attache at the Hague, and from the Dutch, of the success

* See map of strategical reconnaissance areas.

MAY 10TH

achieved by German parachutists at Waalhaven (Rotterdam) and Kijkduin (The Hague) aerodromes, had been flowing in to London from 0815 hours onwards. By 1025 hours, Waalhaven had been reported in German hands, and requests for bombardment by British aircraft were beginning: while at 1255 hours Ypenburg and two other aerodromes were also reported to have been captured. The earlier of these reports had stimulated B.A.F.F. to request Bomber Command reconnaissance over this area: and, the reconnaissance having confirmed the necessity for action, B.A.F.F. requested Bomber Command at 1205 hours to put in an attack on Waalhaven by one squadron. This request coincided with a disastrous attack on Waalhaven aerodrome by six Fighter Command Blenheims, which had been despatched as the result of a Cabinet ruling that fighters rather than bombers should be employed on the mission, in order to avoid possible casualties in Dutch civilians. After attacking a Ju.52 on the ground, the Blenheims were themselves set on by 12 Me.110 from above, and only one aircraft of the flight regained Manston. The lost aircraft were, incidentally, all fitted with I.F.F., without exploders, and some concern was felt at the possibility of the I.F.F. device having fallen into German hands.

W.M. (40)
118th
Concls.

Fighter
Command
Form 540
(see also
IIH/7
10.5.40)

At 1400 hours, in response to the B.A.F.F. request of two hours beforehand, nine Blenheims of No. 15 Squadron took off from Wyton, and bombed Waalhaven: they claimed to have started fires, to have destroyed about 16 aircraft on the ground, and to have killed about 50 airmen, while suffering no loss themselves in the process. These attacks, however, did not restore the aerodrome to Dutch control: demands for British bombing continued to pour in throughout the rest of the day, and by the evening Waalhaven aerodrome was still, in the minds of the Dutch General Staff, the blackest spot in the military situation.

Of the other Dutch aerodromes which had fallen into German hands, an attack on Ypenburg by Bomber Command aircraft was requested from B.A.F.F. at 1426 hours, on May 10th: at 1530 hours the Air Attache at The Hague signalled Air Ministry that the Dutch had recaptured Ypenburg: but this news was not apparently received in time to prevent No.40 Squadron's departure from Wyton for the operation at about 1550 hours. Nor is it clear that the Air Attache was in fact right. Fires were caused, and a hangar hit, but three of the twelve Blenheims were apparently shot down by enemy fighters in the vicinity of the aerodrome. The Ju.52's which had landed on the beaches near The Hague were also attacked during the evening by a squadron of Bomber Command Blenheims (No.110), escorted by No.600 (F) Squadron Blenheims. Both bomber and fighter Blenheims delivered attacks: the degree of success achieved is uncertain, but the fighters claimed to have destroyed at least four enemy aircraft, and to have damaged others, for the loss of one of their own machines.

BOMBING OPERATIONS: (b) Luxembourg.

The attacks on Waalhaven and Ypenburg aerodromes, and on the beaches north of the Hague, by Blenheims of Bomber and Fighter Commands, were the sum of British offensive air activity on the Northern front during the first twenty-four hours of the German invasion. In a completely different area,

MAY 10TH

however - the Duchy of Luxembourg - the A.A.S.F. bombers were four times called upon to operate. At 0725 hours on May 10th, the French Second Army - whose duty was to act as a hinge for the advance of the allied armies on its left, and to throw forward a defensive cavalry screen - had reported that German troops were advancing into Luxembourg: while shortly afterwards a reconnaissance aircraft despatched by the French Third Army (on the right of the Second) reported a mechanised column ten miles long on the road from Echternach, with its head at Luxembourg. The aircraft was compelled to return owing to heavy fighter opposition - a feature which soon came to be particularly associated with the path of an important German column. This report was transmitted from East B.A.F.F. Headquarters, at Nancy, to B.A.F.F. and it was followed at 0910 hours by a further report that German transport aircraft were dropping troops in various parts of the Duchy.

In consequence of these reports, and of a further confirmatory French reconnaissance, 8 aircraft of No. 142 Squadron of the A.A.S.F. were ordered to 'stand by' at 0930 hours: "permission to bomb", however, was not received from North B.A.F.F. Headquarters until mid-day, at which time the aircraft duly took off.* Their objective was the enemy between Luxembourg and Dippach and on the neighbouring roads. The Battles, which were to have the benefit of general protection from six Hurricanes over the target area at the time of the attack, made their orthodox tactical low approach. They encountered very sharp pom-pom and machine gun fire from the ground, and from the enemy vehicles, and three of the eight Battles failed to return. Similar opposition, with similar results, met three further waves of Battles, each of eight aircraft, which attacked the same targets during the afternoon and early evening. The aircraft, using 4 x 250 lb. bombs fused 11 seconds delay, went in to attack at about 250 feet, but they found the fire from vehicles - even from motor cycles - was exceptionally hot, and every one of the machines which returned was badly holed. Already pilots were reporting that the picking out of targets was being made difficult by refugees on the roads: and though damage, and probably some delay, was caused by the attacks, the enemy in general was not found to present such a close and attractive target as had been imagined. In this context, the A.A.S.F.'s own report may be allowed to speak for itself: "Even at this early stage of operations, the difficulties of operating against fleeting targets became evident. The columns against which raids had been despatched proved to have dispersed or to have moved elsewhere by the time the raid reached the area of operations." Thirteen out of 32 aircraft lost, and all the rest damaged, was therefore, on the whole, a severe price to pay for the day's operations in this area. Only the first wave of the four appears to have had fighter protection: but the decisive factor in causing the losses was undoubtedly the low approach in the face of the enemy ground fire. It should be remembered that this low approach was partly dictated by the knowledge that an approach at height, in the absence of fighter escort, would have exposed the all too vulnerable Battles to attacks by enemy fighters.

A.H.B.
IIH2/514.

* Even then Air Marshal Barratt apparently anticipated orders from above: he appears to have sent off the bombers on his own initiative, being impatient of French delay. The French, he states, were extremely glad when he thus took the plunge for them. (Personal communication to narrator).

MAY 10TH

BOMBING OPERATIONS: (c) By night. Waalhaven aerodrome and communications in Germany west of the Rhine.

In view of the critical situation at Waalhaven, it was arranged that 36 Wellingtons should deliver sustained attacks during the night up to 0300 hours to prepare the way for a Dutch attempt to recapture the aerodrome immediately afterwards. The attacks were duly delivered and all our aircraft returned safely. 250 lb. bombs were employed, fires were started, and hits were claimed on hangars, buildings and aircraft.

This concentration of attack on Waalhaven aerodrome arose from two particular reasons in addition to the general importance of the target. In the first place the Germans were, according to General Gamelin, using Waalhaven as a base from which to attack ships carrying allied troops (principally of the French Seventh Army) to Holland. Secondly, even at this stage there was still reluctance to put into effect the British Air Staff's favourite policy of an immediate attack on German oil plants and communications in the Ruhr. During the day the War Cabinet debated the question: and in the afternoon Air Vice Marshal Eville, on the instructions of the Chief of the Air Staff, called on General Vuillemin to discuss the matter. General Vuillemin considered that the British were free (as they certainly were) under the terms of the agreement in the Supreme War Council, to take action of this sort if they so desired, and he indicated that he himself would not oppose it: but he also advocated the attack on "precise objectives of obvious military value." Indeed in order to settle opinion, much time was spent during the day in listing the number of French civilians who had been injured by German air raids, and in considering the degree of deliberation which lay behind such attacks, - an investigation which at first yielded no very precise result, beyond a general consensus of opinion that in France at least German air action had been in the main obviously intended for "military objectives." The War Cabinet's decision was that action by the heavy bombers against the Ruhr targets should for the moment be deferred. *

Attack on communications and military concentration areas in Germany west of the Rhine was not, however, ruled out, and nine Whitley sorties were despatched during the night against roads, railways, and bridges in and near the four German towns through which forces would advance on Southern Holland - Geldern, Goch, Cleve and Wesel. They departed only after General Georges had made clear his reluctance to bombard urban targets.

FIGHTER OPERATIONS AND REINFORCEMENT: (a) Fighter Command

The British fighter activity of May 10th, apart from that mentioned in connection with the bombing operations, took several forms. From their aerodromes in South East England patrols were carried out by Fighter Command aircraft, along the Belgian and Dutch coasts, in accordance with the pre-arranged plan. Patrols were carried out at a

*For discussion of the Ruhr project, May 10-15th, see pages 233-236.

North
B.A.F.F.
Form 540,
10.5.40.

W.M.(40)
117th,
118th and
119th
Concls.

A.H.B.
IIM/a4/1a
A.144.

W.M.(40)
119th
Concls.

MAY 10TH

strength of four or six aircraft, which were drawn from two Blenheim and three Hurricane squadrons: forty-four sorties were flown during the afternoon and evening, but only one enemy aircraft was encountered.

Apart from these patrols, the escort to the raid on the Hague beaches, and the disastrous fighter attack on Waalhaven aerodrome, Fighter Command also put into effect the major part of the reinforcement plan for France. The full plan envisaged the transfer of two Hurricane squadrons to the R.A.F. Component and two to the A.A.S.F. on the opening day of the invasion (if they could be spared from England), but the Norwegian enterprise had recently caused some slight interference with preparations for this, and accordingly on May 10th only three squadrons were despatched. During the afternoon the aircraft of No. 3 Squadron duly arrived at Merville, and of No. 79 Squadron at Mons en Chaussée; while No. 501 Squadron joined the A.A.S.F. at Betheniville. They were immediately to find themselves in the very thick of the fray.

FIGHTER OPERATIONS: (b) The A.A.S.F.

The Luftwaffe's onslaught against aerodromes and communications at dawn on May 10th has already been mentioned: and it naturally implied a high degree of defensive activity on the part of the fighter squadrons of the A.A.S.F. and the R.A.F. Component. From first light onwards the two squadrons in advance of the A.A.S.F. area were frantically busy. "Ceaseless activity", reported No. 1 Squadron, "...drones of Dorniers were passing overhead at regular intervals, and orders were received to take every machine that was flyable into the air and circle madly round the aerodromes.... one Hurricane had no guns." No. 73 Squadron for its part, speaks of "a day too crammed with incident to hope to do anything like justice to it." A number of combats occurred in this early morning period, in which many successes were claimed against formations of unescorted bombers, usually about nine strong, and apparently having aerodromes as their objectives.

No. 1
Squadron
Form 540
10.5.40.

No. 73
Squadron
Form 540
10.5.40.

The two squadrons were then withdrawn from their advanced position, in accordance with the pre-arranged plan, to A.A.S.F. aerodromes - Berry au Bac and Reims - Champagne. This withdrawal, it was calculated, would afford the two squadrons a better position to defend the A.A.S.F. aerodromes, and to supply cover for our bombing operations. From their new stations patrols were immediately flown, but proved to be uneventful. No. 501 Squadron, however, which arrived at Betheniville as a reinforcement from England at about 1630 hours, was very soon in action, for by 1800 hours two of its aircraft were in combat with 40 He.111's near the aerodrome, and before the evening was out the squadron had claimed its first victim. In all during the day, the three squadrons, apart from each carrying out a major move, flew forty-seven sorties, encountered some eighty enemy aircraft, and shot down about six for a loss to themselves of two Hurricanes in combat or forced landings.

FIGHTER OPERATIONS: (c) The R.A.F. Component

The fighters of the R.A.F. Component were kept equally busy. Aircraft of No. 87 Squadron, which were still detached

MAY 10TH

at Senon when the German attack opened, engaged two or three raids on the aerodrome by Do.17's before the squadron was recalled to the B.E.F. area. On the way north west a further combat was fought with four enemy bombers near Mezières: and other enemy aircraft were engaged soon after the squadron had safely arrived at its appointed aerodrome, Lille-Seclin. Here it joined No.85 Squadron, aircraft of which had at dawn successfully engaged small bomber raids over Belgium, in the Ghent-Grammont area, and had since fought several more combats. On at least one occasion - at 1830 hours - the enemy was found in strength, for at that time, near Thielt, twenty-five to thirty He.111's were encountered. It is noteworthy that these combats were nearly all fought between 7000 and 15000 ft., and that no German fighter escort was encountered, save possibly for some Me.110's in the evening. About these the records are too vague to speak with certainty.

The remaining squadron of the R.A.F. Component which fought more or less all day long was No. 607, at Vitry-en-Artois. Combats were fought with unescorted enemy bombers (mostly in threes and fours, but on one occasion rising to a scattered formation of over twenty) at about 0440, 0500, 0530, 1200, 1430, 1590, 1720, 1840 and 2040 hours, many of these being forward over the Belgian frontier. Of the other R.A.F. Component fighter squadrons, No. 615 was at rearward aerodromes, being still in the process of re-equipment. The Hurricane flight, at Le Touquet, for Channel patrols, was bombed during the morning, and returned two or three aircraft short to Abbeville in the afternoon; the Gladiator flight at Abbeville, about to re-equip with Hurricanes, was also bombed, though ineffectively. The only attempt at subsequent interception seems to have been by a single Gladiator, flown by the duty pilot. The two remaining squadrons - Nos. 3,79 - both came out from England during the afternoon; the latter does not seem to have been engaged during its evening patrol, but No. 3 Squadron fought at least three combats (of which one was with a force of 20 - 30 He.111) before the day closed.

In sum, during the first day of the German assault the R.A.F. Component fighters flew 161 sorties, patrols being at an average strength of three or four aircraft: of these 81 sorties resulted in combats. During these encounters 36 enemy bombers were claimed as destroyed conclusively, and of these the wreckage of 16 was found by nightfall. As against these successes, the Hurricanes lost one aircraft destroyed in combat and one by enemy bombing, and suffered damage to seven others - six through forced landings after combat, and one from enemy attack on the ground. No British pilots were killed or reported missing, and only three were injured. In achieving this remarkable work, the pilots of the three squadrons continuously engaged were naturally pressed to the utmost, for the majority made at least three or four sorties, and some made six or even seven.

A.H.B.
IHH2/585a
for
11.5.40.
(Enc.1B)

In view of these facts it is not surprising that Group Captain Fullard, commanding No.14 Group, could write after the first day's work: "I have never seen Squadrons so confident of success, so insensible to fatigue and so appreciative of their own aircraft."

MAY 10TH

SUMMARY.

If what was accomplished during the day of May 10th by the British air forces is examined in general, it will probably be seen to amount to this. The strategical reconnaissance brought back information which was valuable, but not decisive. The bombing operations varied widely in the degree of success achieved. Of these, the effect of the A.A.S.F. attacks on German troops in Luxembourg was very temporary, and was achieved only at the prohibitive cost of 40% of sorties: but the Bomber Command attacks by day on targets in Holland were at least much less expensive, with a loss of 9% of sorties. Probably the most effective, and certainly the most economical bombing during the first twenty-four hours was by the Wellingtons at night against Waalhaven aerodrome, for no aircraft were lost, and the Dutch at any rate momentarily recaptured the aerodrome in the morning. The single ground attack by fighters was an expensive failure, with 84% of casualties, but the work of the A.A.S.F. and R.A.F. Component Hurricanes was undoubtedly magnificent. To provide anything like adequate protection for their allotted areas they were far too few, and had much too little in the way of an effective warning system: nevertheless they engaged the enemy ceaselessly and exacted a very high toll of his aircraft in proportion to the losses they themselves suffered. And in fact the B.E.F. did - if not entirely due to this reason - advance into Belgium with very little unwelcome attention from the Luftwaffe.

M A Y 11THMILITARY SUMMARY

By the end of the day the following broad developments had occurred:

War Office
& B.A.F.F.
Intelligence
Summaries,
Reports from
No. 3 Air
Mission, etc.

Holland. The Germans were overrunning the indefensible frontier provinces on the North-East: had pressed past Apeldoorn and Arnhem towards Utrecht in their attack on the main Dutch Positions: and had made alarming progress in their airborne invasion of the Rotterdam area. Here matters had been in no wise redressed, for the Dutch attack in the morning could do no more than loosen very temporarily the German hold on Waalhaven aerodrome. By the afternoon the Germans had landed considerable forces from the air at Delft (the town of which they had also bombed very heavily), and were reported to be marching in force on the Hague. These events, together with the fighting in Rotterdam, had severed many vital communications and increased the general confusion in the South Holland province. By night the situation in this area was critical.

Belgium. Advance elements of British and French troops began to reach the Dyle positions, but resistance by the Belgians on their forward lines was not lasting as long as had been hoped. Having overcome the obstacles of the Meuse and the Albert Canal near Maastricht, German forces were by 1345 hours reported in possession of Tongres. The Belgians therefore retired, hoping to make a fresh stand along the river Gette, and thus still to protect the allied advance to the Dyle. South of this German thrust from the Maastricht direction, developments in the Belgian Ardennes were also unfavourable, for the French screening elements of the 9th and 2nd Armies encountered enemy forces of a strength which constituted a major threat.

RECONNAISSANCE

The morning of May 11th brought in to B.A.F.F. Headquarters from various sources a number of reports which cumulatively stressed the necessity for action near Maastricht and in the Ardennes. The most fruitful source of information for the Maastricht area was No.3 Air Mission, which was now well established, and was transmitting information of great value: while the Ardennes continued to be the subject of detailed reports from French reconnaissance aircraft. The British reconnaissances did not, on the whole, establish a great deal of information about the enemy in a positive sense. The morning reconnaissances by Bomber Command north of the Lek returned with their task unaccomplished, on account of bad weather: the R.A.F. Component Lysanders continued to report largely on our own troop movements: and the four photographic sorties by Blenheims of No.53 Squadron were failures - three from low cloud and the other from the loss of the aircraft. Moreover four low level reconnaissances of the Albert Canal by No.18 Squadron resulted in two Blenheims lost and two damaged. One of the latter reported that it was "all Khaki" south and west of the Canal. The opposition suffered by these aircraft was, however, in itself indicative of much, and by mid-day it was considered at B.A.F.F. Headquarters that no further reconnaissance could be made of the Maastricht area, since German fighters were present

in too great a strength. When in spite of this a Blenheim was despatched in the evening the aircraft duly confirmed the dangerousness of the district by failing to return. A French aircraft of the 1st Army, however, did succeed in covering the area at about 1430 hours, and reported continuous traffic streaming from Maastricht over an undemolished bridge to Tongres.

BOMBING OPERATIONS: (a) Near Maastricht.

If it was difficult to secure an exact picture of the situation west of Maastricht, it was thus at any rate certain that a real threat existed there, and that air support was badly needed. Bombardment of canal bridges west of Maastricht had been requested from Belgian G.Q.G. by 0510 hours, and it had been arranged that this should be carried out by General d'Astier's forces. Bad weather, however, prevented the French attack. The Belgians themselves put a squadron on to these objectives during the morning: nothing is recorded of the result, save that the aircraft encountered very strong Me. 110 opposition. At 1100 hours Belgian G.Q.G. again requested action in this area against German columns debouching from Maastricht on Bilsen and Tongres. French and British attack was agreed on, and was ultimately timed to be carried out by Bomber Command at 1530 and 1630, and by the French at 1830 hours. There was considerable difficulty in arranging fighter cover from the R.A.F. Component, and what eventually happened is by no means clear, but some R.A.F. Component Hurricanes were without question over the area and hotly engaged at 1630 hours. Another difficulty was the conflicting reports of the situation at Tongres, which resulted in some of the aircraft being directed against the exits and entrances of Maastricht, instead of nearer the heads of the columns. The attack was duly delivered by two squadrons of Blenheims (Nos. 110 and 21), the first squadron concentrating on the railway and road bridges at Maastricht, and the second on enemy troops midway between Maastricht and Tongres. Observation of results was difficult, and nothing very definite could be claimed. Two of the aircraft which attacked the Maastricht targets failed to return: all of those which attacked the columns returned, but eight of them were rendered unserviceable by fire from the ground. The French attacked later, in accordance with arrangement. What effect was achieved by these efforts to interfere with German progress in this area it is difficult to say.

BOMBING OPERATIONS: (b) Near Prum.

The only other attack of the day was scheduled to be delivered by the A.A.S.F. against an enemy column inside German territory and approaching the Duchy of Luxembourg. Danger had naturally been appreciated in this area since the events of the previous day, and a French night reconnaissance had indicated that important forces were being moved up through Prum towards Echternach. Eight Battles were accordingly despatched to attack those forces on roads in the vicinity of Prum, and six Hurricanes were ordered to supply cover over the area at 0945 hours - seven hours after the column had been first sighted. The Hurricanes reported the presence of several convoys, but have left no account of the appearance of the Battles. Indeed there is no indication that the bombers ever reached their target area. The only pilot who landed safely - though with his aircraft badly damaged - explained that his leader forced-landed near Bastogne, and that he lost the remaining two aircraft near St. Vith from ground fire. He was himself unable to drop his bombs because his bomb-gear had been damaged and he returned followed by an Me. 109. Of the remaining four aircraft there was no news at all.

May 11th

North
B.A.F.F.
Form 540
Appendix
A41.

This operation, involving a loss of 100% if the subsequent write-off of the damaged aircraft is included, coming on top of a loss of 40% of sorties on the first day, caused grave anxiety about the whole future of operations by the A.A.S.F. bombers. That this was so may be seen in a telephone conversation between Air Marshal Barratt and the Chief of Air Staff in the evening, for Air Marshal Barratt explained that he had refrained from further attacks in view of the necessity of conserving his forces - a necessity which had been freshly stressed to him by the Chief of Air Staff the previous day. We were thus in the unfortunate position, on this occasion, of knowing almost precisely where large German columns could be found, but of being unable to afford the cost of attacking them.

A further operation was requested by the French at 1935 hours against a column advancing into the Belgian Ardennes, but was disallowed as the raid could not be completed before dark.

BOMBING OPERATIONS: (c) By night. Munchon - Gladbach

The night operations were related neither to the approaching threat in the Ardennes, nor to the major plans for attack on Germany (for on this latter subject the War Cabinet had again decided to postpone action).. They were designed specifically to assist matters in the Maastricht - Albert Canal area. The French First Army was particularly apprehensive of an attack the following day towards the Albert Canal, in conjunction with a big thrust through the breach already made at Maastricht. In consequence the French themselves arranged to attack entrances at Maastricht and Aachen (through which German reinforcement towards Maastricht would pass): and they requested that the British would attack the Maas crossings of Venlo and of Roermond, and, further east, the northwest exits of Munchon-Gladbach. It was thus obviously intended that the British should hinder the passage of supply and reinforcement to the more northern arm of the apprehended German advance. Bomber Command, however, indicated that the crossings at Venlo and Roermond might be extremely difficult to identify, and in fact we did not attempt to attack them.

The whole weight of the night's work was, therefore, directed against communications in and about Munchon-Gladbach. Eighteen Whitleys carried out a sustained attack on the road and rail junctions and the marshalling yards between 2300 and 0030 hours, besides bombs dropped on a convoy nearby. Large numbers of vehicles were seen on the road to Aachen, but over the target weather permitted little visibility, with ground mist and no moon. The Whitleys' attacks were followed between 0030 and 0315 hours by others from Hampdens. Of the eighteen Hampdens which set out, however, three returned early because of mechanical defects and five reported either that their bombing was unsuccessful on account of the intense darkness or that they bombed on estimated time of arrival only. In all, the night's operations cost two aircraft: the effect in restricting German passage towards the Maastricht peninsula can only be guessed.

FIGHTER OPERATIONS: (a) Fighter Command.

Fighter Command put up four patrols during the afternoon and evening along the Belgian and Dutch coast to Flushing, mainly to protect naval units which were blocking the port entrances. Shipping at Flushing was being dive-bombed when one of these patrols appeared, and indeed the whole town had suffered drastically from German air action during the day.

May 11th

The other three patrols failed to see any enemy aircraft. In addition, a squadron of Hurricanes (No. 17) was directed to patrol the Hague, Delft and Rotterdam - a new extension of function which presumably arose in response to the many requests for protection, and after the B.A.F.F. had announced that they were unable to spare a fighter squadron for work over Holland. The squadron fell in with sixteen Me.109 just North of Rotterdam, and two Hs. 126, and in the ensuing combats five of our Hurricanes were lost, while the two Henschels and at least two Me. 109 were considered as destroyed. Soon after this, at about 1700 hours, No.32 Squadron (Hurricanes) raided the Hague aerodrome, attacking 16 Ju. 52 on the ground.

FIGHTER OPERATIONS: (b) R.A.F. Component.

The R.A.F. Component fighters, apart from local defence work, continued to put up patrols to protect the British advance. The forward line of patrol appears to have been Ninove - Soignies - i.e. some twenty miles west and south west of Brussels: while the line further back seems to have been Roubaix - Douai. No. 615 Squadron, in a rearward position at Abbeville, does not appear to have been engaged, nor does No.3 Squadron, whose patrols did not cross over Belgian territory. Remarkably little record of the work of the squadrons has survived in the official documents, but it seems that the hottest fighting took place well forward into Belgium, and probably at a time when the Hurricanes were covering air bombing operations. No. 85 Squadron for instance, claim (at some unspecified time) to have fought a combat in the Maastricht - Tongres area in which they shot down eight enemy aircraft for the loss of one Hurricane and pilot. Five Hurricanes of No. 607 Squadron, in the Squadron's third success of the day, also fell in with enemy aircraft over Maastricht - in this case with ten Ju. 87, one of which was apparently destroyed. Eight Hs. 123 were also observed bombing a village south-west of Maastricht, and an attack was delivered by one Hurricane. These encounters of No.607 Squadron occurred at about 1630 hours, from which it may be inferred that they had been ordered over the Maastricht area to act as cover for the raid by the Bomber Command Blenheims. The strongest force of German aircraft mentioned, however, was encountered over Brussels, where some sixty Ju. 87 were discovered dive-bombing. These were attacked by a flight of No.87 Squadron which was on patrol in the area, one enemy aircraft being claimed, while at the same time three Do. 17s escorted by Me. 109s appeared overhead. The Me. 109s were reported by the Hurricanes to have 'run away', in consequence of which a Dornier was chased across country 'on the deck' and shot down.

FIGHTER OPERATIONS: (c) A.A.S.F.

The A.A.S.F. fighters in the Reims area also continued their intensive activity. The largest number of enemy aircraft encountered during the morning at any single moment was fifteen Do. 17s, which were attacked by three Hurricanes of No.501 Squadron. In the afternoon, however, several large formations were fallen in with. Three Hurricanes of No.1 Squadron, for instance, attacked fifteen Me. 110 near Reims at 1515 hours, while at about the same time eleven aircraft of No.73 Squadron claimed five aircraft destroyed out of a large formation of He. 111, Do.215 and Me. 110s encountered near Sedan. Four hours later, five Hurricanes of No.1 Squadron on defensive patrol near Mézières saw a formation of thirty to forty Do. 18, protected by a dozen Me. 110s at 8,000 feet: the Hurricanes climbed up into the sun and dived on the enemy fighters, claiming the destruction of at least six for only one loss on their own part.

May 11thFIGHTER OPERATIONS: (d) Summary.

It is not possible to give with any accuracy the statistics of patrols flown and aircraft engaged on this day. Up to 1800 hours No.14 Group, R.A.F. Component, reported that they had put up 38 patrols, involving 139 sorties, and had shot down at least twenty one enemy aircraft for the loss of eight Hurricanes. To the same hour, the A.A.S.F. reported 31 patrols involving 40 sorties, but these figures are difficult to believe in themselves, and incompatible with others which may be derived from the combat reports or the operations record books. The A.A.S.F. claim was eight or nine enemy aircraft destroyed for the loss of one Hurricane: if a later combat at 1915 hours is included the total figures would probably read fourteen or fifteen of the enemy destroyed for the loss of two of our machines. Statistical accuracy is not essential, however, to make clear some of the obvious features of the day's work - that the Germans were operating their bombers in larger formations than on the first day: that many of these formations were escorted: and that the Hurricanes continued to take on enormous odds with the utmost valour and success.

GERMAN AIR ATTACK

Communi-
ques of
IIème
Bureau,
French
Air
Force.

The direction of German air attack on May 11th followed to some extent the pattern of the previous day, in that aerodromes were still selected for a great deal of attention. About two dozen French aerodromes were attacked - principally in the early morning - and at the same time three A.A.S.F. aerodromes also suffered. The attack on No.114 Squadron's ground at Condé-Vraux was by far the most effective delivered against any of our aerodromes during the campaign, and therefore, merits recording in what detail is preserved. At 0545 hours twelve Do.17 came low up the Marne, and delivered an attack which lasted about ten minutes, during which about 150 small bombs (50 kg.) were dropped, and the aerodrome was raked with machine-gun fire. Six Blenheims were completely destroyed, all the remainder were rendered unserviceable, the offices were damaged and a petrol dump was set on fire. The effect of this was virtually to eliminate No.114 Squadron from operations before it had even begun them. The Lewis guns of the ground defence, however, did not allow the enemy to return to his base in sufficient number to tell an impressive tale, for no less than eight of the attacking bombers were, it was claimed, shot down.

After these early morning attacks the main weight of the German air offensive seems to have fallen on centres of communications such as Delft and Flushing, whose destruction would paralyse allied operations in a vital area; and on the allied troops advancing or deployed for battle. From many sources, and in particular the Belgians, the French First Army and the French Ninth Army, reports of fierce air bombardment flowed in. At the end of the day, an appreciation by General Needham, head of the Military Mission with Belgian G.Q.G., placed German air attack among the main reasons for the deterioration of the situation south west of Maastricht, which in his opinion had been caused by "initial failure to blow two important bridges; constant heavy bombing by enemy low planes with absolute air mastery; lack of adequate air measures urgently asked for which could have cleared up the situation." To agree with General Needham that German bombing was one factor which had helped to effect the breach near Maastricht, it is not of course necessary to accept his implication that air support sufficient to 'clear up the situation' could have been provided.

IIH2/
585a
11/5/40.

MAY 12th

War Office &
B.A.F.F. Int.
Summaries,
French Air Force
IIIème Bureau,
Reports from
No. 3 Air
Mission, etc.

M I L I T A R Y S U M M A R Y

Holland:

The most conflicting reports continued to come in. The enemy apparently landed further airborne forces in the Hague-Rotterdam area, where the fighting, complicated by parachutists in disguise and the Fifth Column, was of the utmost confusion. The Dutch, for all their efforts, failed however to shake the increasing German hold, which was by now spreading to the district round Dordrecht. Resistance still continued both North and South of the Waal against the more orthodox German land attacks, the full extent of whose penetration was not clear. To the South the French Seventh Army by the end of this day had advanced beyond the main Antwerp position to a forward line Broda-Turnhout. It was soon to retire again.

Belgium:

In the North the enemy pressed towards the Turnhout Canal, and by midday was reported to have occupied Moll. To the centre, the Germans had passed through Tongres and occupied St. Trond and were moving towards the line of the Getto from Tirlemont to Diest. Behind this the B.E.F. had by the evening of May 12th completed the first phase of their operations and had established themselves between Louvain and Wavre along the main resistance line of the Dyle. To the South East of this area Liege fortress was still holding out, but the Germans were well West of the town and in contact with the advanced French Cavalry Corps between Hannut and Huy. These French forces had that day reconnoitred the country round Gembloux, in the natural gap between the Dyle and the Meuse. They had found that no effective obstacle had been constructed there by the Belgians, and that the obstacle a little further forward, through Perwez, was both unfinished and badly sited on a forward line. Further to the South, in the Belgian Ardennes, German progress was very fast, for Paliseul, Bouillon and Givonne were all reported as captured by the enemy, who had now in some places, in spite of the advanced cavalry of the Ninth and Second Armies, reached the Franco-Belgian border. In particular the direction of Sedan seemed to be threatened.

Lord Gort's
despatch.

Document
No. 9
Section II,
12.5.40.

The situation in general was thus that the British and French were establishing themselves along the positions they had selected for the battle, and towards which the Belgians were retreating; that those French elements pushed forward had found the enemy unpleasantly strong; and that the vital thrust towards Sedan was still regarded as no more serious than the German advances further north. Evidence of this appears in a signal sent to the Chief of Air Staff by Air Marshal Barratt at 2000 hours: "No. 2 Mission report that G.Q.G. not yet able to decide which of the two following enemy thrusts is main attack, general axis Maastricht - Gembloux with secondary thrust on axis Bois-le-Duc - Tilburg, or attack in Ardennes in general direction Mézières with purpose turning Maginot Line."

RECONNAISSANCEMay 12th

The Lysanders of the R.A.F. Component continued to make contact patrols over the British advance, but they also began on this day the first reconnaissance of the troop movements of the enemy. No.4 Squadron, for example, carried out three sorties to report on enemy movements in the Tirlemont - Louvain area, but nothing very conclusive was seen. Damage to Belgian aerodromes was reconnoitred, and appeared to be severe at Wanche, Tirlemont and Diest, over thirty aircraft being reported burnt out on the ground.

The Blenheims of the R.A.F. Component carried out several sorties from which useful information was derived, even though much of it was negative. About six strategical reconnaissances were flown, during which two aircraft were damaged and one was lost. They were confined, apart from one deeper night sortie 11/12 May, to the area of the German advance into Central and Northern Belgium and South Holland. Some valuable reports were brought back on the bridges over the Albert Canal between Herenthals and Hasselt, for all were reported as cut save for one at Beeringen which had been repaired, presumably by the Germans. On the whole the reports of the Blenheims indicated less enemy pressure over the Albert Canal than had been feared. Reconnaissance reports from aircraft of the Seventh and First French Armies that reached R.A.F. Component Headquarters also failed to indicate any more immediate danger than was already apprehended towards Antwerp in the north or Gembloux in the centre.

The most alarming reports of the day must undoubtedly have been those of the French aircraft which reconnoitred the Ardennes - Luxembourg area; and the broad trend of their evidence that the most powerful thrust was being prepared here, was confirmed by the experience of our Battles in their bombing missions against these columns. The IIieme Bureau of the French Air Force, in its Communique for the day of May 12th (up to 1600 hours), announced in fact that very strong enemy pressure was being experienced in the general direction of Sedan, two armoured divisions and six regular divisions having been identified. In the Maastricht line of advance only five divisions had been identified, though admittedly of these three were armoured and one motorised. General d'Astier (in personal conversation with the narrator) has stated that though his reconnaissance from May 10-12th repeatedly reported great forces in the Ardennes - Luxembourg area G.Q.G. was too wrapped up in the situation around Maastricht to take appropriate action. Thus the French High Command had clear indications of the danger signs in the south, and if their thoughts still ran in terms of the greatest peril being in the north or centre, that was perhaps because their preconceived ideas lent every colour to the suggestion.

May 12th

BOMBING OPERATIONS: (a) Near Maastricht

Document
No. 7
May 12th

A directive from General Georges issued on the night of May 11th appreciated that there would be three main lines of German advance, on May 12th - (a) Maastricht - Tongres - Gembloux. (b) March-Dinant. (c) Neufchateau - Carignan. For delaying action from the air he gave first priority to advance (a), in order to secure the Allied advance to the Dyle - Gembloux - Namur line. The attacks by our bombers on May 12th were accordingly at first directed to this end, though in response to requests from Z.O.A.N. and the French Second Army, action against advance (c) was undertaken later in the day.

The first attack of the day against the German penetration through Maastricht was delivered soon after dawn by nine Blenheims of No. 139 Squadron, (A.A.S.F.), against a column on the Maastricht - Tongres road. It was the first time the A.A.S.F. Blenheims had been called upon, and the losses of this initial operation proved as alarming as those suffered by the Battles. Only two of the nine aircraft returned, but they were able to report that all had reached the target, and had caused considerable damage and big blocks on the road. This time the casualties were not incurred from light ground fire and a very low approach, for the aircraft bombed from 6000 - 3000 feet, but were all inflicted, it was considered, from the strong fighter opposition encountered.

Document
III/25
May 11th.

During the night of May 11/12th, B.A.F.F. Headquarters had received two messages from the Air Ministry stressing the importance attached by the Belgians to securing the destruction of a bridge over the Albert Canal some three miles south west of Maastricht. This bridge, it was said, had not been blown up "owing to the decapitation of the commanding officer by a shell which also cut off all means of telephonic communication." The bridge was situated on the Maastricht-Tongres road near Vroenhoven and, together with a similar bridge near Veldwezelt, on the Maastricht-Hasselt road, had already been made the subject of a bombardment request from the Belgians the previous day. It was known from the operations which had thus far been undertaken in this area that the place would be a hot bed of German anti-aircraft and fighter defence; and the A.O.C.-in-C. accordingly decided that the task should be undertaken by six volunteer crews from the allotted Squadron - No. 12. Each bridge was to be attacked by a section of three Battles at 0915 hours; while two Blenheim Squadrons of Bomber Command were to attack crossings and columns in Maastricht at the same time.

As general fighter cover for the two operations, it was arranged that ten A.A.S.F. Hurricanes and two squadrons from the R.A.F. Component should be provided.

May 12th

The attack on the Albert Canal bridges west of the town has been the subject of many press accounts, but the official records are meagre. It is possible that personal information may add much to what follows, but all that can be definitely established from the normal operational sources is the following.

The call for volunteers met a response from every crew in No. 12 Squadron, and it became necessary to select six by lot. One crew however subsequently dropped out, through no fault of their own, for the wireless of their aircraft proved to be unserviceable and when a different machine was tried, the hydraulic gear on the bomb racks failed to function. It was now too late for a further change of aircraft, and in consequence only five machines took off. What happened from this point onwards it is impossible to record in accurate detail, for only one aircraft survived to render a report. This machine was so badly damaged that the pilot ordered his crew to bale out near Maastricht, while he proceeded to carry out a forced landing.

From the evidence of this pilot and his observer the first section of three Battles was seen in the thick of enemy fire (whether from the air or ground is not clear) after having delivered its attack, and was then seen no more. The bridge which it had attacked was reported to be sagging in the middle. The second section of two Battles was led by the aircraft which returned: it was intercepted by some thirty Messerschmitts about twenty miles from the target, but these were fought off by the escort of three Hurricanes. Near the bridge other Messerschmitt attacked, and a fierce barrage was encountered, but the two Battles dived from 6000 to 2000 feet and released their four 250 lb. bombs. Nothing more was heard of the second aircraft, but the pilot of the leading machine stated that the bridge was seen to be already extensively damaged, and that his own bomb bursts were not observed. The observer, however, who returned later after his parachute descent, has claimed a definite success, for in a published account he states that, after the bombs had been dropped, "on looking down we saw that our bridge now matched the other." Nor does the degree of success claimed by the various summaries of operations present any less divergence, for the B.A.A.F. summary mentions a target of three bridges (which is manifestly wrong), "attacked and destroyed", while the A.A.S.F. summary records that escorting fighters "saw the bombs of the attacking Battles bursting on or near the target." Even the official citation for the Victoria Crosses awarded posthumously to the pilot and navigator of the leading aircraft of the first section (F/O Garland and Sgt. Gray) contains some curious statements, for it speaks of "a formation of five aircraft that attacked a Bridge over the Albert Canal.....", whereas in fact three aircraft attacked one bridge, and two aircraft another. It is extremely regrettable

Reproduced in
C. Gardner's
'A.A.S.F.'

May 12th

that the official records should be so confusing over an incident which has become ~~almost~~ legendary; but if there is doubt concerning the exact results there can be none about the devoted heroism displayed by the crews in undertaking a virtually suicidal task, and in pressing home their attacks to the bitter and predestined end.

The operation by the five Battles against the Albert Canal bridges had been timed to coincide with attacks on bridges and road junctions in Maastricht itself by two squadrons of Bomber Command. These were duly delivered at about 0920 - 0930 hours. These Blenheims which returned - fourteen out of the twenty four aircraft - reported that they were unable to see the result of their bombing, but that they saw bursts near the bridges. Photographs taken at the same time indicated that the two road bridges had been, in fact, already cut by demolition at the eastern end, while the railway bridge had a broken span at the western end. Repair work however had already begun on the road bridges: the Germans had built two pontoons over the Maas north and south of the damaged structures; and extensive use was also being made of pontoons over the Albert Canal. The bridge-road to the west of the town at Veldwezelt - the objective of the first section of Battles - was reported to be intact, but whether this photograph was taken before or after the Battles had attacked is not clear. The Blenheim operation, whatever else it left still unsettled, thus at least indicated several points of importance - that the Maas bridges had in fact been demolished, but that both over the Maas and the Albert Canal pontoons were being rapidly substituted. It also confirmed, by the loss of ten machines, that the reports of heavy German fighter and anti-aircraft defence over the area were not exaggerated.

The remaining attack of the day against the German thrust through Maastricht was reserved for dusk, when it was thought that the attentions of the Me. 109s might be avoided. The plan seems to have worked, for of the eighteen Bomber Command Blenheims despatched against exits at Hasselt and Tongres, only one failed to return, and this was probably a victim of anti-aircraft fire. Thirteen of the aircraft reported that they had bombed their targets successfully: at about 2045 hours the remaining four found the objective at Tongres too difficult to locate, and returned with their bombs.

That these attacks by A.A.S.F. and Bomber Command achieved something material in the opinion of the French High Command may be seen from a message despatched the following day. Air Marshal Barratt was able to signal thus to the A.O.C.-in-C., Bomber Command: "Received special message from General Georges Commander-in-Chief of the North-East Front congratulating crews of British bomber forces who successfully held up German advance yesterday from Maastricht which definitely relieved situation."

A.H.B.
 IIM/64 '1c
 App.A.73

May 12thBOMBING OPERATIONS: (b) In the Ardennes.

While the morning of May 12th was devoted to checking the German progress beyond Maastricht, the afternoon attacks were concerned with the advances through the Ardennes, which were seen to be assuming increasingly serious proportions. In response to a request from the French Second Army a section of Battles was **directed** against a pontoon bridge over the river Semois near Bouillon. The section reported that they managed to evade enemy fighters over Sedan, and to bomb from 20 feet an old concrete bridge under repair. They considered that its destruction had been achieved; and certainly the three crews had the satisfaction of taking part in the first A.A.S.F. bombing operation to be carried out without loss.

Another task undertaken in the surrounding area was an attack by six Battles on advancing German columns at about 1500 hours. Large enemy forces were found, and were bombed and machine-gunned from 100 feet near Bouillon, on the road from Paliseul, and near Neufchateau, on the road to Bertrik. In spite of fighter cover, two of the Battles were lost, possibly from the machine guns seen to be mounted on every German vehicle. Such considerable forces were this time observed that a further attack was then ordered north of Bouillon, in the hope of creating a road block. Six Battles left, to operate under fighter cover over the area at 1645 - 1715 hours: but only two returned. Neither of these observed the results of their bombing, which was carried out from 1000 feet. They saw no enemy aircraft in the vicinity, but met with fierce pom-pom, rifle and machine-gun fire, which was apparently responsible for all our casualties. It is interesting to note that just before this operation B.A.F.F. suggested to A.A.S.F. that their bombing should be carried out from a greater height than previously, in order to avoid losses: A.A.S.F. Headquarters, however, apparently replied that light flak was effective up to the greatest height from which they could bomb accurately, and that therefore no useful purpose would be served by a higher attack.

A.H.B.
IIH2/467
May 12th
1620 hours.

Document
II/14
May 12th

The attacks in the Bouillon area, like those near Maastricht, were greatly appreciated by G.Q.G., who apparently considered that the operations had "checked the German advance and saved a serious situation." The feeling of relief at G.Q.G., however, was not to last long. Moreover, whatever delay had been imposed on the German forces by the A.A.S.F. bombers since May 10th had been achieved at a prohibitive price, for on May 10th 40% of sorties on May 11th 100% of sorties, and on May 12th 62% of sorties had been lost, while considerable damage had usually been inflicted on other **aircraft which returned**.

May 12th

Document
II/13
May 12th

It was therefore not surprising that a message was despatched to Air Marshal Barratt that evening from the Chief of Air Staff, stressing the need for a greater economy in the use of our force. "I am concerned at the heavy losses incurred by the medium bombers", the signal stated, "...I must impress on you that we cannot continue indefinitely at this rate of intensity If we expend all our effort in the early stages of the battle we shall not be able to operate effectively when the really critical phase comes"

BOMBING OPERATIONS: (c) By Night. German Communications West of the Rhine: Waalhaven aerodrome

The bombing programme for the night of May 12/13th was very limited. The reason for this may be seen in a signal from Air Ministry to Bomber Command despatched at 1430 hours, May 12th: "...You should be prepared to put into effect plan W.A.4 (c) night 13/14 May. ... You should aim to carry out highest possible scale of attack on this night.....in consequence scale of effort to-night should be reduced to absolute minimum required to meet collaboration plan....." Thus the Air Staff was apparently hopeful of securing Cabinet permission during May 13th to open the attack on the Ruhr, and the operations of May 12/13th were consequently limited to a dozen sorties. Of these six Whitleys were despatched against communications in and near the same German towns as the previous night - Cleve, Munchen-Gladbach, and Wesel - through which the advance into Holland and North Brabant was supplied: only four of the aircraft, however, delivered their attacks. In addition, six Wellingtons were directed against communications in the nearby town of Krefeld - Uerdingen, and five of these claimed to have identified and bombed the target, but without observing results. Fifty per cent of the bombs dropped were delayed action from three to twelve hours. Once again, night proved an effective cover for our operations, and none of the bombers was lost.

Coastal Command, which had thus far been co-operating by reconnaissance, by escort work, by minelaying and by exploding German magnetic mines with D.W.I. aircraft, on this night ~~carried~~ out its first bombing operation of the campaign. Six Beauforts of No. 22 Squadron and nine Swordfish of No. 815 Squadron were ordered to take off from Bircham Newton at sunset and attack Waalhaven aerodrome. Nothing very spectacular in the way of results could be observed.

FIGHTER OPERATIONS AND REINFORCEMENT:

(a) Coastal and Fighter Commands.

Protective patrols in the Hook of Holland area, combined with reconnaissance, were flown by Coastal

May 12th

Command aircraft. Three Blenheims of No. 235 Squadron, patrolling at 0800 hours over the Hook to protect our destroyers disembarking a force of the Royal Marines, were attacked by eight Me.109's; two of the Blenheims in consequence failed to return, though the Me. 109's also suffered one or two losses.

A later patrol by three Blenheims of No. 254 Squadron to protect an ammunition ship at Flushing observed at about 1145 hours some twenty four Ju.88's and Me.111's attacking the ship and the jetty. The Blenheims engaged some of the enemy, but were unable to claim any definite success.

Fighter Command's work on May 12th in connection with the campaign was limited to three patrols in the same area. One of these, however, marked an innovation, for Defiants were used, mingled with Spitfires - the first occasion on which either type of aircraft had operated along the continental shores. The patrol, which was presumably in the nature of an experiment, consisted of three pairs of Defiants flying behind three pairs of Spitfires. At 1410 hours it encountered a He.111 bombing a destroyer from 7000 feet, chased the German machine inland, and had the satisfaction of seeing it crash five miles South of the Hague.

FIGHTER OPERATIONS: (b) R.A.F. Component Operations and Reinforcement.

A.H.B.
IIH2/585A
12/5/40

The activity of the R.A.F. Component fighters is again very ill documented. The A.O.C. at 0615 hours indicated that Air Marshal Barratt had asked him to put up the strongest possible fighter effort to prevent the Belgians breaking. It was therefore decided that fifty per cent of effort should be put along the line Diest - Tirlemont, while the remaining fifty per cent should be employed as escort to the bombing operations against the bridges in and near Maastricht. This division of labour cannot be fully traced in the records which remain, though there are hints which confirm it. The only squadron which has left a detailed record is No.3, flights of which carried out five forward patrols during the day - Louvain - Diest, Diest - St. Trond (twice), and Louvain - Wavre (twice). During the Louvain-Diest patrol, at some time between 0725 and 1000 hours, the flight encountered a force of some fifty or sixty German bombers, including Ju.87s, Do.17s and He.111s, and of these the Hurricanes claimed five Ju.87 and one He.111 destroyed conclusively. No. 79 Squadron by agreement with the French moved up during the day from Mons-en-Chaussée to Norrent Fontes, where it was far more conveniently situated for operations over Belgium; there is no record of its having carried out forward patrols or cover duty for bombers on this day, though it may well have done so, for one pilot baled out 'just behind the German lines.' Nos. 607 and 165 Squadrons have left no detailed record of their activity, though the former probably formed part of the Maastricht cover. No.87 Squadron has also left no record: of No. 85 it is

May 12th

recorded that they brought down seven bombers, that one of the squadron pilots baled out behind the German lines, and that he subsequently traversed these to report 'valuable information to a British unit.' Thus the squadrons have preserved virtually no account of their work on this important day: little more is to be added from R.A.F. Component headquarters, save that up to 1800 hours 31 patrols had been carried out, involving 110 aircraft, and that 18 enemy aircraft had been destroyed for the loss of 5 Hurricanes.

By way of reinforcement to the R.A.F. Component No. 504 Squadron flew across from England and at about 2000 hours landed at Vitry and Bapaume, whence it moved the following day to Lille - Marcq. This brought the reinforcing squadrons up to the agreed total of four, and the total number of British fighter squadrons in France to ten. It will be remembered that the original reinforcement plan had envisaged two squadrons joining the A.A.S.F. and two the R.A.F. Component, and that of these one had joined the former and two the latter on May 10th. The Hurricanes in the B.E.F. area, however, were so hard pressed that by agreement between Lord Gort and Air Marshal Barratt, No. 504 Squadron now joined the R.A.F. Component, thus giving it seven of the ten Hurricane squadrons. A further degree of reinforcement was, however, urgently demanded by all the main parties interested in France: the history of their appeals for 'more fighters' is subsequently related. *

FIGHTER OPERATIONS: (c) A.A.S.F.

The A.A.S.F. fighters on May 12th were engaged, as before, on protective cover duty for the Battles, and on patrols for local defence. In the latter category several successes were scored, particularly by No. 501 Squadron, which claimed the destruction of almost a dozen enemy aircraft, nearly all bombers.

Among the protective patrols to Battles was that over Maastricht by eight aircraft of No. 1 Squadron, intended to cover the bombing operations against the bridges. Seven Me. 109, two He.112 and seven Hs. 126 were engaged over the target area, and at least two Me. 109 were reported shot down, for the loss of one or two Hurricanes. The Battles were not seen by the Hurricanes over the Maastricht area, but their bomb bursts were observed 'on or near' their selected objectives. In the afternoon, cover was provided by flights of No. 73 Squadron for the two operations by Battles against convoys near Bouillon and Neufchateau. Once again there was little real liaison between our bombers and fighters, as may be seen from the fact that on both occasions the latter chased a Henschel for some distance. The Hurricanes were, in fact, not at this stage being used as close escort at all, but as a general protective force over the target area, along the principle

* See pages 215, 236-245, 246-364, 368, 385, 389

May 12th

crystallised in the First World War of "fighting the enemy out of the sky". For this onerous duty our patrols, at rarely more than flight strength, were of course painfully weak in number, if strong in the virtues of the aircraft and their pilots. In all during the day the A.A.S.F. fighters seem to have flown about 10 patrols, involving some 36 aircraft: their total claims amounted to about twenty one enemy aircraft destroyed, for the loss of three Hurricanes.

GERMAN AIR ATTACK

Aerodromes were still attacked by the Luftwaffe, but on an evidently declining scale. About a dozen French and several Belgian aerodromes seem to have been bombed or machine-gunned during the day, aircraft on the ground up to ten in number being destroyed in two or three instances. Five of the A.A.S.F. aerodromes, and at least one of the R.A.F. Component, were also attacked by small enemy formations, but the damage seems to have been extraordinarily slight. In general there is no doubt that the Luftwaffe was now turning its attention from aerodromes to communications principally in the immediate rear of the Allied forces, coupled with intensive dive-bombing of forward allied forces at selected points. The scale of attack was particularly heavy against Namur and the Belgian and French troops in its vicinity. The enemy bombing was not directed to any appreciable extent against the B.E.F., and did not impede its move forward.

MAY 13TH

MILITARY SUMMARY.

Holland: The Germans continued to land airborne forces in the Rotterdam - Hague area; while the land armies advancing from the East penetrated the main Dutch defences north of the Waal at Wageningen, and south of the Waal pushed the French Seventh Army back in a helter-skelter retreat from its advanced positions. The defeat of General Giraud's advanced forces was said to have occurred through their shortage of ammunition - in itself a commentary on the decision to meet the enemy so far forward. With little pause the French were now driven back through Breda and forced to execute a great withdrawal on the left, so that by nightfall they were retiring with the Belgians who had been defending the Turnhout area to the general line Herenthals - Bergen-op-Zoom. This, however, was still in advance of the main Antwerp - Scheldt line of defence.

Doc.No.6. During the morning of May 13th there were
 Section I several indications that the Dutch were now thinking in
 13/5/40. terms of capitulation. The Dutch Prime Minister signalled London to the effect that if the German advance were not immediately stopped with the help of Allied support, the struggle would have to end. At a conference with the British attaches at the Hague this statement was reinforced by the Dutch Commander-in-Chief, who declared that the Dutch air force no longer existed, and that the position was hopeless unless complete air support were forthcoming at once. The gravity of the situation now necessitated the evacuation of Queen Wilhelmina in a British warship.

Doc.No.8.
 Section I
 13/5/40.

Belgium and France: To the North the knock taken by the French Seventh Army has already been mentioned. Below General Giraud's forces the main part of the Belgian Army was moving back to the position Louvain - Antwerp - where they would come between the French Seventh Army on their left, and the B.E.F. on their right. Both Lord Gort and King Leopold had now agreed to accept co-ordination by General Billotte, so that the whole series of armies from Northern Belgium to the left of the Maginot Line came under one direction. No great hopes of any very spirited action on the part of the Belgians seem to have been held by General Needham, the head of the Military Mission with Belgian G.Q.G., who on this day signalled to B.A.F.F..... "....I feel no confidence in their really fighting. The C.G.S. is a fussy windy yesman quite unfit for driving a partially unwilling army. I am certain that unless strongly supported by French or British troops this army cannot be relied on. The prevailing spirit denotes no wish for action if withdrawal can be effected....."

Doc.No.3.
 Section II
 13/5/40.

The B.E.F. were again not yet engaged to any extent, but in front of their Wavre - Louvain position the German pressure was heavy at Tirlemont, whence the Belgians were withdrawing to the North-West and the French to the South-West. The French First Army was now preparing to give battle on its chosen line of Namur-Gembloux-Wavre, its advanced forces having been compelled to retreat towards this..

Thus far, though there was much that did not

May 13th

augur well, the land forces of the allies were not yet engaged on their chosen positions between Namur and Antwerp: but to the south of Namur events now occurred which were to bring about unparalleled disaster. In the early hours of May 13th German forces achieved a surprise crossing of the Meuse at Houx, a few miles north of Dinant in the sector held by the French Ninth Army. The enemy soon established himself firmly on the left bank of the river. Moreover the Germans repeated this success on a far bigger scale further to the south, on French territory, for by the end of the day it was clear that the threat to Sedan had materialised. The Germans in fact had attacked this sector on a ten mile front between Douzy and Vrigne-sur-Meuse and had crossed the Meuse near Sedan to a depth of several miles. Thus began the penetration of the French defensive line which within a week allowed the Germans to sweep forward to the Channel at Abbeville, and to cut in twain the allied armies. The news in its full gravity was reported to Air Marshal Barratt in the late evening of May 13th: before midnight the A.A.S.F. were in consequence given warning of operations of vital importance on the following day, and were at the same time instructed to consider plans for a move in the event of a German break-through.

RECONNAISSANCE.

The R.A.F. Component Lysanders again flew contact patrols over our own troop positions, together with some sorties to observe enemy movement. One of the latter, ordered to observe enemy movement east of Louvain, failed to return, while two others were fired on at Tirlemont. No. 16 Squadron was apparently ordered to prepare to execute bombing attacks (with 12 x 40 lb. bombs) the following day: what particular threat this was meant to cater for is not recorded.

Strategical and photographic reconnaissance by the Blenheims was hampered by low cloud and fire from the ground: of five photographic sorties by No. 52 Wing, for example, four returned on account of low cloud, and of three strategical sorties one was lost and two returned damaged. No. 70 Wing lost one out of three strategical reconnaissance sorties: another at about 1900 hours was attacked by ground fire continuously from three miles east of Hannut until nearly at Gembloux. It is not possible to ascertain precisely the degree to which this damage was inflicted by allied troops.

The French carried out several reconnaissances, but the results have not for the most part survived in the British records. It would seem that a French pilot who for some unspecified reason landed at Amifontaine (No. 12 Squadron) was among the first to bring news to the British air forces of the crossing of the Meuse north of Dinant. The A.A.S.F. in consequence enquired of B.A.F.F. whether the small parties of Germans observed on the left bank should be classed as 'opportunity targets' and attacked. Three-quarters of an hour later - at 1935 hours - the answer was given that this movement was not to be attacked. The reason for returning a negative was not recorded; probably the targets were considered unsuitable, or else action was left to the French, who operated with a few bombers in this area before midnight.

BOMBING OPERATIONS. (a) Near Breda.

The bombing operations carried out on May 13th were of a very limited character, for only one attack was delivered by British aircraft during the day. The explanation appears to lie in the losses already suffered by the A.A.S.F., the difficulty of establishing a safe bombing-line in the North, and the necessity for holding something in reserve against events in the South.

From the early morning the necessity and possibility of attacking targets in Holland was discussed. At 0535 hours, for example, a message was received at Chauny from Air Ministry to the effect that the Germans had penetrated the main Dutch line between Wageningen and Rhenen, and that only air bombardment could prevent a break-through. An aircraft of No. 212 Squadron was promptly sent off to secure photographs of the area, but was unable to do so on account of low cloud; and the project of supporting the Dutch retreat was abandoned by 0745 hours, when the French appear to have advised against it.

By this time the French Seventh Army retreating towards Bergen-op-Zoom was in awkward straits, for certain of its elements appeared likely to be cut off by a German tank force advancing south from Breda towards Antwerp. In consequence of this information a force of seven Battles of No. 226 Squadron was despatched to deliver an attack at about 1030 hours, when a Hurricane squadron from the United Kingdom was to supply fighter cover over the area. The pilots of the Battles were briefed on the vital importance of stopping the enemy column, and the road junctions of Boeimeer (one mile south-west of Breda) and Rijsbergen were given as probably the most profitable points of attack. The Battles, however, though they saw German bombers in the vicinity North of Antwerp, failed to discover any sign of enemy troop movements on the roads indicated, and they therefore bombed a factory at Boeimeer, and brought it down across the road junction. They do not appear to have encountered any opposition in doing this, but the French were keenly appreciative of the military effect of the action, which "enabled them to take up their positions without difficulty." Presumably in consequence of this testimony No. 226 Squadron also received special messages of congratulation from Air Marshal Barratt and the Chief of Air Staff. No further operations were carried out during the day by the A.A.S.F., and the Blenheims of Bomber Command were not called upon at all.

See entry
of 1920
hours;
13.5.40.
North BAF
Form 540.

BOMBING OPERATIONS (b) By night. Communications in Germany West of the Rhine and in Holland:

Bombing operations during the night of May 13th were also on a minor scale. Six Hampdens were despatched to attack communications at Aachen and Eindhoven, but only three aircraft claimed to have bombed the targets. The remaining three, jettisoned in the sea or returned with their bombs as they were unable to locate their objectives. Six Whitleys which were directed against Maeseyck, Eindhoven, and Maastricht (to interfere with the repair of the bridges and to hinder traffic over them) reported an even greater proportion of ineffective sorties. Of the six aircraft, one returned early with engine trouble, three failed to identify their target and brought back their bombs, and only two actually attacked their objectives. One of these, however, claimed a direct hit on a railway bridge at

/Hollandschdiep.

MAY 13th.

See entry
for 2045
hours.
13/5/40.
Bomber
Command
Form 540.

Hollandschdiep. Seven out of twelve sorties wasted was certainly a discouraging feature of the night's work, the more so in that North B.A.F.F. Headquarters had agreed that the aircraft might attack any military objective rather than jettison or return with their bombs.

FIGHTER OPERATIONS AND REINFORCEMENT: (a) Fighter Command;

Fighter Command operated twice over the continent on May 13th. No. 56 Squadron (Hurricanes) supplied cover for the attack by the A.A.S.F. Battles near Breda during the morning, but encountered no enemy aircraft; and a flight each of Nos. 66 (Spitfire) and 264 (Defiant) Squadrons carried out an early morning attack on enemy troop transports along the Dutch coast north of the Hague. The Spitfires and Defiants were met with both German and Dutch anti-aircraft fire, but proceeded to engage a number of Ju. 87's found bombing near Streefkerk. They claimed four of the enemy dive-bombers, but were themselves set on by about twenty seven Me. 109's, in consequence of which, though one Me. 109 was probably destroyed, five out of the six Defiants were shot down. This was the first occasion on which Defiants had encountered Me. 109's; the British aircraft were undoubtedly outnumbered, but the result of the combat gave a clear indication that the Defiant, whatever it might do to enemy bombers, would be hard pressed to defend itself against single-engined fighters.

During the day, in consequence of events recorded below, three or four Hurricanes and pilots of several Fighter Command squadrons, to a total of thirty two aircraft, and pilots, were ordered to proceed to France.

FIGHTER OPERATIONS AND REINFORCEMENT: (b) R.A.F. Component

The R.A.F. Component fighters were engaged on tasks which have not been recorded in any detail, but which seem, in general, to have followed the established pattern of aerodrome and area defence, together with forward patrols for the benefit of the B.E.F. No. 85 Squadron, for instance, was heavily engaged during the day near Lille, and claimed several victims, while No. 3 Squadron on forward patrol Wavre-Louvain claimed four enemy bombers destroyed during the morning. In the afternoon two Hurricanes of this squadron unfortunately collided, with the loss of both aircraft and pilots. At the request of General d'Astier a squadron patrol was apparently carried out forward of the B.E.F. positions, on a line stretching from Tirlemont, ten miles north of the town; but there is no detailed record of this. The operational summary for the twenty four hour period ending 1800 hours, May 13th, mentions 18 patrols, involving 64 sorties, carried out by the R.A.F. Component fighters with a total of eight enemy aircraft destroyed. R.A.F. Component Headquarters, however, more than once complained of the lateness or absence of returns from units, and it is probable that these figures are not entirely reliable.

IH2/371
N. B.A.F.F.
Summary of
Ops.
13.5.40.

R.A.F.
Component.
Form 540
13/5/40.

Whatever the exact figures of patrols and successes, it is certain that the R.A.F. Component fighters

May 13th

were, like their comrades of the A.A.S.F., having an extremely strenuous time. The question of reinforcement had therefore, arisen once more with increased urgency, the more so in that our bombers and reconnaissance aircraft had shown themselves to be extremely vulnerable without fighter cover. The absence of operational returns had apparently precluded any decision in London to send reinforcements on May 12th, but during May 13th all parties in France pressed the authorities at home to release further fighter forces. Air Marshal Barratt himself spoke to Air Ministry, and apparently gave Air Vice Marshal Blount, (A.O.C. R.A.F. Component) a free hand to add his own arguments. In addition Lord Gort sent a personal telegram of appeal to the Secretary of State for War (Mr. Eden). The result of these representations was that a total of thirty two Hurricanes and their pilots were detached from various squadrons in England, and ordered to France in the afternoon, where they were distributed among the R.A.F. Component fighter squadrons. In addition a promise was given that the deficiencies in the existing Hurricane squadrons in France would be rapidly made up. The despatch of the thirty two Hurricanes, if taken in conjunction with the diversion of No. 504 Squadron to R.A.F. Component the previous day, left Lord Gort and Air Vice Marshal Blount one squadron down on the four extra they had demanded; and the clamour for further reinforcement was naturally to continue.

FIGHTER OPERATIONS: (c) A.A.S.F.

The A.A.S.F. Hurricanes continued their patrols for aerodrome and local defence, but on this day were not called upon to cover any bombing operations. In the twenty four hour period ending 1800 hours they flew 15 patrols, involving 69 sorties, and claimed at least nine enemy aircraft destroyed for one Hurricane written off after a forced landing. Enemy formations of thirty or so aircraft (chiefly Heinkels and Dorniers, escorted by Me.110s) were engaged on two occasions, near Reims at 0600 hours and near Vouziers at 0700 hours: an effort to intercept a force of nineteen bombers reported over Sedan at midday was, however, unsuccessful. In the evening a smaller formation of Dorniers and Me.110 was successfully attacked near Le Chesne, and between these periods frequent interceptions were made of isolated enemy aircraft, possibly stragglers from some bigger force. The most picturesque, if unorthodox, incident of the day was when a Hurricane pilot landed beside a Heinkel he had shot down, and took prisoner the entire crew of the German bomber.

GERMAN AIR ATTACK

The German assault on aerodromes had already slackened off perceptibly on May 12th: by May 13th the change of objectives was still more evident. Ineffective attacks were made on the A.A.S.F. aerodromes of Bétheniville^x and Berry

^x Trouble arose with the local population because no public warning had been issued, and the R.A.F. had to place a guard over the warning hooter in order to prevent the populace sounding it indiscriminately. See Documents for May 13th. (Attacks on a/d's of No.75 Wing.)

MAY 13TH

e.g.

Paul Alard:
Le Verite
sur ...
L'Affaire
Corap.

au-Bac, and some French aerodromes (notably Dijon) suffered rather more severely, but in general the German plan was clearly now to attack centres of communication. Another class of target existed, however, for the Ju.87's. There is, naturally, little mention in the British records of any enemy air attacks on French front-line troops, but unofficial sources make it clear that the broad attack on communications was combined with special assaults by the dive-bombing force against certain positions, in particular along the Meuse in the sector held by the French Ninth Army. The casualties to personnel from the front-line dive-bombing were seen to be very small, but the moral effect was great; moreover, the Ninth Army was largely dependent on horsed transport, and the casualties among the horses were extremely heavy. The Ninth Army was, in addition, composed largely of "Reserve" and colonial troops, and its anti-aircraft defences were negligible. Thus the German tactical air assault against General Corap's men was cleverly conceived from both moral and material aspects, and there is little doubt that it powerfully assisted the capture of bridgeheads over the Meuse against positions which, if held by resolute and well equipped troops, should have been capable of indefinite defence.

The tactical blow against selected positions on the Ninth Army front was however, subsidiary to the main trend of German air efforts from May 13th onwards. This was undoubtedly directed against communications. The bombing ranged over a considerable area, and covered important centres in the North such as Flushing, Rotterdam and Antwerp, as well as vital towns on the front of the Belgians, B.E.F. and French First Army, such as Louvain and Namur. The main weight, however, seems to have been spread over a number of towns and railways in North East and Eastern France, for damage was reported at or near Chalons-sur-Marne, Epernay, Reims, Hirson, St. Michel, Givet, Brienne-le-Chateau, Vouziers, Suippe, Phillippeville, St. Dizier, Ste. Mennehoult, St. Mihiel, Vitry le Francois, Strasbourg, Troyes, Luxeuil and Luneville. These were nearly all localities not in the battle front itself, but within a distance of a hundred miles from it: and the disposition of objectives suggests that the Germans were aiming at severing contact between the First Group of Allied Armies in the North and the troops of the Maginot Line in the East. Nearly all the available mechanical transport of the French had been concentrated with the former, and the latter, who had not been expected to play a mobile role, were largely dependent on their horses and the railways. The German attacks thus lessened any possibility of the French switching forces from one part of the front to the other, and helped to create the necessary conditions in the rear for the development of the break-through which was now occurring near Sedan. The German intentions are necessarily at present matters of supposition and deduction, but the British A.O.C.-in-C. was, and is²², firmly convinced of the truth of the above interpretation, and the existing evidence accords well with his views.

* In conversation with the narrator, 9.11.43.

MAY 14th

MILITARY SUMMARY:

Holland: The resistance of the Dutch was now virtually in its final stages. They had gallantly held the dyke over the Zuyder Zee, and with British naval help had prevented enemy vessels crossing these inland waters, but the struggle had been decided against them in the centre and south of the country. The German hold on the Moerdyk bridge, coupled with the strength of their advance through North Brabant, enabled them to pour forces into the heart of the country, there to link up with the airborne troops who had proved so potent a nuisance from the first hours of hostilities. In order to speed the process of Dutch submission, two groups each of twenty seven German aircraft now delivered a systematic assault against the centre of Rotterdam, while the ultimatum demanding the surrender of the town had still nearly three hours to go. In the absence of many opposing fighters (the Dutch Air Force having by now perished almost to the last machine) this thoroughly Tuetonic lesson was extremely effective, for the death-roll of civilians ran into many thousands, and the same fate appeared likely to be visited upon Utrecht and the Hague if resistance were prolonged. The Cabinet had by now joined Queen Wilhelmina in England, and General Winkelman, left with the decision in his hands, bowed to the inevitable. By the following morning, May 15th, the Dutch forces had been ordered to lay down their arms except in the as yet unconquered province of Zeeland, where the struggle was to continue for some days to come.

Doc.No.
II/8
14/5/40.

Belgium and France: The advanced forces of the French Seventh Army had by now been virtually expelled from North Brabant, and were falling back to cover Antwerp on the North and East. The intention at first seems to have been to form a covering line from Putte through Calmpthout and Brecht to join the Belgians at Lierre. Enemy pressure (by the Ninth Panzer Division) seems however to have prevented this, and later on in the day General Giraud was described as endeavouring to disengage, with the object of standing in reserve behind the Belgians on the Antwerp-Malines position. On the right of the retreating Seventh Army the Belgian line began at Wyneghem (a few miles east of Antwerp) and continued through Lierre to Louvain. Here the B.E.F. took over, and continued the line south to Wavre. On the whole of the Belgian and British sectors there was very little contact on May 14th.

Doc. No.
II/19
14/5/40

South of the B.E.F. positions, the French First Army carried on the line through Gembloux to Namur, but the latter town, which had been subject to much bombardment from the air, was in some danger of capture. It was not on the First Army front however, that the situation became really critical, but to the right in the sectors of the Ninth and Second Armies. The bridgehead over the Meuse at Houx (north of Dinant) captured in the early hours of May 13th, was maintained by the enemy, who was now across the river line on a ten-mile front: and the left centre of the French Ninth Army, demoralised by dive-bombing and in any case of no great efficiency, was too disorganised to restore the situation. Worse still, the situation in the Sedan area, in spite of the great effort by the air forces, was not retrieved. The French reported, indeed, that the Germans

/had

MAY 14th

Doc. No. II/23
14/5/40.

Doc. No. 9.
22/6/40.

had been 'thrown back' on Sedan as the result of a counter-attack following our air assaults, but the check administered was very temporary in its effects. The whole defences here were now prised entirely open: south west of Sedan, in the Sector of the Second Army, the enemy crossed the Ardennes Canal near Omicourt to take the defenders of Mézières in the rear: and though elements of the Ninth Army still clung to the Meuse both at Mézières and at Fumay, they were outflanked to north and south. In general, it was clear by the end of the day that the Germans had extended rather than abandoned the bridgeheads they had secured on the 13th, and that, except at a few points, the French national line of defence along the Meuse was crumbling over a front of some sixty miles - from Houx to Remilly (South of Sedan). The break-through achieved, the stage was thus set for the exploitation: and the following day (May 15th), with virtually nothing to stop them, the Germans began their race west towards the Channel.

RECONNAISSANCE.

With the closing of the distance between the advancing Germans and the B.E.F. along the Dyle, Lysanders began to carry out their true role of reporting on enemy movements. No. 26 Squadron, acting directly for G.H.Q., carried out six contact patrols from the landing ground at Arras, and brought back useful information, though two aircraft were lost in the process. An evening patrol was also carried out over rear B.E.F. positions to observe possible parachute landings by the enemy - a commentary on the extent to which the German tactics in Holland had aroused apprehension. The Lysander Squadrons detached to Corps control - Nos. 13, 4 and 2 (for I, II, & III Corps respectively) began to move to Belgian advanced landing grounds. No. 4 Squadron provided valuable information during the day, but from its six or seven tactical reconnaissance sorties two aircraft failed to return.

Docs. for
May 14th:
Ops. of No.
52 Wing RAF
Component.

Reconnaissance at medium depth was carried out by the R.A.F. Component Blenheims. A 'Special Sortie' was provided by No. 59 Squadron for Air Marshal Barratt's requirements, to cover the situation in the North: the fighters detailed to escort it, however, arrived at the appointed aerodrome without maps, and were unable to take off at the same time as the Blenheim. It is not clear whether they regained contact with it, but certainly the Blenheim failed to return. Another Blenheim which flew over the northern front was able to report groups of German infantry, artillery and tanks reaching from Breda some ten miles along the route towards Antwerp: and the French Seventh Army expressed its gratitude for the sortie, which, on account of trees overhanging the road, had to be executed at an extremely low altitude. Five Blenheim sorties were also carried out at a depth of about thirty miles in front of the main Belgian and B.E.F. positions, and useful details of the enemy advance into Belgium were secured. Fighter escort was detailed for at least two of these sorties, but in one case 'lost' the Blenheim to be protected.

Docs. for
May 14th:
Ops. of No.
79 Squadron,
R.A.F.
Component.

/In

MAY 14th

North
B.A.F.F.
Summary of
Ops.

In the region of the all-important break through on the Meuse, reconnaissance was largely in the hands of the French, who put four or five sorties on to this area. The British, however, supplied additional information, for though Air Marshal Barratt's first 'Special Sortie' was apparently lost, an A.A.S.F. Blenheim later reconnotired the road from Bouillon to Sedan, and the Meuse from Sedan to Mouzon: and in addition some of the bombers who returned from the day's costly attacks brought back reports of value.

BOMBING OPERATIONS: (a) Near Breda.

The great events of the day occurred in the Sedan area, but one operation was carried out to relieve the pressure on the French Seventh Army in the North. Following requests from General Giraud, and reconnaissance both French and British, North B.A.F.F. Headquarters ordered six Bomber Command Blenheims to attack enemy communications at Breda, with the secondary task of bringing back information of the forces advancing along the Breda - Rosendaël road. The executive order was given from Chauny at 1100 hours, and by 1121 the aircraft had taken off from Watton - a particularly fast piece of work, possible only because preliminary warning of the probable objectives had been given some time beforehand. Hits were secured on roads in the eastern outskirts of Breda, and on the Tilburg - Breda railway line, and two enemy columns were accurately pinpointed. Anti-aircraft fire was heavy, but only one enemy fighter was encountered, and the Blenheims enjoyed the rare fortune of losing none of their company.

BOMBING OPERATIONS: (b) Near Sedan.

May 14th witnessed the biggest series of daylight bombing attacks carried out by the Royal Air Force during the campaign, and therefore deserves to be recorded in some detail. The seriousness of the situation resulting from the German crossings of the upper Meuse, it will be recalled, had been communicated by the French to Air Marshal Barratt the previous evening, and already warning had been given to the A.A.S.F. that arrangements would have to be made for a possible move. Shortly before midnight on May 13th the A.A.S.F. was ordered to attack at first light the following morning the three pontoon bridges reported in the Sedan sector and the two pontoon bridges reported in the Dinant sector. The targets were to have equal priority, but three half-sections were to attack the former, two half-sections the latter. During the night, however, the projected operation near Dinant was cancelled, when news was received that the bridges here had been destroyed by the French. The night also saw attacks by five French bombers against convoys on the Ciney - Dinant road, and by twelve French bombers against movements on the roads leading into Sedan from the North and East.

At first light on May 14th the attack against pontoon bridges in the Sedan sector was duly delivered by six Battles of No. 103 Squadron. Four bridges were pinpointed over the Meuse, and one over the Chiers within a six mile radius of Sedan. A hit was claimed

/on

MAY 14th

on one bridge, a mile north of Villers; other bridges were attacked, but with no more definite claims than near misses. Fighter cover was supplied, but no enemy aircraft were encountered, and the enemy anti-aircraft fire, intense though it was, was not as deadly as usual. All the six Battles returned safely, though one wounded pilot was compelled to carry out a forced landing near his aerodrome.

Utilising the information brought back from this first operation, two Battles were now (c. 0700 hours) ordered to attack the large pontoon bridge one mile north west of Romilly-Allincourt, and two further Battles the pontoon bridge joining the island one mile north of Villers. The Battles (of No. 150 Squadron) found the former structure, and saw their bombs explode within five or six yards of it, but were unable to report more positively on results. The second bridge was not found, but troops were attacked in the nearby village of Mairy. Fighter cover was again provided (apparently by the French), and in spite of much light anti-aircraft fire none of the four bombers was lost. The A.A.S.F. had thus by 0900 hours carried out ten sorties without loss against a category of target which had proved ruinously expensive during the previous days. At about 0900 hours the French also delivered a low flying attack in the Sedan area, but the numbers of aircraft engaged and the details of results are not recorded.

Before midday the A.A.S.F. had received orders to prepare for an operation in a different area against enemy columns near Breda, but at 1215 hours Air Marshal Barratt gave preference to an attack against what was now reported as a major thrust in the direct of Dinant. This in turn was cancelled in favour of repeated operations in the Sedan area, which were now, in response to requests from the French and in conjunction with them, ordered on the largest possible scale.

The details of the Franco-British collaboration have not survived in the British records, but much is contained in a signal from Air Marshal Barratt to the Chief of Air Staff, despatched at 1405 hours, half an hour after the A.A.S.F. had been ordered to bring every bomber they could to the shortest possible notice. The message indicated that there had been a grave deterioration of the situation in the Sedan area, as the French had been strongly attacked before their proposed counter-attack against the earlier penetration /could

Reports on
A.A.S.F.:
Resume of
Operations,
May 14th.

Doc. No. 1141
May 14th.

* It is not clear by whom. Orders were given to 67 Wing to supply cover, and one of the Wing Squadrons (No. 73) certainly put up a patrol near Sedan at this time (0500 hours). The Squadron, however, speaks of covering Blenheims, not Battles (although no Blenheims were operating in the vicinity!); and the Battles who carried out the raid refer to an escort of Potez - a good example of conflicting detail in records.

MAY 14th

could be launched. The enemy pocket across the Meuse on a fourteen mile front with Sedan at its centre had now been enlarged, and extended in breadth from Vrigne-sur-Meuse to Mouzon, and in depth some ten miles south-west of Sedan (to a line Vendresse - La Neuville - La Besage). General Gamelin and Georges had requested the maximum assistance in his power, Air Marshal Barratt explained, and the plan was now for waves of attack by bombers at approximately three-hourly intervals. Four waves in all were projected, by the French and the A.A.S.F. alternatively, the first French attack (with 40 bombers, supported by 40 fighters) having been delivered at about 1230 hours. Air Marshal Barratt also indicated that compared with the threat near Sedan the serious thrust towards Dinant must now be regarded as of secondary importance, and that in spite of appeals by the French and by No. 3 Mission, no further effort could now be spared in the Breda area.

The first wave in the new programme of attacks had, as Air Marshal Barratt explained, been delivered by the French at about 1230 hours. The Air Marshal referred to forty bombers, and possibly this is the correct figure: the only record preserved is the 2 ième Bureau Communiqué, in which the figure for sorties adds up, not to forty, but to nineteen. No results are available by which the French effort can be compared with the British. It was then the turn of the British, whose attacks were arranged by the A.A.S.F. to take place according to the following programme -

Bridge No. 1 (South of Sedan):	: by 4 a/c at 1500 : 3 /o at 1520-1530 : & 4 a/c at 1535-1545 hrs
Bridge No. 2 (Romilly)	: by 4 a/c at 1410 : 4 a/c at 1520-1530 : & 4 a/c at 1535-1545 "
Bridge No. 3 (Douzy)	: by 4 a/c at 1500 : 4 a/c at 1520-1530 : & 3 a/c at 1535-1545 "
Bridge No. 4 (near Mouzon)	: by 4 a/c at 1510 : & 4 a/c at 1535-1545 "
Bridge No. 5 (near Mouzon)	: by 4 a/c at 1500 : 4 a/c at 1520-1530 : & 4 a/c at 1535-1545 "

In addition columns on the road from Bouillon through Givonne to Sedan were also to be attacked at approximately 1500, 1520-30 and 1535-1545 hours, by forces of five, eight and ten bombers respectively. The full programme thus put all A.A.S.F. bombers available (77 in number) on to bridges and columns near Sedan in a series of three sub-waves over a total of 33-45 minutes.

This programme was not strictly adhered to in some small respects. In the first place, the time allowed for the orders to filter down from North B.A.F.F. Headquarters to the squadrons seems to have been insufficient, with the result that the aircraft of 76 Wing, for instance, theoretically due over their targets at 1500-1510 hours, did not take off until 1525-1535 hours. It is thus unlikely that the aircraft attacked at their scheduled intervals, the more so in view of the intense opposition encountered. Secondly, though 77 sorties were ordered from A.A.S.F. Headquarters, it seems that not more

/than

MAY 14th

than 71 actually became airborne*

The path of the Battles and the Blenheims to their targets was bitterly contested. As soon as they approached the Sedan area many of them encountered patrols of Me. 109s, and all seem to have experienced strong opposition from the ground defences. Since the original time table was not adhered to, it is impossible to state which squadrons approached the area first, and thereby to compare casualties among the respective waves, but in general the losses seem to have been spread fairly equally among all waves, and between both classes of objective (bridges and columns). These losses are worth recording in detail, since, in conjunction with previous losses, they forced a change of policy, and led to the Battles being largely switched over to night operations:-

Aircraft of No. 76 Wing (scheduled for first attacks)

No. 12 Squadron:

Of 5 Battles despatched against columns,
4 were lost.

No. 142 Squadron:

Of 8 Battles despatched against bridges,
4 were lost.

No. 226 Squadron:

Of 6 Battles despatched against bridges,
3 were lost.

Aircraft of No. 71 Wing (scheduled for second attacks)

No. 105 Squadron:

Of 11 Battles despatched against bridges,
6 were lost.

No. 150 Squadron:

Of 4 Battles despatched against bridges,
4 were lost.

No. 114 Squadron:

Of 2 Blenheims despatched against columns,
1 was lost.

No. 139 Squadron:

Of 6 Blenheims (flown by 114 Sqdn. crews)
despatched against columns, 4 were lost.

/Aircraft

* The various communiqués after these operations always refer to 67 sorties, of which 35 were lost. The Wing and Squadron record books, however, give a total of 71 sorties, of which 40 (or 44 see following footnote), were lost. The figures from the operations record books have been followed here.

MAY 14th

Aircraft of No. 75 Wing (scheduled for third attacks)No. 88 Squadron:

Of 4 Battles despatched against bridges, and 6 against columns, 1 was lost.

No. 103 Squadron:

Of 8 Battles despatched against bridges, 3 (or 7)[#] were lost.

No. 218 Squadron:

Of 7 Battles despatched against columns, and 4 against bridges, 10 were lost.

Thus in all, of 45 sorties despatched against bridges, about 25 (or 29) were lost, and of 26 sorties despatched against columns, about 15 were lost - a figure of 55% (or 64%) for Bridges, and 57% for columns, or a total loss of 56% (or 62%) of all sorties. Thus it is clear that the one category of target was equally as well defended as the other - or rather that the Germans had established a highly effective fighter and anti-aircraft defence over the whole area in question.

The results achieved by these costly attacks are difficult to determine. From the Squadron and Wing record books (which do not in all cases survive) the maximum claim to be extracted is that hits were secured on three bridges (at Sedan, just south of Sedan, and Mouzon), from which it was considered that the Mouzon bridge at least had been destroyed. Other sources, however, give other results: the B.A.F.F. Communique mentions "at least two permanent and three pontoon bridges destroyed": while tables of operations compiled after the campaign by B.A.F.F. and A.A.S.F. staffs give respectively "two bridges destroyed" and "two pontoon bridges and one permanent bridge destroyed, one pontoon bridge and one permanent bridge damaged." There seems to be no photographic confirmation available, and in the absence of fuller evidence it is difficult to say more than that there is a strong probability that at least three bridges were hit. It must be remembered, however, that the larger claims may be true, as many sources of oral information have not survived. In addition, some obstruction was undoubtedly caused to the progress of the columns by the direct attacks upon them, and upon the village of Givonne which lay upon their route: while, in suffering their own losses, the Battles seem to have accounted for some four or five of the enemy fighters.

It is difficult to ascertain what fighter protection was supplied to our bombing forces. Reports

[#] The Wing Operations Record Book refers to seven out of eight aircraft failing to return: the Squadron Operations Record Book refers to three aircraft lost.

MAY 14th

Reports speak of "all available fighters", but the records fail to give positive details of anything other than a flight of No. 73 Squadron, which was engaged at this time near Sedan with a formation of seven Ju. 87s, and thus could hardly have provided effective cover to the eight Battles in its charge. It is certain, however, that other fighters were also employed on cover patrol - probably No. 1 Squadron, which mentions no time for its engagements, and No. 3 Squadron of the R.A.F. Component, which flew down as a reinforcement and which encountered great forces of Ju. 87s, Me. 109s and Me. 110s over Sedan some time in the late afternoon or early evening, either when covering this operation, or the later attack by Bomber Command Blenheims. It is equally clear that whatever fighters were mustered were inadequate in numbers, (and probably insufficiently close in proximity) to provide effective cover for some seventy bombers against the strength of German opposition over the area.

See entry
of 1620 hours
14/5/40 North
B.A.F.F.
Form 540

The operations near Sedan at about 1545 hours were planned, it will be remembered, as the second big wave of attack, after the French had delivered the first at 1230. It was then intended to follow with at least two further waves - one French and one British. The French, however, - for some unspecified reason, but possibly on account of casualties suffered, or because of the difficulty of supplying sufficient fighter cover - then withdrew the operation they had planned for the evening, and indicated that they would execute it the following morning. Equally a repeat attack by the A.A.S.F., which had been contemplated, was now clearly impossible after the losses suffered during the afternoon. An attack by the Blenheims of Bomber Command which had been projected for somewhat later, was therefore brought forward, and at about 1700 hours twenty eight aircraft took off from Watton and Wattisham. They were directed against the Bouillon - Sedan road, and the woods to the west of Givonne, with the river crossing at Sedan as an alternative. Between 1800 and 1830 hours they delivered their attacks, from 6000 feet, using 250 lb. and 40 lb. bombs: at least nineteen aircraft succeeded in attacking troops, vehicles or the Bouillon - Sedan road, while six others dropped their bombs against the alternative target. From the operation five aircraft were lost, and two more made forced landings in France. One or two Me. 109s were, it seems, shot down, but in general fighter opposition does not appear to have been as heavy as that experienced by the A.A.S.F. aircraft. This may have been due to our own increased protection, the details of which cannot be precisely stated, but which was supposed to consist of eighteen Hurricanes (including a squadron from the R.A.F. Component), to be relieved by 30 French fighters. In proportion to the size of the bombing force to be covered, this must have been a considerable increase on the cover provided for the earlier A.A.S.F. operations.

The attack by the Bomber Command Blenheims was the last air operation of the day against the German penetration, though French aircraft (number unspecified) bombed in the same area during the ensuing night. In

MAY 14th.

sum, bridges, columns, and roads near Sedan had thus been attacked as follows:-

at approximately 0500 hours by 6 Battles (A.A.S.F.)
" " 0830 " " 4 " "
" " 0900 " " French aircraft
" " 1230 " " " "
" " 1545 " " 71 Battles and
" " 1800 " " Blenheims (A.A.S.F.)
" " " " 28 Blenheims
(Bomber Command)
at night by French aircraft.

The R.A.F. thus directed 109 sorties against this penetration during the day, and of these at least 45 were lost. Something was undoubtedly achieved; the evidence of captured prisoners testified to the effect of the repeated attacks in causing fatigue among the German troops, and the French seem to have entertained a belief that the air assaults, coupled with a counter-attack by the Second Army during the afternoon, had now saved the situation. General Georges, for example, thought that by May 15th "the centre of interest" would have switched to the Dinant area; and he informed Air Marshal Barratt that the air action had successfully restricted reinforcement to the advanced German forces, and thereby enabled the French counter-attack to prevent further enlargement of the Sedan bridgehead. The German advance beyond Sedan does, in fact, appear to have halted for a few hours, but to achieve anything more permanent would have needed a far stronger assault by the land forces not only in the Sedan sector but also along the whole Meuse front to the North. And it can readily be seen that an air effort which cost the R.A.F. 45 out of 109 bombers could not be repeated indefinitely.

BOMBING OPERATIONS: (a) By night. Communications in Germany west of the Rhine, and in Holland.

The targets suggested from North B.A.F.F. Headquarters for night operations by the Bomber Command 'heavies' were communications in and near Maastricht, and Breda. The intention was apparently to relieve German pressure on the northern and central sectors by attacks on communications at no great distance from the battle front - indeed, after the aircraft had taken off, it was reported that there were French troops still in Breda. Maastricht and Breda were accepted by Bomber Command, who in addition directed two further squadrons against the nearest important centres of communication in Germany itself - Aachen and Munchen-Gladbach.

The Breda task was undertaken by Hampdens, six being detailed to attack road junctions on the Breda - Rotterdam road, and seven to attack the road to Breda at the north west exit from Rosendaal. Eleven of the thirteen actually delivered attacks, and most claimed hits on their targets. In addition four of the

/aircraft

Entry of 1910
hours, 14/5/40
North B.A.F.F.
Form 540.

Entry of 0755
hours, 15/5/40
North B.A.F.F.
Form 540.

MAY 14th

aircraft bombed Breda, as they were unable to locate their primary objectives. The Maastricht operation was entrusted to six Wellingtons, four of which in fact delivered attacks: hits were claimed on a bridge over the Maas, and bombs straddled the railway station. Wellingtons - twelve in number - were also directed against the north-east approaches and marshalling yards at Aachen. Direct hits were claimed, as well as sticks which straddled the targets from different directions, and all the aircraft returned safely. The other objective in Germany - communications and troops in ~~K~~unichen-Gladbach - was taken on by twelve Whitleys, nine of which dropped their bombs on various targets in the area.

The night's work, which involved forty-three sorties, thus saw no new developments. The exact effect of it is impossible to estimate, but whatever damage was done was at least done inexpensively, for only two aircraft (Hampdens) were lost, or crashed on return. The wasted effort was, on the whole, less than usual: two aircraft failed to locate a target, and returned with their bombs on, and two more returned with part of their load owing to the failure of their bomb release mechanism.

FIGHTER OPERATIONS: (a) Fighter Command.

On May 14th Fighter Command's work in support of the battle across the Channel was limited to a single operation - an uneventful offensive patrol over the Hook of Holland by nine Hurricanes of No. 32 Squadron.

FIGHTER OPERATIONS: (b) R.A.F. Component.

The R.A.F. Component fighters were as hotly engaged on this as on the previous days. In addition to defensive work over their own area, they were employed on patrols over the B.E.F. front at Louvain, and as escort to both reconnaissance and bomber aircraft. The details have survived very imperfectly, but in the 24-hour period ending at 1800 hours no less than 43 patrols, involving 168 sorties, appear to have been flown by the seven squadrons. An average of 24 sorties per squadron on the fifth day of the German attack was no mean feat, and the more so in view of some of the odds encountered. Thus a flight of No. 79 Squadron, patrolling the Louvain area in the evening, was in combat with a wide variety of enemy aircraft, including some fifteen Me.110s: for the loss of a single Hurricane (with the pilot safe) the flight claimed the destruction of two Ju.88s, one Do.215, one Hs.126, and one Me.110. More impressive still, nine Hurricanes of No. 3 Squadron, on cover patrol for bombers over Sedan, encountered and engaged what they described as two waves of fifty Ju.87s each, together with twenty Me.109 and twenty Me.110. One of our pilots was compelled to bale out, but the remainder between them claimed the conclusive destruction of nine Ju.87s, 6 Me.109s, and 1 Me.110, besides two or three more

/inconclusively

MAY 14th

inconclusively. In the nature of things at the time these claims could not be confirmed by reports of the wrecked aircraft on the ground, but, although details are naturally uncertain, there is no reason to doubt that the Hurricanes were accounting for substantially more of the enemy than they themselves lost.

An interesting feature of the day's operations was that Hurricanes of the R.A.F. Component, as in the case of No. 3 Squadron mentioned above, were detached to the A.A.S.F. area for duty over Sedan. In securing Lord Gort's assent to this, Air Marshal Barratt was clearly endeavouring to wring the maximum degree of flexibility out of an organisation not primarily conceived to embody that quality.

In spite of the arrival of the thirtytwo reinforcing Hurricanes and pilots from England, the R.A.F. Component fighters were now so hard pressed that some of the Gladiators recently discarded by No. 615 Squadron were distributed to other Squadrons for the defence of aerodromes against low flying attack. A few of the younger staff officers were withdrawn from R.A.F. Component Headquarters to fly them: and the following day two at least went into action successfully.

FIGHTER OPERATIONS: (a). A.A.S.F.

During May 14th Nos. 1 and 73 Squadrons were largely employed on cover duty for bombers, No. 501 Squadron on defence of the A.A.S.F. aerodromes. A flight of No. 1 Squadron, endeavouring to carry out a cover patrol over Sedan, was attacked by several Me. 109s, and claimed six victims, together with three Ju. 87. Another flight of the same Squadron, at some unspecified place, was in combat with 15 Me. 110, and claimed four for the loss of two Hurricanes. No. 73 Squadron was also engaged at least twice. In the morning a flight of this Squadron had been ordered to patrol along the Meuse from Givet to Namur, as a special protection for French troops, who had been bombed there every hour from 0600. The flight promptly encountered some sixty Me. 109 and Me. 110, in six layers of ten aircraft each, stepped up in line astern, and acting as escort to bombers assaulting a convoy on the Givet - Namur road: combat was joined and the losses were equal, at two fighters each. During the afternoon a flight on cover patrol for Battles over Sedan engaged seven escorted Ju. 87s, destroyed three for the loss of one Hurricane, and compelled the remainder to jettison their bombs. These incidents by no means catalogue the full story of the three British squadrons for the day, but may be regarded as fair samples of their activity.

GERMAN AIR ATTACK.

Not more than six or seven aerodromes in France were attacked by the Germans on May 14th, but these included three occupied by the A.A.S.F. - Mourmelon, Auberive and Berry-au-Bac. Little damage seems to have

/been

MAY 14th

been done. Railways and communications were again the principal targets behind the lines - attacks on railways, for instance, were delivered at Vitry-le-Francois, Revigny, Lerouville and St. Mihiel, presumably in continuation of the policy of severing the area of the break-through from reinforcement by forces in the South or East. Important towns in this area which were centre of communication were also bombed - notably Vouziers, Etain and Varennes - while the attacks on Moulon and Suippes probably occurred because they offered the combined attractions of an aerodrome, military camps and proximity to a railway. Betheriville and Auberive aerodromes were also very close to the Reims-Verdun railway line, and may have been attacked for that reason: while attacks on troop trains at Guignicourt (on the Laon-Reims line) were sufficiently serious to compel No. 67 Wing to move its headquarters thence to Cormicy.

The bombing of French communications in the area immediately south of the German penetration was, of course, supplemented by 'battlefield bombing' on the part of the Ju. 87s against French troops near Sedan. This is adequately proved by the forces encountered by our own Hurricanes over Sedan, for No. 3 Squadron engaged two waves of the dive-bombers each estimated at fifty strong. Equally, the same strategy was employed in the area of the German bridgehead over the Meuse further north, near Dinant. The German dive-bomber force attacked troops and convoys near the front - witness No. 73 Squadron's combat over the Clivet - Namur road, and the French request for fighter protection along this section of the Meuse.* Meanwhile, long-range bombers were put on to communications behind the front, either in very close proximity, such as the Philippeville-Florennes railway, or further back, as in the Maubeuge area. Similarly, in the First Army and B.E.F. sectors, the attacks on the front-line positions of Namur and Louvain were supplemented by bombing of important centres to the rear, such as Ninove, Nivelles and Brussels: while still further in the rear the Paris - Brussels railway was attacked at Tergnier and near St. Quentin.

In Holland the main attacks fell on Flushing, to paralyse French activity on the island of Walcheren, and on Rotterdam, where the Luftwaffe, as recorded above, demonstrated in its own fashion the irresistible quality of air supremacy.

* See fighter operations, A.A.S.F. - page 227.

M A Y 15THMILITARY SUMMARY:

Holland: In Holland the struggle now ceased, except in the province of Zeeland. Here the fighting continued, both in Zuid Beveland and in Walcheren, where Flushing bore the brunt of the enemy's attack.

Seventh Army Front: In Northern Belgium, Antwerp was now in grave danger. The Germans had already gained Lillo (on the Scheldt to the north-west of Antwerp), and were in a very favourable position to deliver an assault: there were reports, however, that their armour was moving away to the south. The French Seventh Army, whose advanced forces had experienced so much precipitate movement since May 10th, first forwards and then backwards, was now given a new role. Two divisions were to be retained for the defence of Zeeland, and two more for the defence of Antwerp, but the remainder of the Army was now ordered to move south across the rear of the Belgians and the B.E.F. The intention was that it should act in a **stop-gap** capacity against the German penetration, and in particular for the defence of the Oise approach to Paris: the order, given on May 15th, does not, however, seem to have been executed till some three days later.

Gort:
Despatch.

Belgian, B.E.F. and First Army Front: From the Canal de Junction, north of Antwerp, the allied line ran, in the sector held by the Belgians, through Lierre down to Louvain (exclusive). No part of this was seriously pressed during May 15th, save for the immediate neighbourhood of Louvain itself, where a counter attack by the B.E.F. restored the position. The B.E.F. maintained their allotted Dyle positions during the day, though contact was established all along the line, and the town of Wavre, at the right hand extremity of the British sector, was soon in flames. During the night May 15/16th, however, Lord Gort was constrained to withdraw his right (I Corps) to the river Lasne, to maintain contact with the French First Army. The left of this army had been heavily attacked just South of Wavre, and had been forced to yield ground: the centre still clung to Gembloux: the right was even more severely pressed than the left, and was driven back from Namur to a line Bovesse (J.9117) - Floreffe (J.8808). In general the First Army, though it retained elements further forward, was beginning a retirement to positions which would join the B.E.F. and Charleroi in practically a north-and-south line.

The "Bulge": It was in the sectors south of Namur, however, that the Germans continued to make really big headway. Although the French still clung to the Meuse at a point some five miles south of Namur, the line was then abruptly forced away in a big bulge which reached to Florennes, fifteen miles west of the river at Dinant. Except at isolated points, in fact, the whole river defence was as good as lost between Namur and just above Stenay, some seventy miles as the crow flies: for the bulge west of Dinant was matched further south by even deeper penetrations. In particular German progress was exceptionally fast west of the by-passed Mezières, German armoured cars during the latter part of the day being reported first in Liart (twenty miles west of Mezières) then in Hirson and Montcornet (almost twenty miles further west still). * The weakness of the French in reserves was fully exposed: for many of the units allotted on paper to the principal reserve

Doc.No.9
June
22nd.

* This advance caused Air Marshal Barratt to issue orders, shortly before midnight, that the A.A.S.F. should begin a retirement in a southerly direction: see 'Retirement of the A.A.S.F.', page 239

May 15th

force, the Sixth Army under General Touchon, proved to be 'not available' when they were actually required: and the hastily improvised armoured 'divisions' were no match for their German counterparts, which were three or four times stronger in tanks.

Thus from Namur to some dozen miles south of Sedan an enormous gap had opened. On the southern flank of this the French Second Army fought to prevent its extension, and enjoyed some success; on May 15th they held up a German attack, and managed to form the basis of a line from the Meuse near Stenay westwards towards the Aisne. This was only possible, however, for two reasons: first, because the Germans employed neither tanks nor dive-bombers to any extent on this front: and secondly, because they soon refrained from pressing even an attack by infantry.

By the night of May 15/16th the situation as a whole thus clearly exhibited the features which were to prove decisive. For the moment the allied left stood along preselected positions from Antwerp to the right of the B.E.F. Here, however, the retreat was beginning, so that contact might be kept with the faster retreat of the First Army to the Charleroi Canal; below this, some elements of the Ninth Army retained touch with the First, but the bulk had disappeared in the great corridor opened through their positions. Before the German advance extended a mass of refugees, Belgian and French, blocking the roads so effectively that reserves could hardly have been brought up had they existed. Broadly speaking, the pattern was thus now decided: while the bulk of the Second Army maintained a defensive line to the south, the allies north of the corridor were obliged to execute a gradual retirement, sharply bending their right flank to protect themselves from the northern edge of the German penetration. The Germans, for their part, forbore to penetrate further south, but poured through the gap in the direction of the mouth of the Somme, while at the same time exercising frontal pressure on the Northern armies. Within less than a week this was to lead to the complete isolation of the Northern armies, and hence within a fortnight to the evacuation from Dunkirk.

May 15th

RECONNAISSANCE:

The R.A.F. Component Lysanders continued their work, supplying about a dozen tactical reconnaissance sorties and contact patrols during the day. Their losses are uncertain, totals according to different documents varying between one and six. The theme which occurs most frequently in their reports is the density of refugee traffic, in particular as it streamed west from Brussels. The road party of No. 2 Squadron, endeavouring to move its main base forward from Abbeville to Bethune, encountered great difficulty in doing so, so great was the congestion even in an area as yet some eighty miles from the battle front.

The Blenheims carried out on May 14th four strategical reconnaissance and four photographic sorties. The latter proved particularly unfortunate, as two of the four aircraft concerned were attacked by Hurricanes, one being shot down over Tournai. Of the four strategical reconnaissance sorties, one was lost over the Louvain - Diest - Tirlemont area, and another was driven from the Antwerp - Lierre area by two Me. 109s. The remaining two aircraft brought back information of movements on the roads up to twenty or thirty miles east of Louvain and Wavre, where refugee movement was said to be holding up columns of enemy mechanised transport. One of the Blenheims, in addition to any perils from the enemy, encountered anti-aircraft fire from the Belgians near Brussels and from the British near Louvain.

No sorties were carried out during the day by No. 70 Wing, as an attack on Rosières aerodrome in the early morning by nine Do. 217s interfered with communications to R.A.F. Component Headquarters. Some Blenheims of the Wing were therefore lent to No. 52 Wing at Vitry, and participated in the sorties mentioned above.

In addition to these sorties by R.A.F. Component aircraft, No. 212 Squadron carried out on this day the task of photographing troop movements and evidence of bridging along the line of the German advance in the area of the Ninth Army. Unfortunately there seems to be no record of the results of this very important reconnaissance.

The most significant of the reports brought in by allied aircraft related to the situation north-east of Gembloux, where some eighty enemy tanks were seen, and that east of Louvain, towards which large columns were seen approaching. As a result of the latter reconnaissance the Belgians requested urgent air action on the part of the R.A.F.

BOMBING OPERATIONS: (a) Dinant and Montherme

The events of May 14th had shown conclusively that the A.A.S.F. could not continue to operate as it had thus far done, and remain in being as an effective force. This was appreciated both at Chauny and in London, whence came a renewed caveat at the losses incurred. Air Marshal Barratt therefore decided not to employ the A.A.S.F. in daylight if it could be avoided, but to divert the force in general to night operations. This left only the Blenheims of No. 2 Group as a standard force for daylight operations, and these were accordingly called upon for the first task of the day.

Entry of
1755 hours
North
B.A.F.F.
540
15th May

May 15th

ibid The attacks near Sedan the previous day had, it will be remembered, received the keen approbation of General Georges. Early on May 15th the General's representative informed Air Marshal Barratt that the main task of the day was "to assist with sustained air action the final counter-attack to close the pocket." A little later, however, the Air Marshal was informed that the projected counter-attack was withdrawn, on account of the grave threats now arising from the German crossings over the Meuse north of Dinant and at Givet, and from the presence of German troops beyond Montherme and Mezieres. In response to a consequent request for action near Dinant, Air Marshal Barratt called on twelve Blenheims of No.2 Group, which attacked the centre of the town and its eastern approaches in the region of 1100 hours - the earliest time at which sufficient fighter cover could be afforded. Even then it was necessary to bring down Hurricanes from the R.A.F. Component. In addition to any blocks caused in Dinant or on the neighbouring roads, the Blenheims were able to give very useful information of the enemy's movements, particularly in the Philippeville - Mariembourg - Givet - Dinant area, which was reported to be full of troops. The cost of the raid was two aircraft lost, and one forced-landed in Belgium. The usual intense anti-aircraft fire was encountered from many roads, but the German fighters which were patrolling the neighbourhood seem to have had their attention successfully diverted by our covering Hurricanes.

The remaining attacks of the day were delivered against the town of Montherme, with the object of hindering the German passage of the Meuse in this area. At about 1500 hours a squadron of Bomber Command Blenheims carried out dive attacks (from 5000 - 2000 ft.) on roads and enemy troops in the town, under French fighter protection, and were followed a few minutes later by four A.A.S.F. Blenheims - presumably despatched as their survival chance was rated higher than that of the Battles. The Blenheims of No.2 Group returned without loss, but of the four A.A.S.F. Blenheims one was lost, and the remaining three badly damaged. This was probably because the A.A.S.F. aircraft seem to have come down to 50 feet to bomb a convoy. The records are directly contradictory whether there was, or was not, enemy fighter opposition.

The daylight Bomber sorties during May 15th were thus drastically reduced by comparison with the big effort of the previous day, only twenty-four Bomber Command and four A.A.S.F. aircraft operating. Losses were accordingly reduced at a far more than *pari passu* rate, for only 14% of aircraft failed to regain their bases, as against 41% on May 14th. This is not strange, for with fewer operations better fighter cover could be arranged: and there were on May 15th no low-flying attacks by Battles.

BOMBING OPERATIONS: (b) By night. Monthermé, Dinant, etc.

The attack on the German forces in and near Monthermé was continued during the night by A.A.S.F. Battles, now engaged

May 15th

Docs. for
May 15th
Operations from Montherme
of A.A.S.F. and some disappointment was expressed with the bombing, for
(No. 88
Sqdn)

on their first night bombing operation. Twenty aircraft were despatched, and timed to arrive over the target at intervals between 2200 and 0100 hours, in order to prolong the disturbance. Their objectives - petrol dumps and troops in the woods south of Bouillon, and to the side of the Bouillon - Sedan road, together with the roads leading north - were not easy to identify with precision, several crews unloaded their 4 x 250 lb bombs on the woods without seeing anything much in the way of damage. The aircraft, however, at least all returned safely, and this was a matter of extreme importance, for a continuation of the losses thus far suffered by day would have broken the force entirely. Many objections, it will be remembered, had been urged against using the Battle in a night role, and the crews had for the most part been strenuously opposed to the idea, but the immunity of the first night's operations from any loss rapidly caused a radical change of outlook. No. 12 squadron, for instance, in daylight operations from May 10th - 14th, had lost ten out of fourteen sorties: on the night May 15th/16th it despatched its remaining aircraft, six in number, and all returned. The improvement to morale can be imagined, though there could naturally not be the same expectation of precise bombing results.

Fourteen Bomber Command "heavies" also operated against communications fairly close to the battle front - at Dinant, Aachen, Turnhout, and Breda. Four of these returned with their bombs: one did not return at all: and only three observed any results from their attacks.

BOMBING OPERATIONS: (c) By night, Marshalling yards and industrial objectives in Germany.
(War Cabinet deliberations, May 10-15th: operations May 15/16th).

The night of May 15/16th saw the first attack by the Royal Air Force against German industrial objectives: and the importance of the occasion demands a brief retrospective survey.

Supreme
War
Council
8th
meeting

It will be remembered that, by the time the German attack in the West opened, agreement had, after some difficulty been reached between the British and the French that attacks on oil targets in the Ruhr could be launched without further discussion between the two governments. ** The Air Staff was not at liberty, however, to initiate such attacks without a decision to this effect from the War Cabinet: and the opening days of the German offensive therefore witnessed much debate on these matters.

The Air Staff view on the subject has already been recorded. ***

* see ~~Part II, Section X (Training & Exercises)~~, page 137

** see ~~Part II, Section XII: "Plans for the Battle"~~ page 182

*** see page 176

May 15th

In brief, it was that, as long as no decisive action was taken by the Germans in the West, it was to our advantage not to "open up" the bombing war: but that, should the Germans attack the Low Countries, we should seize the opportunity that would thereby be afforded us to take the short route to the Ruhr, before the enemy had time to organise an air defence system in the territory he was violating. This general argument was reinforced by a consideration particular to the moment of the German attack - that May 10th coincided with the beginning of a moonlight period, during which our aircraft could naturally achieve greater accuracy of navigation and bombardment.

W.M. (40)
117th
Concls.

W.M. (40)
118th
Concls.

The initiation of air attack on targets deep into Germany was considered by the War Cabinet, at its first meeting on May 10th, but the Cabinet was at this stage reluctant to undertake this step immediately. Though the Air Staff was authorised to attack military objectives in Germany west of the Rhine that night with a portion of the heavy bombers, the projected assault on marshalling yards and oil plants in the Ruhr was held up while reports of German air activity were investigated. Later in the morning after reports of German bombing had been considered, the conclusion was reached that we should in fact be justified in bombing military objectives in the Ruhr, but an actual decision to carry out this action was deferred. By the time of the afternoon meeting of the War Cabinet, General Gamelin had been consulted over the telephone, and had agreed that we were free to undertake action against the Ruhr targets. The Chief of Air Staff, however, considered that from reports up to that time, although civilians had been killed by German bombs, there was no evidence that the Germans were aiming at other than purely military objectives. The effect of this consideration was supplemented by the argument now urged by the Chief of the Imperial General Staff, that the heavies should be held back from the Ruhr, in order to reserve them for a decisive land encounter: and a decision on the matter was again deferred.

W.M. (40)
119th
Concls.

Précis from The subject was further considered on May 12th, and a Secretary's decision again postponed, since two members of the War Standard Cabinet were not present. The following day, it was File of officially decided that the matter should be subject to Cabinet daily review by the War Cabinet, and that, in the meantime, Conclusions the state of readiness of the squadrons concerned should be relaxed as far possible. This postponement of action followed May 12th the more naturally from the doubt that was still entertained and 13th about the broad nature of German military intentions - whether supplied (as the Prime Minister stated on the evening of May 13th) the by War enemy was, in fact, actually in the process of delivering his Cabinet main attack, or whether he was merely making contact with the Secretariat. new allied line, and consolidating in Holland preparatory to W.M. (40) a great attack on this country.
120th Concls.

On May 14th attack by the heavies against the Ruhr targets was again considered, without any further decision being taken, but on May 15th the matter was settled in a sense favourable to action. By this date German disregard for civilian casualties, as evidenced in the bombing of Rotterdam the previous day, had become plain. Moreover, the course of the campaign had shown that it was imperative for our success to divert the Luftwaffe from its activities over France and Belgium, and an attack on such vital objectives as those specified in the Ruhr plan, might hold out some hopes of achieving this, since the Germans might be expected to

May 15th

Precis from Secretary's Standard File of Cabinet Conclusions (for May 15th) supplied by War Cabinet Secretariat

retaliate swiftly against this country. The Chief of the Air Staff was accordingly authorised to order Bomber Command to carry out attacks on suitable military objectives (including marshalling yards and oil plants) in the Ruhr as well as elsewhere in Germany: and it was decided that attacks should be made that night (May 15/16th) with a force of approximately one hundred heavy bombers. Equally, lest the country be stripped of defence against the expected German reaction, a parallel decision was taken that, for the present, no further fighter squadrons should be sent to France.*

Cypher
message
X202

A.M. to B.C.
1330/
15/5/40

Memo. by
D.D. Plans
(Op) in
D.M.C.
folder
"Aircraft
for direct
support"
14/5/40 and
A.M. file
S.46368
encl. 54A

Entry of
1310 hours,
North
B.A.F.F.
Form 540

Entry of
1820 hours,
North
B.A.F.F.
Form 540.

B.C.
Op. Instr.
No. 32

As a result of the War Cabinet's decision, Bomber Command was accordingly instructed to put Plan W.A.4(c) into effect that night, extending air action at discretion against all objectives in Plan W.A.6 (oil targets in Germany as a whole). The marshalling yards listed in the schedule of targets under W.A.4(c) were, however, changed, after consultation with the General Staff, and with the Staff of General Gamelin. In place of the yards at Schwertau, Hamm and Souest, those at Cologne, Vohwinkel and Wedau were chosen - a series of targets less deep into Germany, and known to be centres of military traffic. Vohwinkel and Wedau, however, had been specially urged the preceding day (May 14th), when the General Staff had given an appreciation that the German attack through Maastricht was more important than that through Sedan, and some of the point of attacking them must have disappeared during May 15th, when there was no longer any doubt that the Sedan thrust was the main one. No marshalling yards immediately behind this area were attacked, however, for the simple reason that there existed none comparable with the great series in the north; and it was apparently hoped that the attack on Cologne would also bring some benefit to the southern front by inconveniencing traffic scheduled to pass down to Gerolstein and Trier. It was hoped, too, that aircraft based in France would attack the lines leading to Gerolstein from the north and north-west, and a suggestion was made to this effect, with the intimation that such operations carried out by night "would contribute more effectively to the object of restoring the situation in the Sedan area than by attacking objectives in the forward battle zone". The advantage that these operations would avoid the heavy rate of casualties thus far incurred by day was also stressed. To this suggestion Air Marshal Barratt replied agreeing in principle, and announcing that the forces at his disposal would attack these lines at the earliest opportunity, but protesting that "but for the action of the air forces at Sedan and Maastricht..... a complete break-through in both cases would have occurred."

The sorties to be directed against marshalling yards under Plan W.A.4(c) were, it will be remembered, to constitute but a minor part of the attack, whose main weight was to fall on oil plants, or, if conditions were such as to prevent their identification, on self-illuminating targets such as coke-ovens and blast furnaces. Attacks on marshalling yards were intended to be of a harassing nature only, to secure the extinction of lights and a corresponding cessation of railway activity. Accordingly, on this first night of attack on the Ruhr, out of a force of ninety-six aircraft, seventy-eight

* see below. Fighter Reinforcement - page 237

May 15th

were directed primarily against oil targets, nine primarily against blast furnaces and steel yards, and nine primarily against marshalling yards. All aircraft, however, were given secondary objectives in the form of "self-illuminating" targets, and as a last resort were instructed to bomb marshalling yards.*

It is unfortunately, impossible to give anything like an accurate estimate of what was achieved by these attacks, which were carried out with a fifty per cent proportion of delayed-action bombs. Among the oil targets, the greatest success seems to have been obtained at Homberg, where the Fischer-Tropsch plant was reported to have "blown up violently"; at Wanne Eickel, where the polymerisation plant was reported to be "burning fiercely"; and at Dortmund and Castrop Rauxel, where the Fischer-Tropsch plants were said to have exploded or burst into flames. It is noteworthy, however, that though seventy-eight aircraft were despatched with oil plants as their primary objectives, not more than twenty-four claimed to have identified and attacked these, most of the remainder having to be content with dropping their bombs against railway yards. Of the whole ninety-six sorties, sixteen failed for one reason or another to attack any target at all. None, however, was lost from the night's work over the Rhine, and the whole series of operations, if not productive of great results, at least did some damage, provided valuable experience, and permitted that conservation of the bomber force which was so essential to the future of British air power.

FIGHTER OPERATIONS AND REINFORCEMENT: (a) Fighter Command

There is no record of aircraft of Fighter Command having operated over the continent on May 15th: and the principal interest of the day, as far as the activities of Fighter Command were concerned, lay in the appearance of the Air Officer Commanding in Chief before the War Cabinet. Air Chief Marshal Dowding had always been unvarying in his opposition to any scheme which involved the withdrawal of squadrons from Fighter Command: and he had viewed with alarm the despatch of the thirty-two Hurricane reinforcements to France on May 13th. Pressure from both British and French quarters in France for further aid was, however, very strong, and though it might prove, on grounds of our ultimate national interest, unwise to despatch further fighter units to France, no-one could at least deny that they were badly needed there. On May 14th a telephone message from Monsieur Reynaud had been reported in the War Cabinet to the following effect - "You were kind enough to send four squadrons, which is more than you promised, but if we are to win this battle, which might be decisive for the whole war, it is necessary to send at once, if possible today, ten more squadrons": and as a result of this representation (together with those of Lord Gort, Air Marshal Barratt, and Air Vice-Marshal Blount), the Chief of Air Staff had been instructed to take preparatory steps for the early despatch of ten additional fighter squadrons, in case it should be decided to send them to cover a counter-attack.

W.M. (40)

122nd Concls.

* see Documents, May 15th. Ops. of Bomber Command Squadrons.

May 15th

The possibility of losing ten more squadrons (and possibly more still in the future) from the direct air defence of Great Britain was naturally most unwelcome to Air Chief Marshal Dowding, and on May 15th he was given an opportunity to state his views on the subject before the War Cabinet. It so happened that on this day the War Cabinet decided to authorise attack on targets in the Ruhr, partly in an effort to force the enemy to attack British objectives in return, and thereby relieve France and Belgium. * The prospect of immediate German retaliation therefore powerfully reinforced Air Chief Marshal Dowding's normal viewpoint, and the War Cabinet decided, to his "inexpressible relief", that "no further fighter squadrons should, for the present, be sent to France". Nevertheless, the following day the War Cabinet decided to go some way towards meeting Monsieur Reynaud's request. The measures by which this was effected are recounted under May 16th.

Dowding:
Despatch on
Battle of
Brittain
para.40

Extract from
Secretary's
Standard
File of
Cabinet
Conclusions
May 15th
Communicated
by War
Cabinet
Secretariat.

* see above, Bombing Operations - page 235

May 15th

FIGHTER OPERATIONS: (b) R.A.F. Component

The main effort of the R.A.F. Component Hurricane Squadrons continued to be put into the forward patrol along the line Gembloux - Wavre - Louvain, and thereby afforded some protection both to the B.E.F. and to the French First Army. The strength of the patrols is not recorded, but there must obviously have been difficulty in keeping any considerable number of aircraft on the line, in view of the small number of squadrons and the needs of aerodrome defence, other rearward patrols and escort duties. Many enemy aircraft were encountered along this forward line: No.60 Wing, for example, complained to R.A.F. Component H.Q. during the afternoon that on the Wavre - Gembloux sector the Hurricanes were meeting waves of thirty or so bombers protected by large formations of fighters, and that we were beginning to lose Hurricanes without shooting down bombers.

Next in importance to the Gembloux - Louvain patrol was the provision of cover over the Dinant area for the morning operation by the Blenheims. * Nos. 3 and 615 Squadrons were concerned, and both were engaged with enemy aircraft, No.3 Squadron claiming two Dorniers and one Me. 109 for the loss of three Hurricanes, and No.615 Squadron (which was attacked by 11 - 20 Me. 109 and Me.110) claiming two Me. 110s for the loss of one Hurricane. The remaining patrols carried out during the day were for local defence, ** and for the protection of shipping at Ostend. In all, in the twenty-four hour period ending at 1800 hours, the R.A.F. Component reported that it had carried out 46 patrols, involving 164 aircraft, and that it had lost thirteen Hurricanes for the destruction of at least thirty-three enemy aircraft.

FIGHTER OPERATIONS: (c) A.A.S.F.

The three A.A.S.F. squadrons were all hotly engaged during the day near their bases, and a time-table of the day's main incidents will illustrate the work that was to be done -

0520 hours:- unsuccessful attempt by aircraft of No.73 Squadron to intercept five enemy aircraft flying N.W. from Reims.

* See Bombing Operations, May 15th, page 232

** One (or two) of the Gladiators distributed the previous day for aerodrome defence took off to engage a German raid on Rosières aerodrome. Accounts of the incident vary: in its most favourable version the two Gladiators shot down two Heinkels, caused the remaining seven to jettison their bombs, and landed shot-up but triumphant. Another version makes no positive claim of enemy aircraft destroyed, and implies that one of the two Gladiators was compelled to land again almost immediately, the other returning shot-up later.

May 15th

- 0715 hours:- 6 Hurricanes of No.1 Squadron engaged with 25 Me. 110 S.E. of Reims. Five of the enemy claimed as destroyed.
- 0745 " 4 Hurricanes of No.73 Squadron, on interception patrol against nine bombers sighted near Reims, engaged about 15 Me. 110.
- 0815 " 12 Hurricanes of No.501 Squadron intercepted six Do.17 engaged in bombing Auberive, and claimed the destruction of two. Two Hurricanes forced-landed, and two more returned unserviceable.
- 1230 " 6 Hurricanes of No.1 Squadron intercepted four Me. 110 N.W. of Verdun, and claimed two (possibly four) destroyed, for the loss of one Hurricane, plus one forced-landed.
- 1345 " 6 Hurricanes of No.73 Squadron, pursuing enemy aircraft seen approaching the aerodrome, encountered eight Me.110. They claimed the destruction of three for the loss of one Hurricane.
- p.m. (time unspecified) aircraft of No.501 Squadron in combat with seven Do.17s S.W. of Mézières.
- 1824 hours:- aircraft of No. 73 Squadron engaged Dorniers south of Reims, an He.111 near Rethel, and several Me.110 towards Sedan.
- p.m. (time unspecified) three Hurricanes of No.73 Squadron, patrolling Reims - Champagne aerodrome, in combat with seven Me. 110.

In all, in the twenty-four hour period ending at 1800 hours, the A.A.S.F. Hurricanes were reported to have flown 7 patrols, involving 45 aircraft, and to have shot down fifteen enemy aircraft for the loss of four Hurricanes, plus three more written off after landing.

PREPARATIONS FOR RETIREMENT OF THE A.A.S.F.

The progress of the enemy ground forces past Sedan and Mézières now increasingly threatened the whole A.A.S.F. area. Already on May 13th instructions had been issued to the appropriate officer (Wing Commander Boyle) at A.A.S.F. Headquarters to prepare an administrative plan for the move of the A.A.S.F. "under extreme circumstances". The basis of the plan, as decided at a meeting held in the office of Air Vice-Marshal Evill (S.A.S.O., B.A.F.F.) on that afternoon, was that the move, if necessary, should take place in four phases:-

- 1st phase: The withdrawal of the squadrons in the north part of the A.A.S.F. area (i.e. Wings No.67 and 76) to the new aerodromes in the South Champagne area (some of which, though not scheduled for completion until July, were sufficiently advanced to be taken into use).

May 15th

2nd phase: The move of the A.A.S.F. Blenheim Squadrons to new aerodromes in the B.E.F. Rear Area.

3rd phase: The move of all A.A.S.F. Squadrons to new aerodromes in the B.E.F. Rear Area.

4th phase: The reassembly of the A.A.S.F. Squadrons, if possible, on other aerodromes placed at our disposal by the French.

The plan thus visualised ultimately transferring the A.A.S.F. to some unspecified destination, via the South Champagne and B.E.F. Rear Area, but the growing isolation of the allied armies in the North was soon to render the scheme both undesirable and impossible. Phase I, however, was merely a short withdrawal to the South, and the necessity for executing this became more and more apparent as the day of May 15th progressed.

No.103 Sqn.
Form 540
15/5/40

Rumours of a German advance towards the Reims area had already begun to circulate on May 14th: and during the night May 14/15th French and Belgian soldiers "travelling in undisciplined groups" began to swell the throng of refugees now pouring past Betheniville aerodrome. "Indiscriminate rifle fire" and looting were reported in the village streets, and there was all the evidence of a rout. Three Hurricanes sorties were accordingly despatched from Betheniville at first light on May 15th to reconnoitre the area to the north-east: what they saw has not been clearly recorded but at 1100 hours A.A.S.F. Headquarters was ordered to stock the South Champagne grounds in preparation for the execution of Phase I, to reduce stocks of heavy material in the neighbourhood of Reims and to the north of the city, and to organise the units of Nos. 75 and 76 Wings for a possible rapid withdrawal.

A.M. file
S.5386

The possibility of a large-scale move such as this at once brought to the fore the question of transport, since the A.A.S.F. was but semi-mobile, and even for that degree of mobility was some 600 vehicles short of establishment * in the main categories. The services of the Air Attache, Paris, (Group Captain D.Colyer) were therefore enlisted in a desperate effort to secure extra transport: and a general picture of what happened may be obtained from the Attache's own account - "Money, I was told, was no object: I was to buy any sort of transport anywhere. Unfortunately, by this time all transport had been requisitioned by the Army, and it was impossible to buy. I therefore sent out my Administrative Officer, Squadron Leader A.E. Eaton, to do his best. He, with the help of the Assistant Military Attache, Major T.E. Withington, was able to get in touch with General Ricard of the French War Office, who agreed, at one time and another, to lend me 280 American lorries, on my promise to return them. As it was essential to get these lorries by hook or by crook, I promised anything, and with drivers scraped up from England, the base, and wherever they could be found, we got the lorries up to the A.A.S.F. and R.A.F. Component: the quantities were sufficient to make them mobile and so to save their equipment. At the end of eight days, the French began to clamour for the fulfilment of my promise, but in face of the natural, but uncompromising, refusal of H.Q., B.A.F.F. to give them up, I

* See Part II, Section IX - Mechanical Transport.
page 133

May 15th

stalled the French off, and the lorries were never returned until presumably they were left at Nantes when the B.A.F.F. evacuated that port."

The first steps towards acquiring lorries from the French were presumably taken during May 15th. By 2040 hours the A.A.S.F. had been placed at 24 hours notice to move, and extra transport had been promised. Shortly afterwards, following reports of the approach of enemy mechanised forces towards Rethel and Montcornet, A.A.S.F. were warned that they might have to move at once, and by 2330 hours the executive order had been given to withdraw the units of No.76 Wing (which occupied the three most northerly A.A.S.F. aerodromes) to the South Champagne area. Equally the units of No.67 Wing, which shared two of these three grounds together with Bétheniville, were ordered down to the grounds of No.71 Wing, three of whose four airfields were South of the Marne. These moves, together with that of the operational B.A.F.F. Headquarters from Chauny to Coulommiers, were begun in the early hours of May 16th, and are recounted under the events of that date. ■

GERMAN AIR ATTACK

The enemy continued apparently the same general plan for the employment of his long range bombers - the prevention of reinforcement on the part of the French. In particular the Germans attacked the eastern stretches of the Paris - Belfort railway, and railways in the Epernay - Reims - Laon - Hirson area, thereby impeding the passage of French reserves to those sectors of the front which had collapsed. In addition, some weight of attack fell on communications and towns behind the allied line to the north, notably at Ninove, Mons and Ghent.

○ Of the dozen or so aerodromes attacked, six were occupied by the A.A.S.F. and the other (Rosières) by the R.A.F. Component. Communications from Rosières to R.A.F. Component Headquarters suffered as a result, and some damage was done to the surfaces at Auberive and Berry au Bac, but in general the raids seem to have achieved nothing spectacular.

Operations were also carried out on May 15th against allied shipping off the Dutch and Belgian coasts. It was estimated from call signs that aircraft from five Gruppen took part in these attacks.

By the close of May 15th it was concluded, from intercepted wireless traffic, that all long-range units of the German bomber force, except K.G.4 and K.G.26, were operating on the western front.

MAY 16TH

MILITARY SUMMARY

On May 16th the movements of the opposing armies proceeded along the pattern established during the previous day, with the Allied forces retiring in the North, and the Germans pouring through the vast gap to the South between Dinant and Sedan.

Seventh Army Front

In the North, it was reported by the Dutch naval attache that French troops, who had been in a strong position across South Beveland protected by an inundated area, had been compelled to leave their positions on account of persistent machine-gun attacks by low-flying aircraft. The same authority reported that the collapse of the whole position in Zeeland would follow unless fighters could be sent to impede these attacks.

Belgian B.E.F. and First Army Front

On the mainland, a planned withdrawal commenced at nightfall. The Belgians began to retire through Antwerp (leaving only a rearguard in the fortress ring positions), with the intention of holding, as a preliminary measure, the lowest reaches of the Scheldt, and a line continuing South along the Willebroeck Canal to Brussels. The full retirement was, however, intended to bring the main forces back to a line from Terneuzen along the Terneuzen Canal to Ghent, and thence along the Escaut to Audenarde and Tournai. Belgian G.Q.G. accordingly retired during the night from Willebroeck to Ghent, and No. 3 Air Mission executed a similar movement to maintain contact.

South of the Belgian forces, Lord Gort was also ordered by General Billotte at about 10 a.m., to begin a withdrawal during the night towards the line of the Escaut. Intermediate halts were to be made at the Senne and the Dendre, the full retirement to the Escaut being visualised as probably extending over forty-eight hours. The British withdrawal to the Senne intermediate line was achieved by the following afternoon (May 17th).

On the right of the B.E.F. the French First Army suffered heavy pressure from the enemy, aimed principally at the point of contact with the British. During the day the French retreated West to the Charleroi - Brussels Canal and by night continued a movement which was to find them during the course of May 17th to some extent relieved from immediate pressure and forming part of the Dendre line from Alost in the North through Ath and Mons to Maubeuge in the South.

The Gap

South of the First Army the Germans were making their fastest progress. Already in the morning Hirson was reported as occupied by the enemy, who was soon pushing his advanced troops forward to La Capelle and Vervins, while beyond Mortcornet he reached towards Marle and Laon. Between Laon and Soissons the presence of the enemy was rumoured, but as yet unconfirmed. In general it was clear that the Germans were finding little to oppose them in their westward progress in this area. Attacks to the south at Stenay and Tourteron, however, were held.

/RECONNAISSANCE .

MAY 16th.RECONNAISSANCE.

The Lysanders of the R.A.F. Component continued to carry out tactical reconnaissance with great difficulty. No. 4 Squadron - (II Corps) reconnoitred the Louvain area three times during the day, but saw no significant movement on the roads under observation. No. 13 Squadron flew four tactical and two artillery reconnaissances over I Corps front South of Cambrai, but the results of these are not recorded, save that one of the artillery reconnaissance sorties was lost. There is no record of Nos. 16 and 2 Squadrons having operated on this day, but the remaining Squadron - No. 26 - carried out six contact and three aerodrome patrols. In addition, it moved forward from Dieppe to Authie.

Medium reconnaissance was continued by the R.A.F. Component Blenheims, No. 53 Squadron was particularly unfortunate, for its first sortie crashed near Cambrai, its second sortie failed to return from a reconnaissance of the Hirson-Mezieres-Reims area, and a third, on photographic reconnaissance, was shot down by Hurricanes over Amiens-Clisy aerodrome. This kind of mischance was not an isolated incident, for on the same afternoon a Blenheim of No. 59 Squadron, on short reconnaissance near Louvain, was badly damaged by an attacking Hurricane, and driven from its reconnaissance area. It was, however, able to give a report of large numbers of enemy mechanised transport moving towards Louvain. Other useful information was brought back during the afternoon by a Blenheim of No. 18 Squadron which flew at 50 feet over the Nivelles - Wavre - Gembloux area, and reported that the road Janichalette-Gembloux was completely occupied by enemy guns and transport. As a result of this Nos. 57 and 59 Squadrons together with No. 26 (Lysanders) were ordered to stand by for bombing operations, which were not, however, executed until the following day.

During the day the squadron convoys, in accordance with orders issued the previous day, left the aerodrome of Mons-en-Basme and the headquarters village of Monchy Lagache and proceeded north to Lille-Ronchin. The intention behind this had been to concentrate the squadron on one aerodrome, and to place it in a more favourable position for forward reconnaissance: but the main merit of the move (which was attended by some confusion) proved to be that it took the squadron out of the direct path of the German forces streaming through the vast gap in the French defences.

WHILE

MAY 16TH.

While some of the R.A.F. Component reconnaissance squadrons were preparing to bomb, some of the A.A.S.F.

bombers were now more actively engaged in reconnaissance to establish the exact details of the enemy's progress towards their aerodromes. No. 71 Wing Blenheims during the earlier part of the day failed to discover any enemy movement in the area west of Charleville (Montcornet - Rumigny - Aubigny) down to the Aisne at Reims, but a later sortie, which took off at 1940 hours, observed enemy progress west of Charleville towards Hirson and beyond. No sign, however, was seen of German forces on the South side of the Aisne or the Ardennes Canal, in spite of the many rumours of enemy formations bearing down on the A.A.S.F. positions.

BOMBING OPERATIONS (a) Montherme

Bombing operations during the day were negligible, partly because the bulk of the A.A.S.F. was on the move and partly from the difficulty of establishing an accurate bomb-line in so fluid a situation. Most of the normal channels of military information were breaking down, and little could be relied upon that had not been vouched for on the spot by one of our own reconnaissance aircraft, or, for the Northern front, by one of Colonel Hopkinson's patrols.

The only daylight attack ordered was at first light, to be delivered by four A.A.S.F. Blenheims against road communications near Montherme. Only one aircraft, however, reported any success, the other three failing to locate the target on account of a thick haze. A possible bombing attack in the Wavre - Gembloux - Nivelles area was discussed between B.A.A. F., R.A.F. Component and the French, but insufficient information about the exact ground situation prevented its execution.

Documents
See
Operations
of 71 Wing.
May 16th.

BOMBING OPERATIONS

(b) By night. Maastricht. Aachen. Munchen Gladbach.

German communications West of the Rhine were again selected by B.A.A.F. Headquarters for action by the Bomber Command "heavies" allotted to the collaboration plan. Nine Witleys (three for each objective) were directed against communications in and near Maastricht, Aachen and Munchen Gladbach: eight of the sorties were effective, and all returned safely.

BOMBING OPERATIONS

(c) By night. German industrial targets.

The attack on oil objectives in Germany, opened the previous night, was continued, though, in accordance with plan, on a much reduced scale. Six Wellingtons were directed against the synthetic oil plants at Bottrop, Gelsenkirchen (Nordstern) and Gelsenkirchen (Buer), and six Hampdens against similar objectives at Wanne Eickel and Castrop Rauxel. Three Wellingtons and three Hampdens reported that they had found and bombed their targets, the remainder attacking aerodromes and railway sidings.

/One ...

MAY 16TH.

One Hampden crashed near Cherbourg on its return journey - the first aircraft lost from the assault on the Ruhr.

FIGHTER REINFORCEMENT.

W.M. (40)
122nd Concls.

Précis of
Secretary's
standard file
for May 15th
communicated
by War Cabinet
Secretariat.

North B.A.F.F.
record of
telephone
conversations
May 16th.

It will be remembered that, in response to the many requests from France, (and in particular to M. Reynaud's plea for ten more fighter squadrons), the Chief of Air Staff had been instructed by the War Cabinet on May 14th to take preparatory steps for the possible despatch of an additional ten squadrons. The following day, however, the War Cabinet had decided that "no further fighter squadrons should for the present be sent to France." During the morning of May 16th renewed requests flowed in from France: before 1100 hours for instance, Air Marshal Barratt had pressed the subject by telephone with D.H.O. (Air Commodore Stevenson), C.A.S. (Air Chief Marshal Newall) and D.C.A.S. (Air Vice Marshal Sholto-Douglas), while General Vuillemin (who promised assistance with servicing personnel and air transport) had repeated M. Reynaud's demand for ten further squadrons.

The requests from B.A.F.F., however, did not go so far as those of the French, for the view of the S.A.S.O. (Air Vice Marshal Evill) was emphasised that our bases could not take more than five fresh Squadrons, and that the addition of two more fighter servicing units would be desirable as a basis for a practicable policy of gradual reinforcement. Further pressure for fighter reinforcement also came from Lord Gort, in a personal message to the Chief of Imperial General Staff, stressing the intensity of the air fighting, and the need for Hurricane replacements, or "alternatively the equivalent of seven squadrons."

W.M. (40)
124 Concls.

These demands were not to go entirely unsatisfied, for the War Cabinet, meeting at 1130 hours on May 16th, now decided that the equivalent of four fighter squadrons should be sent to France immediately, and that preparations should be made for the despatch of two more. The decision for the actual despatch of these two further squadrons was to await a report from Air Marshal Joubert, who was to be sent to France to investigate the subject.

Document
No.9
May 16th

In consequence of the Cabinet decision to send the equivalent of four fighter squadrons immediately, Fighter Command was ordered at mid day by Air Ministry to detail eight separate flights from Hurricane squadrons for reinforcement to the R.A.F. Component. Six of these flights left during the afternoon and two the following morning, proceeding to Lille-Marcq (2) Lille-Seclin (1) Merville (2) Vitry-en-Artois (2) and Abbeville (1). The intention was that fuel and ammunition facilities for initial operations should be ready in France, but that the flights should be supported by their own personnel and equipment, to be moved across in transport aircraft. In addition to

/these ...

MAY 16TH.

these reinforcing flights, arrangements were also made for twenty experienced Hurricane pilots to proceed to France on May 17th, in exchange for twenty tired Hurricane pilots from the R.A.F. Component.

W.M. (40)
124th Concls.

W.M. (40)
125th Concls.

While these arrangements were being set in train, the Prime Minister had himself left for France, with the intention (according to the War Cabinet Conclusions of that morning) of protesting against the Allied withdrawal executed "on account of the penetration of the French line by a force of some 120 German A.F.V's." From France later in the day the Prime Minister telegraphed to urge that six more fighter squadrons should be sent across in addition to the four already promised, but the Chief of Air Staff, in the meeting of the War Cabinet at 11 p.m. pointed out that the most the Northern French bases could take for efficient handling would be three additional squadrons. He therefore suggested that six complete Hurricane Squadrons should be concentrated in the South of England and that three of these should fly across to French bases for morning work, with the other three relieving them in the afternoon. Instructions were given by the War Cabinet that this scheme should be executed, and the details of the concentration were accordingly arranged during the night, so that the squadrons were ready for operations on the following day (May 17th).

FIGHTER OPERATIONS.

(a) Fighter Command.

No operations were carried out over the Continent by Fighter Command aircraft on May 16th, save two patrols over Ostend to provide air protection for the evacuation of British refugees. These were carried out at squadron strength by Spitfires - presumably an earnest of the inroads into the Hurricanes now being made by continental requirements.

FIGHTER OPERATIONS.

(b) R.A.F. Component.

The details of the R.A.F. Component fighter operations on May 16th remain, owing to the loss of records, to a large extent shrouded in mystery. It is clear that patrols for local defence were flown, that the Louvain - Wavre line was still being covered, and that some fighter protection over Ostend was supplied; beyond this, however, little can be established. No. 85 Squadron from Lille-Seclin speaks of encountering an enemy force seventy five aircraft strong, but there are few other details. It was reported that up to 1800 hours, and exclusive of No. 615 Squadron, at least fifteen enemy aircraft had been brought down for the loss of eight Hurricanes.

During the day No. 615 Squadron moved up from Abbeville to Moonslele (6 miles S.S.E. of Ghent) - apparently the first fighter squadron to occupy a Belgian aerodrome. In the evening six of the eight Hurricane flights (which the War Cabinet had decided earlier that day should reinforce the R.A.F. Component) arrived in France.

X See above, page 245

/FIGHTER ...

MAY 16TH.FIGHTER OPERATIONS.(c) A.A.S.F.

The general movement of the A.A.S.F. is limited the operations of No. 67 Wing, as of the other Wings, and few details are preserved for May 16th, save by No. 73 Squadron, which records patrols by an unspecified number of aircraft over Sedan, Reims and Châlons.

RETIREMENT OF NORTH B.A.F.F. HEADQUARTERS AND THE A.A.S.F.

The advance of the enemy beyond Montcornet towards Laon might, if it turned south across the Aisne, overrun the A.A.S.F. aerodromes; it had merely, however, to maintain its existing direction to overrun North B.A.F.F. Headquarters at Chauny. At 0130 hours on May 16th Air Marshal Barratt therefore closed his advanced headquarters and with his staff moved back to the main headquarters at Coulommiers, which was reached at 0520 hours. The move restored Air Marshal Barratt to close proximity to General **Villemin's** headquarters, but separated him from those of General d'Astier, whose Z.O.A.N. operational headquarters were now moved from Chauny to Chantilly.

Shortly before midnight, on May 15th, B.A.F.F. had instructed the A.A.S.F. to withdraw the most northerly units - those of No. 76 Wing - to the new aerodromes in the South Champagne area, and those of No. 67 Wing to the grounds of No. 71 Wing (three of which were south of the Marne). These moves started early on May 16th, and are listed in detail, together with those of the other Wings, in Appendix G. Some of the Squadrons had very few aircraft left to move; No. 226 Squadron (76 Wing), for instance, records the demolition of seven unserviceable Battles, two spare engines and the main non-salvageable stores, and the flight of the only two serviceable Battles from Reims - Champagne down to Faux Villecerf. The Hurricanes of No. 67 Wing reached the No. 71 Wing aerodromes early in the day, not a little confusion being caused when Nos. 73 and 501 Squadrons landed at Villeneuve, apparently without the existing occupants (No. 105 Squadron) having received any warning of their arrival. Since the Wing Headquarters had certainly been warned by A.A.S.F., the failure seems to have occurred between Wing and Squadron.

The next element in the withdrawal was ordered by B.A.F.F. at 0855 hours on May 16th, when the A.A.S.F. was instructed that the units of No. 75 Wing should (in addition to those of No. 76 Wing already en route) retire

see above, pages 239-241 and below, pages 247-251

Coulommiers remained the operational headquarters of B.A.F.F. until June 8/9th.

/to ...

MAY 16TH.

to the South Champagne area. These moves were carried out during the course of May 16th. Equally A.A.S.F. Headquarters, advised to retire south by B.A.F.F. at 0855 and 0925 hours, moved during the day from Reims to Troyes, where it would be best situated to control the units now moving into the South Champagne area.

The movements thus far referred to, though naturally attended by the greatest difficulties, appear to have been not too seriously affected by ambiguous or contradictory orders, or by those last minute changes of plan so natural in the given military situation, but so productive of confusion in a force but semi-mobile. The same can hardly be said for the move of some of the units of No. 71 Wing. This Wing, it will be remembered, had occupied the most southerly of the old A.A.S.F. positions, with three of its four aerodromes south of the Marne. It was therefore possible to leave it in situ a little longer than the more northerly wings, and during this period confusion flourished.

The plan for Phase II of the withdrawal, it has been explained, envisaged transferring the Blenheim squadrons of No. 71 Wing to new aerodromes in the B.E.F. Rear Area. At 2040 hours on May 15th B.A.F.F. had instructed A.A.S.F. that any preparatory moves contemplated under Phase II were not to take place pending further orders; nevertheless in the early hours of May 16th an advanced party of No. 71 Wing left for Abbeville, while advanced parties of the two Blenheim Squadrons (Nos. 114 and 139) set off for Grcy and Lannoy respectively. Why this was so is not clear, for the B.A.F.F. instruction to A.A.S.F. permitting the despatch of reconnaissance parties (but not more) for Phase II was not originated until 0855 hours on May 16th, some hours after the advanced parties had actually departed. In the event these parties found themselves isolated in Northern France, pursuing a fragmentary and somewhat anarchic career.

The intention of transferring part of No. 71 Wing to the B.E.F. Area was retained until May 17th, though fortunately no further moves seem to have been made after the despatch of the advanced parties. A record of proceedings drawn up at B.A.F.F. headquarters explains that "by the afternoon of May 16th the situation had clarified, shewing that the enemy had remained north of the Aisne, and was directing a powerful thrust towards St. Quentin. This being the case, it was decided not to continue with

See above, ~~Preparations for Retirement of the A.A.S.F.~~, page 239-241.

/Phase ...

AHB
11H2/376
Encls. 1B
(May 16th)
and "E".

MAY 16TH.

Phase II of the A.A.S.F. withdrawal, but to consolidate the position South of the Marne." X

While a transference to the B.E.F. Rear Area continued to be the ultimate objective, any interim retirement of No. 71 Wing to the South from its grounds near the Marne was left, by an instruction from A.A.S.F. at 1140 hours on May 16th, to the Wing's own discretion. Though reconnaissance repeatedly reported no German forces south of the Aisne on May 16th, No. 71 Wing was beset by rumours emanating from French sources of the enemy's imminent presence. The most alarming of these occurred shortly before midnight on May 16th, when a French officer reported that the French were retiring from Vouziers. This was duly passed on to A.A.S.F. who thereupon sent off instructions to No. 71 Wing to move South, only to recall the despatch rider a few minutes later when it was learnt from B.A.F.F. Headquarters that G.Q.G. at Vouziers regarded the rumour as so much "crotte de boeuf". No. 71 Wing therefore retained the Marne aerodromes until a drastic reorganisation of the A.A.S.F. was effected on May 18th. X X

A.A.S.F. Form
540. Entries
of 2345/16th
May and
0300/17th May.

The combined effect on No. 71 Wing of alternative orders, unco-ordinated authorities, an ambiguous military situation and a disruption of normal communications may best be traced in the diary of one Unit, No. 105 Squadron, which has left a very full record. An abstract of the diary for the relevant period will illustrate the atmosphere at Villeneuve aerodrome:-

No. 105 Sqdn.
Form 540
Entries of
May 15th-17th.

May 15th

Squadron received signal that "all personnel and gear not required for operational purposes" were to move by road that night. In doubt whether signal really applied to them, and contacted No. 71 Wing (W/Cdr. Coombes). Ruling given that the signal did not apply to 105 Squadron.

May 16th

Time unspecified: Squadron instructed by No. 71 Wing (W/Cdr. Coombes) to act upon above signal.

0730 hours: Elements of Nos. 73 and 501 Squadron arrived at Villeneuve without No. 105 Squadron having been warned.

X These two complementary decisions were not, in spite of this statement, taken simultaneously. As a result A.A.S.F. and No. 71 Wing continued for some hours more to plan a move to the B.E.F. Rear Area.

X X See below, pages 260-263

/o830 hours...

MAY 16TH

- 0830 hours: Arrival of Inspector General (Air Chief Marshal Ludlow Hewitt) who considered the move to be uncalled for.
- 1030 hours: No. 71 Wing consulted (G/Capt. Field). Reaffirmed that non-operational gear and personnel should be evacuated.
- 1200 hours: No. 71 Wing (W/Cdr. Coombes) intimated that all Squadron personnel should be evacuated immediately. Squadron personnel thereupon ordered to march from Villeneuve to Vertus.
- 1315 hours: Squadron C.O. consulted No. 71 Wing (G/Capt. Field), and was told that evacuation was not sufficiently pressing to justify marching and that the Wing would try and send along four lorries.
- 1330 hours: Arrival of A.O.C. and S.A.S.O. A.A.S.F. (Air Vice Marshal Playfair and Group Captain Collier) who were surprised to find the Squadron moving. As a result a coach was sent off to bring back the marching airmen (which it did) and a despatch rider to contact the operational equipment vehicles proceeding South. (Contact was not established, as the vehicles had been diverted from their scheduled route by military police, and had failed to report to C.R.E. Troyes). A.O.C. left expecting Squadron to operate from Villeneuve the following morning.
- Time unspecified: Squadron asked No. 71 Wing to get into contact with the South Champagne ground (Echemines) to which the Squadron aircraft had now flown and order the aircraft back. Wing (W/Cdr. Coombes) declined to do this, and gave a "stand-still" order, which was then confirmed by A.A.S.F. (W/Cdr. Williams).
- Time unspecified: Trouble with No. 73 Squadron personnel about missing property of No. 105 Squadron.
- May 17th: Orders from No. 71 Wing to evacuate all
Time unspecified transport to Echemines except that needed
(a.m.) for evacuating the airmen left at Villeneuve.
- 1530 hours: "Pilot Officer de Laszlo arrived by air with a rather nebulous account of an interview which he had had with the A.O.C. in which he understood that the A.O.C. still wished what remained of the Squadron to operate from Villeneuve." The Squadron C.O. (W/Cdr. Hawtrey) wrote a letter to the A.O.C. saying that in that case many items must return from Echemines and that No. 71 Wing must be informed, as orders from the Wing were for a leisurely and progressive evacuation.

/Finally ...

MAY 16TH

Finally, definite orders were given by the Wing on May 18th that the Squadron should move, and the Villeneuve parties left on the following day, mostly for neither B.E.F. nor South Champagne areas, but for the base at Nantes.

A.A.S.F.
Form 540
Entry of
0450/17th May

The confusion evidenced in the record of No.105 Squadron was to a lesser extent repeated with the Hurricanes of No.67 Wing. No. 73 Squadron, for example, for three days lived a divided existence between Villeneuve and one of the South Champagne grounds (Gaye), while on May 17th No.1 Squadron apparently moved from Berry au Bac, near the Aisne, down to Conde-Vraux, on the Marne, not as a result of Wing orders, but on the personal initiative of the Squadron C.O. (S/Ldr. Halahan).

The withdrawal to the South Champagne area of the various supply units, and the efficiency of the A.A.S.F. retirement as a whole, are considered under the narrative for May 17th.*

MAY 17TH

MILITARY SUMMARY

The situation continued to develop on the lines now clearly established.

The Seventh Army front: On Dutch soil the enemy compelled the French during the day to evacuate their last forces from South Beveland, and to abandon Arnemuiden in the island of Walcheren, which was now in the process of being overrun. The French still, however, retained three divisions on the Dutch mainland south of the Scheldt estuary, and the General Staff at Flushing considered that the defence of the south bank of the Scheldt might be practicable if "permanent assistance" (defined as assistance during the entire day, or as much of the day as possible, and not merely for a few hours) were forthcoming from British fighters and anti-aircraft units.

The Belgian front: To the right, the Belgians at the end of day began to withdraw from the Antwerp fortifications, after their positions at Lierre had been pierced. The general movement was to fall back to the line of the Scheldt (west bank) as far as Termonde, and thence up the Dendre to Alost. Brussels and Malines were occupied by the enemy during the evening, but Belgian morale was reported by General Needham to be 'exceptionally high' - a fact he ascribed to the British fighter activities and the small losses thus far incurred by the Belgians during their extensive movements.

The B.E.F. fronts: From Alost the line of the Dendre was now the responsibility of the B.E.F. to the right as far as Ath. The position at 1600 hours, according to Lord Gort's despatch, was that three British divisions (I and II Corps) were forward of the Dendre on the Senne, a fourth protected the right flank, two more were withdrawing from the Senne to the Dendre, another was on the Dendre, and a further two (of III Corps) were behind the Dendre on the Escaut. At 2200 hours the forward divisions on the Senne began to retire to the Dendre.

During May 17th the enemy break-through to the south of the 1st French Army also caused a hasty regrouping of other British resources to meet the threat to the right flank. As immediate cover, 'Macforce' (one infantry brigade, one tank brigade, a field artillery regiment and the mobile reconnaissance elements of the Hopkinson Mission) was formed under Major General Mason MacFarlane, with the task of covering the crossings over the Scarpe between Raches (3 miles N.E. of Douai) and St. Amand. As more distant cover, both to the right flank of the main B.E.F. positions, and to rear G.H.Q. at Arras, 23rd Division (despatched overseas for labour in the rearward areas, incompletely trained, with no artillery, and few signals or administrative units) was ordered by General Georges to occupy fifteen miles of the Canal Du Nord, from Ruyalcourt (10 miles north of Peronne) to Arleux (6 miles south of Douai). Elements of the 12th and 46th Divisions which had been constituted and employed in a similar capacity to the 23rd, were also ordered south and undertook such functions as covering the north

Docs.
May 17th
No. 3

A.H.B.
IHH2/
417(i)
(8)

Gort:
Despatch
para. 26.

ibid
para. 25

ibid
para. 28

western exit of Peronne, and providing defence along part of the Somme. The elements on the Canal du Nord, together with those for the defence of Peronne and Arras, were on the following day (May 18th) combined under the command of Major General Petre, and given the name of 'Petre-force'.

Docs.
May 17th
No. 12

The French First Army and the 'Gap': To the right of the B.E.F., the French First Army was now falling back to hold a line south from Ath through Lens to Mons, where the remains of the Ninth Army linked up and continued the line to Maubeuge. Here, however, they were in difficulties. From the Sambre positions near the Forêt de Mormal, south west of Maubeuge, began the great gap. During the day French forces retreated from the Sambre at Landrecies towards the Escaut at Cambrai: while further to the south the enemy, capturing Guise, gained a foothold across the Oise at Longchamps and Ribemont.

Broadly speaking the position was thus that, though various French elements continued to hold out at places well in advance of the main line, such as Namur, Charleroi, and the recaptured Montcornet, the only forces opposing the Germans between Maubeuge and Attigny, on the Aisne, were token forces, and hastily assembled reserves strung out over impossibly lengthy stretches.

This applied not only to the forces on a north-south axis directly in the path of the main German advance, but to those on a west-east axis along the Ailette and Aisne. The latter, under the command of General Touchon and reaching from Chauny to Attigny, sought to impose a southern barrier against the enemy: and the barrier for the moment held firm - not because of its strength, but because it was not attacked. East of this, however, from Attigny across the Meuse to the Maginot Line, the French forces were stronger, and were able to resist southward pressure by German infantry at Montmedy. The Maginot Line itself remained comparatively quiet, save for sufficient activity by the enemy (in the form of artillery bombardment on the front, and air bombardment of railways in the rear) to prevent the French transferring any considerable forces elsewhere.

RECONNAISSANCE.

With forward elements of the B.E.F. in contact with the enemy, and with German forces threatening the British right flank and rear, the R.A.F. Component Lysanders were kept extremely busy. No. 4 Squadron (at Lille-Ronchin, with an advanced landing ground at Asplaere) carried out tactical reconnaissances over the Louvain area, and between the Dyle and the Senne. A few enemy vehicles were observed in the afternoon on the roads leading to Brussels but no movement in any great strength was seen. No. 16 Squadron, ordered by G.H.Q. to send two sorties on reconnaissance over the threatened area to the right of the B.E.F. (Le Quesnoy - Le Cateau - La Capelle - Guise - Avesnes - West

MAY 17TH

of Maubeuge), reported by 1100 hours that enemy tanks were crossing the Oise at Ribemont, and that there was a movement of enemy mechanised transport and armoured fighting vehicles towards Cambrai from the south, and from Cambrai towards Arras. If this were so, not only the Oise and Sambre, but the Escaut had been crossed; but the identification of the latter movement as enemy was by no means certain.

No. 26 Squadron at Authie under G.H.Q. instructions reconnoitred for enemy troop movements approaching the right of the B.E.F., putting up single aircraft throughout the day. Of the remaining Lysanders, No. 2 Squadron carried out four tactical reconnaissance sorties for Macforce- one of which, over Cambrai; was attacked by nine Me.109.

The R.A.F. Component Blenheims brought back useful information during the day. During the morning two sorties reported on the withdrawal of the Allies, the preparations for demolishing the Senne bridges, and the approach of the enemy towards Malines and Brussels. In the afternoon sorties reported little movement in front of the Dyle, or between Hal and Le Cateau. To the south of Le Cateau, however, the Oise area was reported very active, with north westerly movements on the roads towards Cambrai and St. Quentin. Whether these movements were French or German was not apparently clearly seen by the aircraft, which flew between 3500 and 6000 feet. The inference was probably that they were French withdrawals, since the bridges over the Oise were intact, and there was no opposition to the Blenheims concerned from anti-aircraft fire: on the other hand widespread fires over the whole area, and particularly at Ribemont and Laon, were reported. The day's work was expensive to the R.A.F. Component, since out of the eight or nine reconnaissance sorties despatched, at least three appear not to have returned.

Apart from the reconnaissance duties, the R.A.F. Component Blenheims, like the Lysanders, were used during the afternoon for bombing.* Work by the survey flight of No. 53 Squadron, which had taken close on 5000 photographs of the Dyle, Senne, Dendre and Escaut areas since May 10th, was abandoned on account of casualties inflicted by Hurricanes.

BOMBING OPERATIONS (a) Gembloux and Le Cateau

The operational story for May 17th is an unhappy one. the A.A.S.F. was **unable to** operate, since the necessary supply of bombs and petrol had not as yet reached the South Champagne grounds; Bomber Command lost eleven of their twelve aircraft despatched: and the R.A.F. Component bombed a French instead of a German column.

The Bomber Command attack was primarily designed to block the passage of German columns through Gembloux. Protective cover was arranged with the R.A.F. Component, who promised to have fighters over the area at 0600 hours.

* see pages 255-256

MAY 17TH

Documents
May 17th
Operations
of Bomber
Command.

It had been arranged that the Blenheims should approach the target from the south-east at 5000 feet, diving down to 2000 before bombing. R.A.F. Component Hurricanes were over the target area at the appointed time, but the Blenheims were unfortunately intercepted shortly before reaching Gembloux. Flying in two boxes of six, they came under heavy anti-aircraft fire, and opened out into loose formation. One of the Blenheims on the starboard was shot down, and before the remainder could close in again, fifteen or more Me.109s came in to attack from port. From the encounter only one Blenheim returned, and that had sustained damage and released its bombs accidentally. It has been suggested (though not, apparently, confirmed) that the enemy might have gained prior knowledge of the operation, for reports occur at this time of the line from B.A.F.F. to R.A.F. Component being "tapped".

The R.A.F. Component operation was unfortunate in a different manner. At 1015 hours No. 14 Group informed R.A.F. Component Headquarters that the French had reported the road between Landrecies and Le Cateau to be full of German mechanised units: at the same time No. 14 Group stated that the French had arranged to bomb and were requesting the R.A.F. Component to do likewise. Within ten minutes R.A.F. Component Headquarters had sent the necessary orders to No. 70 Wing and to No. 16 Squadron, whose aircraft had been bombed up and ready to take off at short notice since the previous evening. It is not clear at what stage the news of the projected operation reached the ears of superior authority, but at 1050 hours D.C.A.S. (Air Vice Marshal Sholto Douglas) phoned Air Marshal Barratt and suggested that the troops seen might be a French D.L.M. returning from Avesnes. By 1103 hours the French who now apparently entertained doubts about the column they had arranged to attack, had undertaken to establish its identity more clearly: and by 1135 hours the squadrons concerned were ordered to suspend the operation. The suspending order came too late to hold up No. 16 Squadron which had taken off at 1030, or aircraft of Nos. 18 and 57 Squadrons, which had taken off at 1100 hours: it was, however, in time to restrain all but one aircraft of No. 59 Squadron. In the result, attacks were made by some twenty aircraft on the Le Cateau - Cambrai road; some of the pilots appear to have refrained from bombing the column because of their doubts on the subject.

By now there was no doubt at B.A.F.F. Headquarters that the column was in fact French: but a further report was brought into R.A.F. Component Headquarters at 1315 hours by a Staff Officer who had made a special reconnaissance in a Moth. This was to the effect that 15 to 20 definitely German tanks were on the road from Landrecies to Le Cateau. R.A.F. Component therefore ordered No. 16 Squadron to attack these: but, for an unspecified reason, cancelled the order at 1400 hours. Instead, at 1405 hours, No. 70 Wing was ordered to attack a number of tanks a few miles south of Bapaume: and between 1600 and 1700 hours about ten Blenheims from Nos. 18 and 57 Squadrons duly bombed the road between St. Quentin and Peronne. Whether this was in fact

another French column is not clear, but none of the intelligence summaries of the day report the enemy as being west of St. Quentin at the time.

In considering the R.A.F. Component's bombing activities on May 17th, all due allowance must of course be made for the difficulties of the situation, with a German advance uncomfortably close and communications deteriorating rapidly. Nevertheless, it is difficult to resist the conclusion that R.A.F. Component was not in possession of a sufficient picture of the battle to order an operation of this sort with safety: and that the organisation which permitted it to do so was to that degree at fault.

BOMBING OPERATIONS. (b) By Night. Communications on and near the Meuse.

W.M. (40)
125th
Concls.

The Prime Minister during his visit to France on May 16th, in addition to agreeing that more fighters should be sent from England,² had also accepted the view that our heavy bombers should be employed against German forces **crossing** the Meuse. The same Cabinet (of 2300 hours May 16th) which instructed the Chief of Air Staff to make available six Hurricane Squadrons for work in France,² **therefore** also instructed him to order attack on the Meuse crossings. The time was too far advanced for the order to be put into effect that evening, but preparatory measures were taken so that the War Cabinet's instruction could be carried out the following night (May 17/18). Immediately after the Cabinet, V.C.A.S. (Air Marshal Peirse) informed B.A.F.F. Headquarters that a number of heavies of Bomber Command would be at their disposal for the nights May 17/18 and May 18/19; and during the morning of May 17th a directive was sent from Air Ministry to Bomber Command. This was to the effect that the latter should operate on the highest scale that night, dividing the effort between targets indicated by B.A.F.F. and those targets in Germany permitted by the directive of May 15th.² **This** caused Bomber Command to alter the operation instructions already issued for May 17/18, which had called for attacks on objectives in Germany only.

B.C.
Operation
Instruction
No. 34.

The operation order now issued by Bomber Command, in addition to giving some rather out of date military information, explained that the object was to delay the enemy advance by sustained attack on his channels of communication: and that the targets were river crossings, road junctions and their eastern approaches. An unbroken bridge at Namur was given the highest priority, and the remaining points of attack were to be at Yvoir-Anhee Dinant, and Givet. Attack on all of these had been suggested from B.A.F.F. Headquarters, after the usual consultation with the French. In addition Gembloux, a centre of the movement further north, was also scheduled for attack.

The force employed on the operation consisted of 20 Wellingtons against Namur, 9 Wellingtons each against the remaining Meuse targets and 6 Hampdens against Gembloux -

MAY 17TH

a total of 53 aircraft. At 2250 hours, however, - some time after the Wellingtons had taken off - a liaison officer at General Tetu's Headquarters reported to B.A.F.F. that French troops were holding out in Namur. The fortress troops would be immune from bombing, it was stated, but it was nevertheless desirable to change the target. This Bomber Command endeavoured to do, while the aircraft were in the air. No. 115 Squadron was successfully diverted to an alternative target - Gembloux - but No. 37 Squadron failed to receive the message (sent in plain language) since the wireless operators, being over enemy-occupied territory, were manning their guns. In the event six aircraft bombed communications at Namur, three bombed at Yvoir-Anhee, twelve at Gembloux or nearby, about ten at Dinant (where the railway bridge was reported to have collapsed as a result), and eight at Givet and its Eastern approaches (including an attack on a German column). Thirty-eight of the fifty-three sorties were thus able to locate primary or secondary targets: of the remainder, twelve aircraft failed to locate and/or bomb any target.

BOMBING OPERATIONS. (c) By night. Railways and Industrial Targets in Germany.

The remaining part of Bomber Command's effort for the night was located, in accordance with the new Air Ministry directive, against targets in Germany. Six 'harassing' sorties were sent against the marshalling yards at Koln, Wedau and Vohwinkel, but two failed to locate any target and returned with their bombs, while the other four do not seem to have found the yards concerned. The major part of the effort was, however, put into attacks on oil targets. Twenty-four Whitleys were sent against the domestic oil refinery for high grade lubricants at Bremen: and of these all but four claimed to have located and bombed the target. Several direct hits were observed, and **oil tanks were** seen to explode. In addition, forty-eight Hampdens were scheduled to attack three refineries at Hamburg: and all but nine claimed to have completed their mission successfully. Many crews reported that fires were well alight when they arrived, and that these were an aid to location. Only four or five crews seem to have been unable to find their target.

The third night of attack on German oil was thus, according to the stories of the crews concerned, a big success. No aircraft was lost from the operation, and the proportion of aircraft attacking their primary objectives ^p 82% - was noticeably higher than on the previous two nights of the application of the oil plan - 31% and 50% respectively. This improvement may doubtless be ascribed to the more favourable state of the moon,¹ and the ease with which Hamburg and Bremen could be located, as compared with targets shrouded by the industrial haze of the Ruhr.

FIGHTER OPERATIONS. (a) Fighter Command.

In accordance with the decision of the War Cabinet on the night of May 16th, ^{see} six squadrons were concentrated in south east England for work over France. The original

¹ State of the moon for May, 1940: New Moon 7th, 1st quarter 14th; full moon 21st; last quarter 29th.

^{see} See above, page. 246.

intention was that three squadrons should proceed to France and operate under R.A.F. Component during the morning and that three more should take their place during the afternoon. In fact two of the squadrons which went over in the morning remained to carry out patrols in the afternoon as well, so that five "visiting" Fighter Command Squadrons were operating from French soil during the second part of the day. The Squadrons concerned in the day's work were Nos. 17, 32 and 151 together with the specially formed 'composite' squadrons Nos. 56/213, 111/253 and 145/601, all of which were equipped with Hurricanes. It will be noticed that four^{XX} of the flights amalgamated into these composite Squadrons were from units which had already been called upon to send one flight to the R.A.F. Component under the 'eight-flights' reinforcement scheme. The operations carried out by these aircraft are considered below in conjunction with those of the R.A.F. Component.

In addition to furnishing the six visiting Hurricane Squadrons for France, Fighter Command during the day carried out two patrols by Spitfire Squadrons over Ostend, where ships were embarking refugees. A patrol during the hours of darkness was also maintained over the area Bethune - Merville - St. Pol - St. Omer by single Blenheim aircraft of No. 604 Squadron.

FIGHTER OPERATIONS. (b) R.A.F. Component.

The additional forces at the disposal of the R.A.F. Component during May 17th amounted to the equivalent of ten squadrons - eight reinforcing half-squadrons and six 'visiting' squadrons for the day only. The eight reinforcing flights were simply distributed round the R.A.F. Component Squadrons, which were now falling short of aircraft and pilots; they were thus inevitably used as replacements rather than reinforcements. The visiting squadrons of course preserved their identity.

The main patrols of the day were flown well forward. The details left are very incomplete, but it is apparent that offensive patrols were carried out in front of the B.E.F. along the Dyle (Louvain - Wavre) and the Senne (Vilvorde - Brussels - Brain-le-Compte). JU.87s and ME.109s were sighted here in the afternoon and evening; and the first formation of JU.87s, about twenty four aircraft strong, was successfully broken up by one of the visiting Hurricane Squadrons (No.17), who claimed five machines destroyed and several more damaged. The squadron was, however, attacked by eighteen ME.109s while returning to Merville, and one Hurricane was lost. Two or three hours later - at about 1900 hours - ten ME.109s were successfully engaged between Ath and Brussels, but a formation of JU.87s, sighted in the distance, managed to elude the British fighters.

Patrols were also flown to protect the right flank of the B.E.F., and the French First and Ninth Armies. In the forward zone of the First Army, Wavre - Gembloux - Charleroi was covered in the early morning, while the B.E.F. flank

^{XX} i.e. the flights from Squadrons No. 56, 213, 253 and 601. See above, page 245-246.

was protected by a patrol - Lille - Valenciennes - Douai. The main engagement in the latter area occurred at about 1030 hours, when a visiting squadron (No. 151) attacked twenty JU.87s at 300 to 20 feet from the ground, and claimed the destruction of at least six of the enemy. Further to the south the area in front of the line Cambrai - St. Quentin was well covered (at the special request of General D'Astier), for frequent patrols were flown which together embraced Cambrai, Le Cateau, Landrecies, Avesnes, Guise and La Capelle. In this area at least two major combats were fought with success during the afternoon. During the day, over the whole field covered by the R.A.F. Component, at least twenty enemy aircraft seem to have been shot down for the loss of seven Hurricanes in combat.

In addition to these patrols, and to those for local defence, protection was arranged for the Bomber Command operation at Gembloux at 0600 hours.* This proved ineffective, for though the Hurricanes were over the target area at the appointed time, the bombers were intercepted and shot down before they reached the area. This incident seems to have given the death-blow to the 'economy' arrangement by which bombers would have the benefit of fighter cover only over the target area and on the first stages of the return: for in the evening B.A.F.F. Headquarters confirmed with R.A.F. Component that in future the Hurricanes would rendezvous with Bomber Command aircraft over a fighter aerodrome (Vitry) - and would thus be able to escort them to the target.

North
B.A.F.F.
Form 540
Entry of
1930 hours
May 17th

FIGHTER OPERATIONS. (c) A.A.S.F.

The operations of the A.A.S.F. Hurricanes were of a restricted character on May 17th, partly on account of their move, partly on account of the very small number of aircraft left serviceable. In the early hours of the day No. 1 Squadron aircraft left Berry au Bac to share Conde - Vraux with the three remaining Blenheims of No. 114 Squadron: and during the morning A.A.S.F. Headquarters was out of touch with No. 67 Wing, which received its operation orders direct from B.A.F.F.

At least one patrol in the morning was carried out in response to the French request for protection over the area through which the remnants of the Ninth Army were retreating: and the aircraft concerned (of No. 73 Squadron) thus covered the same territory as the more southerly patrols of the R.A.F. Component. The line covered was Avesnes - La Capelle - Guise: some six or seven enemy aircraft were seen, but the Hurricanes were apparently unable to engage.

The remaining patrols of the day seem to have been for local protection in the Chalons-sur-Marne area, except for an offensive patrol in the morning, when five aircraft of No. 1 Squadron were ordered to seek dive-bombers east and west of Sedan. The Hurricanes, however, encountered near Vouziers a strong formation of ME.110s, which they engaged.

* See above, pages 254-255

MAY 17TH

As the combat developed more ME.110s appeared, until the five Hurricanes faced a total of some twenty five of the enemy. Three Hurricanes were lost, but ~~five~~ ME.110s were claimed as definitely destroyed.³²

At the end of the morning's work there remained seven Hurricanes serviceable with No.73 Squadron and two with No.1 Squadron.³² Twelve replacements were reported to be waiting at Amiens-Glisy - the usual delivery aerodrome for the A.A.S.F. (Reims-Champagne having been evacuated) - but collecting them was no easy task in the circumstances of the moment.

PREPARATIONS FOR RETIREMENT OF THE R.A.F. COMPONENT.

During the day the reports that came in of an enemy advance towards Cambrai, and even beyond Cambrai towards Arras, conflicting and uncertain as they were, naturally caused the R.A.F. Component 'Battle' Headquarters in Arras to mobilise for retirement. Similar instructions were given to the Headquarters at Maroeuil and to No.14 Group Headquarters at Achicourt. It also seems that an order was given to R.A.F. Component units in general to be prepared to move at thirty minutes notice. By noon it appeared that the forces approaching Cambrai and Arras were retreating Frenchmen rather than advancing Germans and 'Battle' Headquarters consequently unpacked equipment and stayed in Arras. The administrative Headquarters at Maroeuil was, however, ordered to move at about 1700 hours, and shortly before midnight the greater part of its personnel left for Boulogne in a special train.

In addition to this move of the rear headquarters to the coast, R.A.F. Component also ordered some of the more exposed units to places of greater safety. No. 70 (Strategical Reconnaissance) Wing Headquarters at Rosières, in the extreme south of the R.A.F. Component area, was ordered to retire westwards to Poix, which was reached at 1600 hours. The two squadrons of the Wings executed a corresponding movement, No. 57 Squadron moving from the main aerodrome at Rosières to that at Poix, and No. 18 moving from Meharicourt (Rosières satellite) to Moyencourt (Poix satellite). No. 50 Wing Headquarters at Athies, a few miles east of Rosières and therefore still more exposed, was withdrawn north to Maroeuil.

RETIREMENT AND REORGANISATION OF THE A.A.S.F. (May 17th - 19th)

The situation among the operational units of the A.A.S.F. at the close of May 16th was that two of the

³² The figures are taken from the Squadron Form 540. A.A.S.F. reporting the engagement to B.A.F.F. gave a different version: forty ME.110 encountered and four destroyed for the loss of two Hurricanes.

³² There seems to be no record of either the strength or the operations of No.501 Squadron on this day.

MAY 17TH

Bomber Wings (Nos. 75 and 76) had been withdrawn to the South Champagne area, while the third (No. 71), apart from advance parties despatched to the B.E.F. Rear Area, remained on its old grounds by the Marne. No. 67 (Fighter) Wing had become very split up - Wing Headquarters and most of No. 73 Squadron had come into the No. 71 Wing territory near the Marne, No. 501 Squadron had begun a move right down to the South Champagne, while No. 1 Squadron remained in some danger at the north of the old A.A.S.F. area on the Aisne. During May 17th decisions were taken which, though they involved a great sacrifice of strength, enabled the force to achieve mobility and regain cohesion. At the same time it was now possible to put a term to the confusion that had reigned in some units ever since the first withdrawal instructions had been issued.

The essence of the policy brought out to B.A.F.F. Headquarters on May 17th from Air Ministry by Air Marshal Joubert was that the A.A.S.F. should be reduced to a strength which could be maintained, and which would enable full mobility to be achieved. Air Marshal Barratt therefore decided that the existing three fighter squadrons should be preserved, but that the eight Battle and two Blenheim bomber squadrons should be reduced to a total of six Battle squadrons. This involved the elimination of No. 71 Wing as an operational formation. By May 18th the Wing Headquarters was moving from the Marne to base at Nantes, where it took over the refitting of two Battle squadrons - No. 105, which had been part of the Wing, and (by May 22nd) No. 218, which had belonged to No. 75 Wing.¹ Both of these squadrons had fallen to a strength of two aircraft; and these together with the crews (eighteen of which were left between the two units) were distributed among those squadrons which remained operational. The two Blenheim squadrons of No. 71 Wing were ordered to proceed home to refit; the remaining nine serviceable aircraft were delivered to the R.A.F. Component Blenheim squadrons on May 18th and 19th, and the squadron personnel, after ten or eleven days at Nantes, left for Cherbourg on May 28th, en route for the United Kingdom.

The decision to reorganise the A.A.S.F. on the above basis naturally enabled the unsatisfactory situation on the Marne aerodromes to be liquidated. By May 18th all remaining units of No. 71 Wing were leaving the Marne grounds for base, after a day of speculation and confusion on the 17th. No. 67 Wing H.Q. and the Hurricane Squadrons were now withdrawn to be regrouped with the rest of the A.A.S.F. in the South Champagne area - a process which was complete by May 19th.

COMMENTARY ON THE A.A.S.F. MOVE AND REORGANISATION.

It is apparent that this first move of the A.A.S.F. as a whole was accomplished only with the greatest difficulty. Even with the borrowed French transport² there were far too few vehicles to accomplish the job with the maximum

¹ Its place was taken in No. 75 Wing by No. 150 Squadron, which still had seven Battles serviceable, and was therefore excepted from the fate of the other squadrons of No. 71 Wing.

² See above, page 240

MAY 17TH

IIH2/
Report on
A.A.S.F.
page 59

efficiency, and the full use could not even be exacted from what was borrowed. On this subject the words of the A.A.S.F. Report provide a sufficient criticism; "The last moment provision of a large number of vehicles in Paris produced the problem of collection at a time when every unit driver was required for mobility purposes. Similarly, hasty distribution between units by drivers who were hurried out from England by air and had no knowledge of their vehicles or of France or unit locations was bound to prove unsatisfactory. In these circumstances, it is not surprising that certain vehicles failed to reach the units to which they were allotted, and that some squadrons had to make arrangements to march away from their aerodromes. All the new vehicles arrived without starting handles, jacks, tools or spares of any description, which greatly reduced the serviceability and utility of those vehicles. Investigation later revealed that all spares etc. had been loaded in one lorry which had been sent to Base by someone who was under the impression that they were unwanted spares".

The result of the M.T. deficiency, and of the other exacting circumstances in which the move was undertaken, was that A.A.S.F. bombing operations virtually ceased for three days (May 16th-18th inclusive): for it was not until 0330 hours on May 19th that the Squadrons on the new aerodromes in the South Champagne were fully supplied with petrol, bombs and ammunition for operations. Another significant feature was that, had there been no opportunity to return to the abandoned area, very large quantities of equipment would have been lost. Fortunately, however, the German advance, which had seemed so threatening on May 15th, stopped short at the Aisne, which, with the Somme, became the left and southward flank of the enemy. This enabled salvage of equipment from most of the old A.A.S.F. area to continue until the next move - though the shortage of transport implied a cessation of salvage operations should the force be placed at notice to move of 12 hours or less.

Report on
A.A.S.F.
Page 60.

Report on
A.A.S.F.
Page 48

ibid
page 51

A.H.B.
IIH2/376
Encl. 1B
para. 14

By June 1st, when salvage from the old A.A.S.F. area ceased, nearly all equipment had in fact been cleared except petrol 230 and oil, which were handed over to the French. The evacuation of S.C.I.'s and 'W' bombs presented a particular difficulty but a most pressing commitment, and was successfully achieved, in spite of enemy air attack during the concluding stages of the process. The evacuation to Base of surplus bomb stocks of other types from the forward air ammunition park at Nogent L'Abbesse was subsequently completed by the French. Many miles of cable were also recovered from the Reims area. One important loss was that of six three-inch guns left north of the Aisne: a party endeavouring to recover these was captured by the enemy.

The fact that so much equipment which might have been lost was actually recovered was not allowed to obscure the main lesson of the move - the need for 100% mobility.

From this point onwards every measure was taken to ensure this, for in addition to the reduction of operational strength by four squadrons, and the retention of borrowed lorries, stocks in forward areas were drastically cut down. In the result, mobility was actually achieved for all units, including the army construction units working on aerodrome maintenance in the forward areas. Even after these measures, however, there was never sufficient M.T. to create a reserve pool. Moreover, though no one can doubt that in the circumstances of the moment reduction of strength was a wise policy, it is a commentary on the earlier failure by Air Ministry to concentrate on mobility that so drastic a measure was necessary.

MAY 18TH

MILITARY SUMMARY

The Belgian and main B.E.F. front. In the North the main French and Belgian forces were withdrawing from the Scheldt towards the Canal Terneuzen-Ghent, whence it was intended that the new line should follow the Escaut. By midday an intermediate position had been achieved running from Tamise through Termonde to Alost, with the B.E.F. continuing the line to the right along the Dendre. At night the 'last stage' began, and by the following morning the main movement had been completed, though Belgian rearguards remained west of the Canal with instructions to hold out during the day. The B.E.F., its withdrawal completed successfully, now prepared to defend its sector of the Escaut, which ran from Audenarde to Maulde. Neither the Belgian nor the British retirement was seriously harassed by the enemy.

The First Army front. To the right of the B.E.F. the French First Army was retiring with the intention of holding the Escaut from Maulde through Conde and Valenciennes. Thence the Franco-Belgian frontier positions were held east to Maubeuge, and from there the Sambre and Oise were intended to constitute a defensive line southwards.

The Sambre-Oise Sectors. During the earlier part of the day the French presumably gave out optimistic reports of the situation in the Sambre-Oise sectors, for the B.A.F.F. Intelligence Summary of 1330 hours intimated that the enemy appeared to have lost the bridgeheads over the Oise (i.e. at Ribemont and Longchamps) that he had gained the day before. Even at 1900 hours in a further report from B.A.F.F. Headquarters, a note of optimism was maintained, in striking contrast to the actual purport of the facts. The French, it was stated, standing on the river lines were "holding firm" except for breaks at Landrecies ("where a column has penetrated to Jolimetz"), and at Mont D'Origny ("where a column has crossed the Oise and passed South of St. Quentin to Peronne"). The message reported that the enemy was "becoming very exhausted", but intimated that, should a withdrawal be necessary, the Sambre-Oise line would be abandoned in favour of continuing the Escaut positions from Valenciennes through Cambrai and St. Quentin to La Fere.*

By 2200 hours a further report stated that the situation on the Oise had "once more become confused": that the enemy had once again crossed the river at several points: and that a force of unknown strength was said to be in the neighbourhood of Peronne. Even this was still an understatement. In fact the Sambre had been crossed at Landrecies, leading to enemy progress northwards nearly to Le Quesnoy and westwards to include the capture of Le Cateau: and the Oise had been crossed at Noyales, Mont d'Origny, Neuville and Ribemont, leading to the capture of St. Quentin and the appearance of advanced enemy reconnaissance forces at Peronne.

* Such a withdrawal, it may be remarked, would have done little to harass the column reported at Peronne, twenty miles west of the Escaut.

Doc.No.9
May 18th

Doc.No.20
May 18th

Doc.No.23
May 18th

W.O.Int.
Summary
No.259
Doc.No.9
June 22nd

May 18th

The last important North to South rivers - Sambre-Oise and Upper Escaut- had now been crossed: and no further possibility existed of forming a line which would bar the enemy from the Channel coast.

RECONNAISSANCE

During May 18th the Corps Lysanders reconnoitred the B.E.F. front line positions along the Dendre and kept the country in front of the river under observation. No considerable approach by enemy troops was reported, though at 1015 hours some movement was seen in the direction of Alost.

On the right flank of the B.E.F., No.2 Squadron carried out tactical reconnaissance in the Cambrai area for Macforce, but its reports have not survived. Nos.16 and 26 Squadrons also carried out several sorties in this area, under G.H.Q. orders. No significant movement was seen in the early morning over the wide area Peronne-Ham - La Fere - Le Cateau though enemy bombing was observed near St. Quentin. Repeat sorties were ordered for the same area at 1030 hours, but it is not recorded whether they were carried out, and if so, what they observed. By the evening however, No.16 Squadron was reporting enemy tanks at St. Quentin and just South of Peronne: and the presence of enemy opposition in strength in this region was indicated by the loss of four of the squadron aircraft. A column of A.F.Vs. (though of uncertain identity) was also reported on the St. Quentin-Ham road during the afternoon by the pilot of a Gladiator sent out to reconnoitre the evacuated aerodrome at Rosieres.

The R.A.F. Component Blenheims in their early morning sorties also covered both the country in front of the B.E.F. and that on the right flank. No significant enemy movement was seen. Between 0800 and 0900 hours, however, considerable movement was reported in the Avesnes area and towards Landrecies. In the evening large columns of enemy horse-drawn transport were observed moving up towards the Dendre. Losses were heavy during the day, as four of the eight Blenheim sorties despatched failed to return.

BOMBING OPERATIONS: (a) Landrecies - Le Cateau

No bombing was carried out by the A.A.S.F. Battles on May 18th, since the difficulty of stocking the South Champagne grounds with bombs precluded operating more than a very few aircraft. Six Battles were 'available' during the day, but were finally stood down in preparation for a projected operation by the entire force on the following day. The daylight bombing was thus carried out by the Blenheims of the R.A.F. Component and of Bomber Command: unfortunately the arrangements made for their co-operation proved to be far from perfect.

During the day considerable difficulty was experienced in establishing the degree of enemy progress, save on the northern front. So much was this the case that B.A.F.F. Headquarters at 1315 hours despatched a signal to No.3 Air Mission which tells its own story: "Your reports continue to be invaluable. Position on your front consequently clear. Position on front of Ninth and First Armies now very fluid. Air reconnaissance is producing conflicting reports. Difficult to obtain timely verification. A.M. endeavouring to obtain authority to move you down to the Cambrai area to assist in clearing up the situation....."

MAY 18TH

The situation did indeed need "clearing up": and the entries for the morning of May 18th in the B.A.F.F. Headquarters telephone log explain how difficult it was to do so. At 1015 hours a conversation between Air Marshal Barratt and S.A.S.O., R.A.F. Component (G/Capt. Goddard) revealed the following state of affairs. The Ninth Army had requested an attack on three columns observed approaching the Sambre and Oise crossings leading to Le Cateau and St. Quentin. R.A.F. Component had found, by reconnaissance, only one of these columns (the northern, crossing the Sambre towards Le Cateau at Landrecies), and G.H.Q. had asked for this to be attacked. G/Capt. Goddard had therefore asked D.H.O. (Air Commodore Stevenson) to arrange for Blenheims of No.2 Group to come over to the R.A.F. Component area, and operate from there. G.Q.G. of the First Group of Armies had then expressed a doubt whether the column was not, after all, part of the First Army retreating: and G/Capt. Goddard had therefore arranged for the attack to be cancelled. The Blenheims were still scheduled to arrive, however, and Air Marshal Barratt gave R.A.F. Component permission to issue an executive order for the attack should the column be identified as enemy, and should communication between R.A.F. Component and B.A.F.F. prove impossible. The identity of the columns continued to be in doubt throughout the morning.

North
B.A.F.F.
Telephone
Log.18/5/40.
Entries of
1015,1115,
1130,1200,
1205,1220
hrs.

By the afternoon, R.A.F. Component seems to have entertained no further doubt as to the identity of the Northern column and arrangements were therefore made to launch an attack against it. It had already been decided that two Blenheim squadrons of No.2 Group should arrive by 1410 hours at R.A.F. Component grounds, where it was hoped that an up-to-date "picture" would be available: and it was arranged that these two squadrons, together with one of the R.A.F. Component Blenheim squadrons should then rendezvous over Douai at 1545 hours with an escort of four fighter squadrons, and proceed to bomb the column approaching Landrecies. In fact, however, one of the Bomber Command squadrons (No.21) which landed at Poix, was there given a wrong time to take-off (1545 hours - by which time it should have been over Douai). The squadron thus found itself unable to participate in the operation. The remaining Bomber Command Squadron, which had landed at Abbeville, left with a Hurricane escort, and together with R.A.F. Component Blenheims of No.70 Wing, bombed troops and communications on the eastern side of Landrecies, and the eastern exits of Le Cateau.

A repeat operation against the same line of advance was then ordered for the evening. The intention was that No.21 Squadron, which had already proceeded to Poix and missed its rendezvous for the first operation, should be joined by another twelve Blenheims of No.2 Group (from Squadrons No.107 and 110), and that these forces should operate in conjunction with Blenheims and Hurricanes of the R.A.F. Component. Again, however, arrangements went awry, from a combination of very late orders, a last minute change of time and place for rendezvous, the incorporation of an additional target, the German advance, and the growing paralysis of communications. By 1600 hours ordinary communications had broken down between R.A.F. Component Headquarters and Poix: and an aircraft from Headquarters arrived before 1730 hours with orders for No.70

MAY 18th

Wing to evacuate the aerodrome. It thus came about that No. 21 Squadron, which should have been retained at Poix for the operation, was sent home at 1736 hours just as Bomber Command was ordering a further twelve aircraft of No. 2 Group to join it. A raid on Poix by a dozen or so Heinkels within the next half an hour, though it caused no damage, must have increased the general difficulties of the situation. The first flight of the outcoming Blenheims from No. 2 Group then landed at Poix at 1935 hours, - fifteen minutes late on their E.T.A. given by Air Ministry - and were promptly ordered to return home, on the ground that they were too late to accomplish their task. The second flight (from No. 110 Squadron) landed at Poix at 1955 hours to find evacuation in full swing. They then proceeded to Abbeville, where they encountered a state of "general confusion", and where, in the absence of any fighter escort or operational instructions, they were advised to return home the following morning. The 'repeat operation' thus came to naught, and it would in consequence not be worth discussing but for its striking lesson in the importance of avoiding unnecessary complications. Allowing for all the difficulties of an extremely difficult situation it is still clear that on May 18th too many cooks were helping to spoil the bombing broth.

North
B.A.F.F.
Telephone
Log 18.5.40.
Entry
2003 hrs.

During the evening Air Marshal Barratt again protested to D.H.O. against the despatch of No. 2 Group Blenheims to operate from the R.A.F. Component area.

BOMBING OPERATIONS (b) By night. Communications on and near the Meuse.

In accordance with the War Cabinet's instruction of May 16th, * a part of Bomber Command's night effort was again directed against the Meuse crossings. The number of sorties against these objectives was, however, smaller than on the previous night, for the effort was limited to the equivalent of the two 'heavy' squadrons normally at the call of B.A.F.F. Twelve Wellingtons and twelve Hampdens were despatched against bridges and communications at Namur, Dinant, Yvoir-Anhee Givet and Gembloux. Of these twenty four sorties three failed to bomb any target, but the majority attacked their primary objective, claiming hits on one intact bridge and one partially destroyed bridge. No aircraft was lost from the operation.

North
B.A.F.F.
Form 540
Entry of
1100 hours
May 18th.

During the morning, B.A.F.F. also requested Bomber Command to lay 'W' mines in the Meuse that night: but received the reply that this could not be accomplished before the night 19/20th, and that in any case photographs of the Meuse bridges would first be required.

BOMBING OPERATIONS (c) By night, Railways and Oil Plants in Germany.

The usual harassing sorties were devoted to the marshalling-yards at Köln Eifeltor, Wedau and Vohwinkel.

* See above, page 256

MAY 18TH

North
B.A.F.F.
Form 540
Entry of
1625 hours
May 18th.

Twelve Wellingtons operated without loss against these targets, and eleven claimed to have bombed their primary objectives. Another project for attacking German communications was mooted, but not put into effect. Following up an earlier suggestion advanced by D. of Plans and the French General Staff, * B.A.F.F. Headquarters asked A.A.S.F. if they would endeavour to derail a moving train near Gerolstein, with the intention of blocking a vital German supply route to the Meuse. A.A.S.F. however, replied that lack of adequate D/F facilities made this an unsuitable target.

The oil plan was further pursued. Twenty four Whitleys operated against the domestic oil refinery for high grade lubricants at Hanover (Misburg), and of these nineteen claimed to have reached and bombed the target, causing fires and explosions. Two aircraft were lost from the operation, one of these being shot down into the sea on the outward journey by a Me. 110 which in turn was claimed as destroyed.

FIGHTER OPERATIONS (a) Fighter Command

The arrangement was continued by which six squadrons of Fighter Command - the same six as on the previous day - were sent over to the R.A.F. Component. The organisation of this scheme did not proceed without hitches. Two of the three squadrons intended to arrive in the morning were very late in making an appearance, for which fog and conflicting orders on aerodrome destinations were to blame: and one of the three squadrons despatched from England in the afternoon had to leave without the prearranged guiding aircraft, since these were late in coming over from France. The operations which the squadrons carried out when they reached France are detailed under the R.A.F. Component.

In addition to supplying these visiting reinforcements Fighter Command also carried out two patrols over Ostend by Spitfire Squadrons, as on the previous day.

FIGHTER OPERATIONS (b) R.A.F. Component

The R.A.F. Component Squadrons together with those of Fighter Command under R.A.F. Component operational control for the day carried out a wide variety of tasks. The records do not permit an exact statement of what proportion of the fighter effort was given to each duty, but it is clear that the following tasks were carried out:-

- (1) Offensive patrols over the country west of Antwerp, to protect the Belgians during their retirement.
- (2) Offensive patrols along the B.E.F. front, and in advance of it. On one of these six Hurricanes were attacked from above by sixty Me. 109 near Brussels.
- (3) Offensive patrols in the Cambrai region - as a result of a wireless intercept at 0800 hours that enemy dive bombers were proceeding to this area.

* See above, page 235

MAY 18TH

- (4) Offensive patrols Avesnes-Vervins for the protection of the French Ninth Army. At least two major combats were fought during the day by Hurricanes in this area.
- (5) Protection to tactical reconnaissance on the B.E.F. front. The arrangement for this was to supply covering patrols by a flight in the early morning, at midday, and in the late evening: and to maintain one squadron at call, which, it was said, could be put up in twenty minutes in answer to an appeal by W/T from a Lysander.
- (6) Escort protection to medium reconnaissance.
- (7) Escort protection to bombers. Arrangements were made for four squadrons to escort the raid in the Landrecies-Le Cateau area, but the rendezvous was not kept by all concerned.
- (8) Aerodrome and local defence. The most eventful moments in this connection occurred at Vitry. The surviving records conflict in several respects, but an account may be pieced together to convey the broad story. Vitry was the advanced headquarters of No.52 Wing, and the main headquarters of No.61 (Fighter) Wing. On May 18th it was being used as a refuelling ground by visiting Fighter Command squadrons, in addition to serving as a base for its normal Hurricanes of No.61 Wing. It must thus have presented some attractions as a target, and more particularly as the pressure of operations, coupled with the lack of starter facilities, prohibited any wide dispersal of aircraft. At about 1500 hours He. 111s and Me.110s were intercepted in the vicinity, and soon afterwards some Hurricanes, taking off to escort our bombers, were pounced upon over the aerodrome by twelve Me.109s. These engagements apparently resulted in the loss of one or two aircraft on either side. Two or three hours later - at about 1800 hours - some German fighters appeared (variously given as Me. 109s or 110s.), and were chased away by Hurricanes on aerodrome defence patrol; and the Hurricanes claimed to have shot down four of the enemy ten miles South of Vitry. While the defence patrol was engaged in this pursuit, a fresh enemy force appeared, composed of eight or nine Dorniers and some Me.110s, and bombed and machine-gunned the aerodrome from very low level. A few Hurricanes took off after the raiding force, and claimed three or four victims for two losses to themselves: others were unable to get their aircraft started, and one of a pair of Hurricanes, flying over from Merville to investigate the cause of the explosions, was unable to engage as the pilot found that his guns were not loaded. The damage inflicted by the enemy varies, in the different descriptions, from "the aerodrome in ruins" to "the aerodrome operationally unaffected", and from about eight to twenty of our aircraft rendered unserviceable. At about the same time Heinkels were also attacking Poix aerodrome, but here the enemy bombs fell wide of the mark.

MAY 18TH

Few details of these fighter operations were reported to R.A.F. Component Headquarters during the day, for the move of Units consequent on the enemy advance was producing a crop of signals difficulties.

FIGHTER OPERATIONS (c) A.A.S.F.

During the day one of the A.A.S.F. squadrons was earmarked for duty with the R.A.F. Component. In consequence of the wireless intercepts about enemy dive-bombers proceeding to Cambrai, No.501 squadron was kept at fifteen minutes notice during the morning to take off for the northern area. At midday, however, its role was changed to defence of the South Champagne area, together with No.73 Squadron, which was now ordered there from Villeneuve. No.501 Squadron at this stage had six aircraft left serviceable: and No.73, which had received replacements, now had nine serviceable out of a total of seventeen. The latter squadron was, however, unable to operate at once from its new airfield, Gaye, since supplies of petrol and oil were not yet available there.

The role of support in the R.A.F. Component area was given at 1235 hours to No.1 Squadron. While the road parties of the Squadron proceeded to the South Champagne to share Allemanche with No.501 Squadron, all available aircraft of the squadron were ordered to Merville for the afternoon. The Hurricanes, however, did not succeed in reaching their destination: near St. Quentin, which they had thought to be in friendly hands, they were heavily fired at from the ground and one of their number was shot down. (The fire, it may be assumed, came from the German column first reported in this area during the afternoon). At a loss to understand the situation, the Hurricanes turned back and landed at Plivot for further instructions. By the time they had refuelled they were too late to reach the R.A.F. Component area that night, and were instructed to proceed to their new base in the South Champagne.

RETIREMENT OF THE R.A.F. COMPONENT

The progress of the enemy in the direction of Cambrai and Peronne caused further moves by R.A.F. Component units during the day. Rear Headquarters of the formation had now reached Boulogne: and Battle Headquarters prepared, shortly before midnight, to move on the following day to Hazebrouck. In the evening the Blenheim Wing and Squadrons at Poix were

Documents: ordered to withdraw to Crecy - an order which had to be delivered
Operations by air, since landline and W/T communication had broken down.
of No.70 Another main aerodrome - Vitry - was also evacuated after it
Wing had been bombed, the Hurricanes of No.61 Wing proceeding to
18.5.40 Norrent Fontes. Other units which had apparently received
no orders to move nevertheless did so: No.5 Signals Wing for
instance, in the early morning retired from Allonville to
Cherbourg without the prior knowledge of R.A.F. Component
Headquarters. The situation was undoubtedly now becoming
very confused. In the absence of so much primary
A.H.B. documentary material the effect of these moves may perhaps
II 2/584 be summarised by a quotation from the 'substitute' Operations
18.5.40 Record Book* of R.A.F. Component Headquarters:

* This was 'written up' after the evacuation and the loss of most of the R.A.F. Component records. In general it is very thin and not altogether reliable.

MAY 13TH

"It was no becoming very difficult indeed to obtain reports of our own air activity. Units were moving to other stations as their own became liable to the risk of air attack. These moves and the attendant delay in re-establishing communications entailed great delay or even prevented the obtaining of information."

MAY 19TH

MILITARY SUMMARY

The Northern front: In the north the enemy continued to keep in touch with the allied withdrawal, but exerted no great pressure. Not more than six divisions of infantry, with their reconnaissance groups, were, it was estimated, engaged in following up the Belgian army.

The line in the north, along which the allies were establishing themselves, ran, it will be remembered, from Terneuzen along the canal to Ghent, and thence along the Escaut. From Terneuzen to Audenarde it was held by some French divisions and the Belgians: from Audenarde to Tournai by the B.E.F. and from Tournai to Valenciennes by the French First Army. From Valenciennes the line was described from B.A.F.F. Headquarters in the morning as continuing southwards (i.e. in advance of the Escaut) to Le Cateau; and as being held in this sector by the Ninth Army. Le Cateau had, however, fallen on the previous day: and on May 19th, General Giraud, the new Commander of the Ninth Army, was taken prisoner with several of his staff. It thus appears that the remnants of the Ninth Army were still being pressed back rapidly, and by the night 19th/20th the defensive line was described as following the Escaut south-west from Valenciennes to Bouchain, and thence curving westwards along the Canal de la Sensée. Cambrai, however, was still in French hands at 2000 hours on May 19th.

The position was thus that the right flank of the retreating armies of the north was being continuously bent round to form, in conjunction with scratch elements from the rear, a defensive front to the south. By May 19th this had begun to take shape: but the difficulty of re-uniting this northern group of armies with those to the south of the enemy penetration was clearly so great that G.H.Q. began to discuss with the War Office the advisability of withdrawing on Dunkirk.

The 'Gap': It was now estimated that some twenty enemy divisions, of which eight or nine were armoured, and four motorised, were advancing through the gap in the allied line. In the words of a B.A.F.F. signal to Air Ministry at 1200 hours, there were "no organised forces opposing the main thrust to the west between La Fere and Le Cateau, only small elements of the Ninth Army with the British 23rd Division and the Seventh French Army reforming at Douai in reserve". The reorganised Seventh Army (now under General Frere) had, of course, no chance of standing successfully in the path of the advancing enemy, and on May 19th it began detraining at Peronne, in order to strengthen the front on the south of the German penetration. Its role was to stand along the Somme and Ailette between Peronne and Couchy-le-Chateau, and thus straddle the Oise, one of the historic avenues of military approach to Paris.

Document
No. 3
19/5/40.

Gort:
Despatch,
para. 31

W.O. Int.
Summary
No. 260

Gort
Despatch
para. 30

W.O. Int.
Summary
No. 260

Document
No. 4
19/5/40.

MAY 19TH

The Somme-Aisne line: The Allies, with forces already proved insufficient to hold the "short" line of the Dyle and Meuse, were thus now endeavouring in the north to hold the Escaut to Bouchain, and thence a great stretch to the west: while to the south of the German penetration they had equally to organise an enormously long defensive line along the Somme, the Ailette and the Aisne. Only weak territorial elements were available for the Lower Somme: from Peronne to Couchy-le-Chateau the Seventh Army was taking over, straight from a journey right across the allied lines of communication: while east of Couchy-le-Chateau and La Fere, through Montcornet, Rethel, Vouziers and Stenay, the reserve Sixth Army (under General Touchon) and the Second and Fourth Armies continued the line, linking up with the Maginot defences. The allied line to the south of the enemy was thus very weak on the left, stronger (but still weak) in the centre, and reasonably firm on the right. As yet, however, it was not tested, for the Germans, so far from attacking in this direction, actually demolished bridges over the Somme and the Aisne which the French had left intact. The enemy, in fact, contented himself with constituting a defensive flank of his own to the south and with resisting such efforts as the French made to press north from Laon and Montcornet. Meanwhile he threw his full strength into the advance north-west through the gap to the Channel coast.

W.O.Int.
Summary
No. 260

During the day, in consequence of the disaster which had met the French forces, General Gamelin found himself 'limoge', and his soiled mantle fell upon the shoulders of General Weygand.

RECONNAISSANCE

The difficulties of organised reconnaissance were now very great, as many units were on the move and communications were failing. No. 4 Squadron (II Corps) reconnoitred in advance of the B.E.F. front in the early morning, and established the fact that there was no immediate pressure in this direction. There are no records of reconnaissances by No. 13 Squadron (I Corps), for though orders were, in fact, sent to Authie at some time during the day for reconnaissance, it was found that the squadron had withdrawn to Abbeville. No. 2 Squadron (III Corps) appears to have continued counter-battery mosaic work in the Audenarde - Renaix area before its aircraft were ordered back to England in the evening. Nos. 16 and 26 Squadrons (G.H.Q.) despatched several sorties in the morning, and reported enemy columns on the roads Estrees - Peronne, Peronne - Albert, Peronne - Bapaume and Le Cateau - Cambrai. It was clear from this that Arras was in imminent danger. The morning's work was not accomplished cheaply, for two aircraft were lost, and one damaged, out of the six sorties carried out by No. 26 Squadron: and No. 16 Squadron lost three Lysanders through enemy air attack while flying spare pilots to Amiens-Glisy. In the evening the two G.H.Q. Squadrons, like No. 2 Squadron,

MAY 19TH

were ordered to return to England.

Apart from one sortie at first light, the Blenheims of R.A.F. Component did not operate in the morning, owing to difficulties of communication. The single sortie, however, reported an important target - a hundred enemy tanks to the north and north-east of Cambrai, in particular near the village of Abancourt. No further sorties were sent out until 1830 hours, when two reconnaissances were made by No. 52 Wing in advance of the main B.E.F. front: one of these was able to report an enemy movement developing towards Tournai. By the evening, all the strategical reconnaissance units had been ordered to return to England.

In consequence of the impossibility of operating the Blenheims over the greater part of the day, Hurricanes were briefed for two reconnaissance sorties in the evening in advance of the B.E.F. front. Results of these sorties were dropped at I Corps H.Q: the main points of interest were the movement of German transport and artillery towards Lessines, and the regularity with which the Hurricanes were fired at over our own lines.

BOMBING OPERATIONS: (a) Near Rethel

A special reconnaissance sortie which reported back to B.A.F. Headquarters at about 0900 hours indicated that the territory immediately north of the Rethel - Blangy stretch of the Aisne was full of German troops: and this confirmed information received from the French at 0500 hours that two enemy columns of mechanised infantry were moving westwards towards the Neufchatel - Montcornet road. The A.A.S.F. were by now ready to operate once more, though the defective state of communications entailed sending orders to certain squadrons by despatch-riders. The executive order for the attack was issued by B.A.F.F. at 0920 hours, and by 1040 hours the first Battles were over the target area - no mean feat in the given state of communications. For the most part the target proved to have gone "stale" - the area was not particularly crowded with Germans, though two or three villages (Fraillicourt, La Hardoye, Hauteville) were reported to be worth attacking. In the circumstances, a repeat attack which had been projected was therefore cancelled. Fighter cover was supplied by twenty-six Hurricanes of No. 67 Wing, but five Battles out of the ~~thirty~~ three which took off were lost.*

* The number of Battles taking part in this operation is difficult to establish. A.A.S.F. Headquarters sources give 33, but B.A.F.F. Headquarters sources give 17. The latter figure may, however, only be for aircraft which actually found a target to attack, though it corresponds with A.A.S.F. Battle strength reported just before the operation. The figures from the squadron operations record books add up to 23 sorties, plus aircraft of two squadrons which mention no number.

MAY 19TH

No further operations were carried out during the day. Air Marshal Barratt was anxious to attack the tanks reported in the morning, north of Cambrai, but had no forces with which to do this, in particular because no help was available from the No. 2 Group Blenheims. Bomber Command was unwilling to operate during the morning, though agreed to hold two Blenheim squadrons at one hour in the afternoon. These, however, were not called upon.

BOMBING OPERATIONS: (b) By night. Communications on and near the Meuse and in advance of the B.E.F. front.

The night attack on the Meuse was maintained by a few "heavies" of Bomber Command, four Wellingtons operating against Givet. In addition, a fresh form of attack was executed in the same area, for eleven Wellingtons dropped incendiaries on the forests around Fumay and Bouillon, with the object of firing enemy dumps and harbouring places. The aircraft engaged on this task started many fires, without being able to ascertain precise results: and they received some damage from accurate anti-aircraft fire over the area.

It had been intended that the high explosive bombs also carried by the fire-raising aircraft should be used for attacking the Meuse crossings at Hastieres and Revin. In the afternoon, however, these targets were cancelled in favour of others further north, and more directly related to the B.E.F. Instructions were given to the incendiary-carrying aircraft to use their high explosives against bridges over the Brussels - Charleroi Canal, at Tubize and Nivelles, while eight further Wellingtons were to attack other crossings over the same canal at Courcelles and Hal. In addition, four other Wellingtons attacked railways and roads near Gambloux. In all, nineteen heavy aircraft - none of which was lost - thus operated against German communications in France.

North B.A.F.F.
Telephone
Log.
1115 hours,
19.5.40.

It was also arranged with B.A.F.F. Headquarters during the morning that Bomber Command aircraft should endeavour to mine the Meuse in the region of Dinant, Givet, Namur and Montherme, with the intention of destroying pontoon bridges erected by the enemy. The 'W' (Mark 3) bombs were to be used for this purpose, and No. 4 Group was instructed shortly after midday to prepare for the operation, which nevertheless does not seem to have been carried out on this night.

BOMBING OPERATIONS: (c) By night. Oil targets in Germany.

In order to take advantage of the good moonlight conditions, the major effort for the night was again directed against German oil targets. Twelve Whitleys were despatched with the Gelsenkirchen (Buer) synthetic oil hydrogenation plant as their primary objective, but only one or two of these claimed to have bombed it, and even then without observing results. Another aircraft

MAY 19TH

claimed a big success against a secondary objective, the synthetic oil plant at Duisburg (Meiderich), but the remainder were reduced to bombing railways. One pilot stated that he had reached Gelsenkirchen, but failed to identify the target in spite of making eight runs over the area.

In addition, thirty-six Hampdens were given as a primary objective the domestic oil refinery for high grade lubricants at Salzbergen (near Rheine). This target, well outside the industrial haze of the Ruhr, proved to be far easier to locate than that at Gelsenkirchen, and twenty-seven aircraft claimed to have attacked it with success. Most of the remainder bombed railways.

From the total of forty-eight Whitley and Hampden sorties over Germany, two Whitleys were lost.

BOMBING OPERATIONS: (d) Policy Discussion (May 16th - 20th)

The main features of the first week of intensive bombing operations against the enemy were clearly the very heavy losses sustained during daylight by the medium bombers in their "collaboration" tasks, and the remarkable immunity enjoyed by the heavies at night in their strategic assault on German oil. It was not surprising, therefore, that the War Cabinet's decision of May 16th, by which a considerable proportion of the "heavy" effort was to be directed against the Meuse crossings, should have met with an energetic protest from the A.O.C.-in-C., Bomber Command.

On May 17th Air Chief Marshal Portal forwarded to V.C.A.S. a memorandum in which he argued that "direct support..... (to the Allied land forces in France)..... should be given only by the Blenheim Group, and by the equivalent of the two Heavy Bomber Squadrons originally detailed for the collaboration role". The A.O.C.-in-C. urged powerfully that in land operations the bomber was only likely to be effective on the side which had the initiative: that our defensive bombing, operating from the United Kingdom, was working on information hours out of date: that bridges and roads in defiles were very heavily defended, and difficult to hit: and that very little effect could be expected from attacking lines of movement and supply by night. Moreover, the A.O.C.-in-C. maintained, attacking movement by troops and supplies did not affect the air situation, which was the root cause of the crisis on the ground: whereas the bombing of objectives in Germany was likely, not only to damage the German war machine in general, but to force the Germans to withdraw fighters and flak from the front to the rear, and to divert their bombing offensive to objectives in England. "I therefore urge with all the force at my command" the A.O.C.-in-C. concluded, "that our bomber force should be employed immediately and almost wholly in the heaviest possible scale of attack against vital military objectives in Germany, and that only the absolute minimum should be employed in direct support of the land forces". In a covering letter to V.C.A.S., Air Chief Marshal Portal also

D.D.B.Ops
folder
"Employment
of Air
Striking
Force"
Enc.64

May 19th

suggested that Air Ministry was getting 'rather near' to trying to control actual bombing operations: and he requested that he should be given "a general directive for the Heavy Bombers, and then be left to get on with it".

This protest from Bomber Command reinforced what was, of course, the normal Air Staff view, and it also linked up effectively with an earlier policy judgment expressed by the A.O.C.-in-C., Fighter Command. Writing on May 14th - before the War Cabinet had decided to launch the attack against German industrial objectives - Air Chief Marshal Dowding gave as his opinion "that we ought at once to institute an intensive attack on the enemy's oil resources", and in particular because we should thereby hope to draw the enemy's air attack on to this country. Fighter Command would then engage the enemy with maximum effectiveness over our own soil: and this was inevitably, in the A.O.C.-in-C's eyes, a better policy than despatching more and more Hurricane reinforcements to France "until I have been bled white and am in no condition to withstand the bombing attack which will inevitably be made on this country so soon as our powers of resistance fall below a level to which we are already perilously close".

A.M. file
S.46368
(Part I)
Enc.56a

D.D.B.Ops
Folder
"Employment
of Air
Striking
Force".
Enc.61.

The preference of the A.O.C.s-in-C. of Bomber and Fighter Command for an air offensive directed against German industrial targets naturally received every support in the Directorate of Plans. The arguments of D.D.Plans (Op), (G/Capt. Baker), produced on May 18th, ran as follows:- that the most vital and vulnerable objectives in Germany were some twenty-four oil plants, the great majority of which might very possibly be destroyed within the next few days if the whole effort of the heavies were concentrated against them. On the other hand, even if the whole of the heavy bomber effort were diverted to close support of the allied armies, it could not have more than "a limited, local and very temporary effect on the land operations". If part of the heavy bomber force were directed to that role, it could naturally achieve even less, while the remainder would be insufficient to operate the oil plan effectively. Moreover, the oil plan was the only one which might have the effect of relieving pressure on the armies by causing a diversion of German air effort against this country. D.D.Plans' conclusion was thus that all the heavies should be employed to attack German oil. The remainder of the bomber force should, he allowed, be directed against the German armies in France, but should operate by night only during the coming week of favourable moon conditions, in order that effort during a critical phase might be sustained. All these arguments received complete endorsement from D.C.A.S. (Air Vice-Marshal Sholto Douglas), and, in general, (with a reservation that there was a case for the employment of medium bombers by day in a really critical situation) from D. of Plans (Air Commodore Slessor).

ibid
Enc.62

ibid.
Enc.65

In consequence of these representations and discussions, V.C.A.S. then held a conference with the Air

MAY 19TH

A.M. file
S.46368
(Part I)
Enc. 59a

Staff on May 19th. As a result of this the following conclusions on bombing policy were reached: (1) that, in view of the prohibitive wastage rates by day, and the consequent diversion of fighters to escort duty, the medium bombers should, during the favourable moon conditions, be used by night only: (2) that, after agreement with the Admiralty, suitable and available aircraft from Coastal Command should be placed at the disposal of Bomber Command, to increase the available 'collaboration' effort of the medium bombers: (3) that during the favourable moon conditions the heavies should be used entirely on the main plan against oil targets and marshalling yards: and (4) that Bomber Command should operate at maximum intensity during the moonlight, and then be conserved to re-establish its effort for the next moon phase. This policy was approved by C.A.S., who, however, made the proviso that "on no account must we go back on what we promised the French as a result of the Prime Minister's visit to Paris. We must always make this clear to Barratt and be certain that he gets all the 'collaboration' the French require". The above conclusions - minus the C.A.S.'s proviso - were then despatched as a directive to the A.O.Cs-in-C., Bomber Command and B.A.F.F.

ibid.
Enc. 60a
and 61a

North B.A.F.F.
Telephone log
2155 hours.
19.5.40.

X870 to B.C.
repeated
B.A.F.F.
from A.M.
0010 hours
20/5/40.
X885 to B.C.
repeated
B.A.F.F. from
A.M. 1146
hours 20/5/40

During the course of the evening of May 19th Air Marshal Barratt became aware that the Blenheims of No.2 Group were no longer to be available for daylight operations. He apparently received this information, not from the Air Ministry directive (which did not arrive till the following morning), but during the course of a telephone conversation with Bomber Command. He therefore telephoned D.C.A.S., and protested vigorously. His protests evidently carried weight, for just after midnight a signal was sent to B.A.F.F. and to Bomber Command to the effect that C.A.S. approved the new policy "subject at request of C.-in-C. B.A.F.F. to collaboration requirements of French being met in full". During the morning of May 20th this was amended to read in a more precise sense "subject to collaboration requirements of C.-in-C., B.A.F.F. as agreed with French High Command being met in full".

The united opinion of the Air Staff and of the A.O.Cs-in-C. of Bomber and Fighter Commands was a powerful factor: but it was not as potent as the pressure of events in France. Early on May 20th the danger to the B.E.F. was seen to be acute, and D. of Plans, who was visiting France, signalled D.C.A.S. urging that the mediums should be used by day to relieve the critical situation developing near Arras. An appeal also came from General Georges, after consultation with General Dill, that the maximum effort of our bombers should be exerted, by day and by night, against enemy columns in the Arras area. Subsequent conversation with General Dill, however, showed that he fully appreciated the danger of using the heavies in collaboration tasks by day, and that he had not intended this to be suggested. Air Marshal Barratt was, of course, equally averse from any such idea, and the policy thus adopted was to employ some of the mediums, under strong fighter escort, on collaboration by day, and the remainder,

MAY 19TH

X912
To B.C. etc.
from A.M.
1420 hours
20/5/40

with the heavies, on collaboration by night. A directive to this effect was sent to Bomber Command during the afternoon..... "the maximum bomber effort is to be exerted by day and night in support of the land battle in this area (Cambrai - Arras - Peronne). Heavy bombers are not repeat not to be used by day. Day sorties are to be provided with fighter protection. Bombing plans to be concerted with C.-in-C. B.A.F.F. and latest information to be obtained from North B.A.F.F. before despatching day sorties. Arrangements for fighter cover to be concerted with C.-in-C. Fighter Command".

The great debate on bombing policy within the Air Staff, and the conclusions reached, were thus negated by circumstances. So far from the entire weight of the heavies being put on to German oil, a greater effort than ever was now devoted to attacking the communications of the German army. And a proportion of the medium bombers continued to operate by day, necessitating henceforth that close escort which the Air Staff had always regarded as a wasteful misuse of fighter strength.

FIGHTER OPERATIONS: (a) Fighter Command

The same six Hurricane squadrons again left to operate over France, three in the morning and three in the afternoon. It is not clear whether all of them used R.A.F. Component bases, but those in the morning certainly did. In addition to this protective patrols were again supplied by two Spitfire squadrons over Ostend in the afternoon and evening, and by night single aircraft of a Blenheim squadron maintained patrols over Dunkirk, Merville and St. Omer.

FIGHTER OPERATIONS: (b) R.A.F. Component

Two main lines of patrol were covered during the day by the RAF Component and Fighter Command Hurricanes. The first was the B.E.F. front (Audenarde - Tournai): the second, the threatened ground to the right of the B.E.F. main lines of communication - i.e. over the area Arras - Douai - Valenciennes - Le Cateau - Cambrai. The details have survived very imperfectly, but it appears that the squadrons patrolling over the latter area were in combat far more frequently than those over the B.E.F. front line. Only one major combat is recorded on the B.E.F. front proper - with 24 Do.215s over Tournai at about 1500 hours. Combats over the Petreforce and 1st Army area, however, were numerous - notably round about midday (with Do.215s and Me.109s over Valenciennes, Do.215s, Me.109s and Me.110s over the Forêt de Mormal, and with Ju.88s near Douai): at about 1500 hours (with some 60 He.111s, 30 Me.110s, and various Dorniers, Ju.88s and Me.109s near Arras and Cambrai): again at 1630-1700 hours (with Do.215s and Me.109s near Cambrai): and finally at 1940 hours (with He.111s and 15 Me.109s near Cambrai). These encounters could restrict, but could naturally not prohibit enemy bombing on a large scale against Cambrai, Arras and the neighbouring towns.

In addition to these main patrols, forty per cent of available aircraft **now** had to be kept for aerodrome and rear area defence. These aircraft took off repeatedly during the day on warning of approaching enemy forces, and were several times engaged with Me.109s and He.111s. In spite of this, Lille-Seclin was bombed (though not badly) in the morning. Much more damage was done to the aerodrome and dispersed aircraft at Amiens, which was beyond the zone covered by the main offensive patrols.

Statistics of the day's fighting cannot be computed accurately, but an indication of its intensity may be gathered from the fact that one squadron alone (No.85) claimed to have shot down fifteen of the enemy during offensive and defensive patrols.

A.H.B.
IIH2/585A
A.384
0031 hours
19/5/40

The general arrangement of the Hurricane patrols was criticised by Air Ministry in a signal despatched during the night 18/19th May to B.A.F.F. and repeated to R.A.F. Component, A.A.S.F. and Fighter Command. "It has been reported that fighter patrols are carried out at the same routine times in the same strength day after day. The enemy know this and have superior forces waiting so that we engage heavy odds. Suggest patrols be carried out at irregular times and at strength varying between one section and two or three squadrons. Also reported that Hurricanes escorting army co-operation aircraft are ordered to patrol at 4,000 feet, where they are subjected not only to heavy and accurate A.A. fire but also to attack from enemy fighters which wait above them. Such patrols are uneconomical and result in avoidable loss of fighters....." In the absence of precise details of time and strength of patrols it is impossible to assess the fairness of this criticism: but certainly patrols at dawn and in the late evening were very common. There was, however, every justification for these, for such times were favourite periods of enemy activity, and R.A.F. Component can hardly be blamed for putting fighters up when they were most likely to be of use.

During most of the day R.A.F. Component Headquarters, which was moving, was out of touch with No.14 Group, whose Commanding Officer (Group Capt. Fullard) appears to have made certain arrangements with Air Ministry on his own responsibility. These were for the evacuation of the Lille aerodromes by the Hurricanes, the return of what remained of the reinforcing eight half-squadrons to England (on account of lack of servicing equipment and personnel), and the cessation of the practice of Fighter Command squadrons refuelling at R.A.F. Component aerodromes. In his letter to R.A.F. Component Headquarters explaining the arrangements, O.C. No.14 Group concluded: "I venture to say that this group, in spite of the constant pressure of enemy fighter aircraft over its aerodromes and frequent bombing attacks, is still extremely offensive, and will be even better tomorrow with shortened lines of communication and concentration of command on two aerodromes..... But if the scale of enemy attack increases

MAY 19TH

our whole fighter effort will be expended on our own defence, and we shall have nothing to give the B.E.F. in the forward areas, which is, of course, why we exist....."

FIGHTER OPERATIONS: (c) A.A.S.F.

The main activity of the A.A.S.F. fighters, apart from local defence, was the cover given to the bombing operations north of the Aisne in the morning. All available fighters were sent on this, to the number of about twenty-six. Both No.1 and No.73 Squadrons encountered and engaged enemy bombers and fighters on the way to the patrol area, and between them claimed seven bombers and one Me.110, as well as three "probables", for the loss of three or four Hurricanes. No. 501 Squadron, however, mentions orders to engage enemy fighters only, and does not appear to have been involved in these combats.

RETIREMENT OF THE R.A.F. COMPONENT.

Rear Headquarters of R.A.F. Component reached Boulogne during the morning, while Battle Headquarters left Arras for Hazebrouck, where it joined up with Advanced G.H.Q. during the afternoon. By 2050 hours, owing to the difficulty of communications between B.A.F.F. and R.A.F. Component, the latter was taken under the general control of Air Ministry.

The advisability of operating R.A.F. Component largely from England was discussed in the morning with G.H.Q., and as a result orders were given in the evening to the strategical reconnaissance wings (Nos.52 and 70) and three of the Lysander Squadrons to return to the United Kingdom. A.O.C. R.A.F. Component had also discussed the situation with D.C.A.S., but the signal giving the provisional allocation of aerodromes in England 'in the event of evacuation becoming necessary', though despatched from Air Ministry at 1055 hours, was not received by R.A.F. Component Headquarters until 2108 hours. By this time the Blenheims and the Lysander Squadrons (Nos. 2, 16 and 26) had all been ordered to Lympne, in the first instance. Most of them took off that evening, and the remainder the following morning. The M.T. convoys were directed to proceed to the United Kingdom via Cherbourg, though what proportion reached the port and was loaded for England is a matter of conjecture. Other ground personnel embarked from Boulogne during the following days.

The effect of these orders was to leave of the R.A.F. Component forces only the Lysanders of I and II Corps and the Hurricanes of No.14 Group operational in France. Of the Lysanders, the I Corps Squadron (No.13) retired during the day (it is not clear by whose orders) to Abbeville: the II Corps Squadron (No.4) remained at Lille-Ronchin. The Hurricanes of No.14 Group were now reduced in strength by the despatch home of what remained of the eight reinforcing half-squadrons which had been sent out on May 16th. These left on May 19th and May 20th, but in

MAY 19TH

most cases only two or three aircraft appear to have rejoined their parent squadrons. Orders were also given that the six Fighter Command squadrons should no longer refuel in France, but should operate directly from England. At the same time, No.14 Group units were withdrawn from their most advanced aerodromes - those at Lille- and all Hurricane Wings and their squadrons were concentrated, by the following morning (May 20th) on two aerodromes - Merville and Norrent Fontes. These moves, though concentrating the squadrons, divorced them from their normal sources of operational information, for the filter-room at Arras was evacuated by the early morning of May 19th, and the Group Operations Room at Achicourt by 1300 hours. A section of No.14 Group was ordered to Lille to endeavour to control operations on information supplied by No.2 Air Raid Reporting Liaison Section: other personnel of the Group Headquarters proceeded to Boulogne.

The possibility that Dunkirk might have to be used as a main port of supply -or of evacuation - was presumably responsible for another move ordered on May 19th - that of No.924 (Balloon Barrage) Squadron, from Le Havre to Dunkirk. Such was the state of communications, however, that the order, transmitted in the evening of May 19th, was not received until the early hours of May 21st, by which time the move could not have been executed - at any rate by land.

The above comprises the bare framework of the R.A.F. Component moves ordered on May 19th. The surviving records are too scanty to provide a more detailed account of the day's proceedings.

MAY 20THMILITARY SUMMARY

On the northern front the line held was that of the previous day (Terneuzen - Ghent - Escaut to Denain): to the south the French continued to reinforce the Somme - Aisne positions. Between these two extremes lay the area which was now the centre of military interest, bounded by the towns of Denain - Arras - Doullens - Amiens - Peronne. In this area the main events of the day were the capture of Cambrai (apparently at a very early hour in the morning), the outflanking of Bapaume and Arras (which was successfully defended by the British), and the advance on Amiens, which fell in the early hours of May 21st.

'Closing the gap': The allied forces north of the German penetration were, with the enemy advance towards the coast, becoming increasingly cut off from any contact with those to the south, and by May 21st the severance was complete. The situation obviously demanded allied action to 'close the gap', either by the northern armies fighting their way south, or by the southern armies fighting their way north, or by both simultaneously. There was no dispute that this was the correct course in theory: opinions differed, however, on how far it could be effected in practice. It appears that those furthest from the scene of the battle were the most optimistically inclined, for an order had arrived from London for Lord Gort that he should fight his way southwards to Amiens. The bearer of this instruction was the C.I.G.S. (General Ironside): and one who accompanied him to France (D. of Plans, Air Ministry) has left a lively record of the circumstances in which the order was issued:

Document
No. 32.
20.5.40.

"The meeting of the Cabinet was held in the upper War Room at the Admiralty at 7.30 that evening, the Prime Minister, Secretary of State for War, Secretary of State for Air, First Lord and Chiefs of Staff and myself being present. After considerable discussion, the Prime Minister dictated the following order, which was taken down in longhand by Group Captain Elliott and handed to the C.I.G.S.

1. The Cabinet decided that the C.I.G.S., was to direct C.-in-C., B.E.F., to move southwards upon Amiens attacking all enemy forces encountered and to take station on left of French Army.
2. C.I.G.S., will inform General Billotte and the Belgian Command, making it clear to the Belgians that their best chance is to move south between the B.E.F. and the coast.
3. The War Office, will inform General Georges in this sense.'

There was an astonishing scene. Everybody in the room recognised that, in point of fact, this order was not one which could possibly be carried out - and in any event that it was, to say the least of it, 'dangerous for the War Cabinet (or rather the Prime Minister) to try

MAY 20TH

and command the B.E.F., from London in ignorance of the real situation and regardless of the fact that the B.E.F., was under the orders of the French. There was, however, nothing but a few feeble protests, and General Ironside made no attempt to stand up to the Prime Minister and explain that he could not possibly go with a firm order of this sort."

Naturally the order was not well received at G.H.Q. Lord Gort put to the C.I.G.S. his view (in the restrained language of a printed despatch) "that withdrawal to the south-westwards, however desirable in principle, was not in the circumstances practicable", while General Pownall was reported to be "really angry" when the plan was explained. Ultimately Lord Gort agreed to do what little he could in this direction - to counter-attack to the south of Arras with two divisions on May 21st - but made it clear that a general fighting withdrawal to the south-west was "entirely impossible until the situation had been retrieved on the front of the French First Army".

The northern front: Shortly before midnight on May 20th the allied line in the north was described, from information gathered by Colonel Hopkinson's patrols, as follows:- The Belgians and the B.E.F. as before, along the Terneuzen - Ghent Canal and the Escaut to Tournai: the French thence along the Escaut through Condé, Valenciennes and Denain to Bouchain. Just south of this point the line now left the Escaut to follow the Canal de la Sensée westwards to Arleux, thereby facing south against the enemy. From Arleux it continued westwards (south of Douai) to join and follow the Scarpe to Arras. Behind the Canal de la Sensée - Scarpe line Macforce was manning a second position from the Escaut at Chateau L'Abbaye across to Douai. Broadly speaking, this picture seems to have been accurate, but the description given of the forces south of the Scarpe appears to have been out of date, for French and British elements were stated to be in a north-south line along the Canal du Nord, while west of this Petroforce was reported as holding the Arras - Doullens - Amiens road as far south as Talmas. In fact during the day the German penetration in the direction of Hesdin drove across both of these positions.

RECONNAISSANCE

The R.A.F. Component Blenheims (save for two aircraft detailed for B.A.F.F. Headquarters) and three of the Kysander squadrons had now left for England, and only the Lysanders with I and II Corps remained. Of these, No.4 Squadron (II Corps) has recorded that it carried out sorties throughout the day, but has left no details of time or place. One echelon of the squadron moved to St. Omer (Clairmarais) during the day, but 'B' Flight remained forward at Lille-Ronchin. No.13 Squadron (I Corps) sent an aircraft from Abbeville to Lille to receive Corps orders for reconnaissance, but these were later cancelled. The squadron was then ordered to return to England, one flight reporting at Boulogne en route to carry out a sortie for G.H.Q. An aircraft from this flight appears to have dropped situation messages over Corps H.Q.

MAY 20th

R.A.F. Component Operational Summary, 20/5/40

In the absence of other aircraft, tactical reconnaissance sorties on the flank of the B.E.F. were carried out in the morning by five R.A.F. Component Hurricanes. At 0830 they reported a continuous column of enemy mechanised transport on the Cambrai - Arras road, with the head halted at Marquion, where the Canal du Nord had to be crossed. Another column was approaching the Canal at Sains, a mile or two south of Marquion, and was being joined by large vehicles which had turned about from the first column. Extensive fires were reported in Le Cateau, Cambrai, Douai and Arras. Two further reconnaissance sorties were arranged for the evening, but could not be carried out owing to shortage of available aircraft.

20/5/40
Operations
by R.A.F.
Component
Squadrons
(G/Capt.
Vachell's
Report)

The return of the reconnaissance aircraft from France naturally involved setting up an organisation to operate them from England. At 0930 hours Group Captain Fraser (D.M.C., Air Ministry) was ordered to organise a rear headquarters of the R.A.F. Component at Hawkinge, which was to control the operations of the returned units. Group Captain Fraser arrived at Hawkinge with a small R.A.F. and Army staff during the afternoon, and formed his headquarters in the station operations room. Maintenance parties were despatched by No. 22 Group to Lympne and Croydon to service the returning aircraft, and during the afternoon it was possible to despatch four Lysander sorties over France. One of these reported that round about 1400 hours enemy tanks were moving westwards across the Doullens - Amiens road. Another was sent at 1630 hours to reconnoitre Abbeville, Lille and Bethune aerodromes to discover news of Nos. 4 and 13 Squadrons, whose whereabouts were apparently at this time unknown in England.

BOMBING OPERATIONS: (a) Near Arras.

It had been decided on May 19th that no further attacks should, for the time being, be launched by the medium bombers in daylight. The critical situation of May 20th, however, caused a rapid suspension of this decision. The approach of German columns beyond Cambrai towards Arras, reported in the early morning, threatened the whole of the rear of the B.E.F. position, and made it certain that were the threat unchecked, the B.E.F. would soon be encompassed on three sides by the enemy. D. of Plans (Air Commodore Slessor) was that morning at G.H.Q., whither he had proceeded for a conference with Air Vice-Marshal Blount about the withdrawal of R.A.F. Component, and his reaction to the situation may be described in his own words: "The news from Arras became more and more menacing, and all available bombers in the Component* were told off to go and try and delay the tank columns converging on Arras. We were out of touch with Barratt and the A.A.S.F. But, in spite of my dislike of chucking away bombers on this sort of target, I felt the situation was so critical that I sent a signal to C.A.S. urging that he should turn on bombers from England. Conversation with the Q.M.G. convinced me that if we could not stop this drive, the B.E.F. would very soon be cut off from its rations and ammunition, and it seemed that the most desperate measures were not only justified but essential to stop this".

Document
No. 32
20/5/40

* There seem to have been no available bombers in the R.A.F. Component, as the Blenheims had been ordered home the previous evening.

MAY 20th

In point of fact, news of the advance of the enemy up the Cambrai - Arras road had already been reported to Air Ministry, and by 0830 D.H.O. (Air Commodore Stevenson) had arranged an attack by two squadrons of No.2 Group, under close fighter escort of three Fighter Command Hurricane squadrons. The first Blenheim squadron (No.107) was over the target area by 1130 hours, and delivered a level attack from 6,500 feet on closely spaced vehicles. The second squadron (No.21), arriving half an hour later, saw no enemy columns save for a few troops (which they attacked) in the village of Vis, seven miles outside Arras. A feature of the operation was that no enemy fighters were encountered, either by the Blenheims or by their escort, and that very little fire from the ground was encountered. None of the bombers, in consequence, was lost.

North
B.A.F.F.
Telephone
Log
20/5/40

The operation at 1130-1200 hours was not the only effort made during the day to hold up the columns approaching Arras from the direction of Cambrai. At 1200 hours a message was received at B.A.F.F. Headquarters from General Georges to the effect that violent fighting was taking place near the eastern exits of Arras, and that the General, after consultation with General Dill, requested the maximum bomber effort immediately against enemy columns in this area. An additional message, a few minutes later, requested that the effort should be made continuously day and night, as near as possible to a bombing-line which would be given later. Discussion of these requests at B.A.F.F. Headquarters and between B.A.F.F. and Air Ministry made it clear that General Dill did not expect the heavy bombers to be used by day, and that in any case to attack these columns by day without strong fighter cover would be folly. At 1240 a renewed request was received from General Georges that all bomber forces should be put on to the triangle Cambrai - Arras - Peronne. A policy was then agreed between B.A.F.F. and Air Ministry, as recorded above * that the maximum Blenheim effort should be exerted by day so long as cover could be provided, and that the maximum Bomber Command effort should be put, by night, on to targets as far forward as possible.

In consequence of these moves, and of news reported from a French reconnaissance sortie at about 1400 hours, an attack was now ordered against columns approaching Arras from Bapaume. No.21 Squadron was again employed, this time arriving first over the general target area - Albert - Arras - Cambrai - at 1835 hours. An attack was made on a column on the Albert - Arras road, but the best target was discovered, and attacked, rather west of the given area, on the Albert - Doullens road. No.107 Squadron, arriving ten minutes later, found only small enemy concentrations, and an attack was delivered against a village on the Bapaume - Arras road, to create a block. It is possible that No.107 Squadron did not search to the west of the given target area. Hurricanes again provided an escort: opposition was light: and no Blenheims were lost from either squadron.

BOMBING OPERATIONS: (b) By night. German communications in France and Belgium.

It had now been agreed that, in view of the critical situation, the maximum effort should be exerted by night against German communications as near as possible to the front line, and the oil plan in consequence was for the moment in abeyance. The area of attack was, by arrangement with the French (who promised to take on the Cambrai - St. Quentin - Bapaume - Arras district themselves) moved further east than that of General Georges' original request,

MAY 20th

No.3 Air
Mission
Signal
A.13
20/5/40

North
B.A.F.F.
Telephone
Log
1600 hours
20/5/40

and might be described roughly as the area bounded by Cambrai - Hirson - Vervins and St. Quentin. It thus comprised many of the German approaches to and crossings over the Sambre and Oise. The A.O.C.-in-C., Bomber Command, however, considered that no more than 86 aircraft could be successfully operated over this area by night, and an additional area was therefore included. This was in advance of the main B.E.F. front, a particular target being columns approaching the junction of the Belgians and the B.E.F. A request for air action against this had been made by Belgian G.Q.G. through No.3 Air Mission, and the decision to devote a proportion of the effort to this area was fully supported by General Dill, who happened to call on Air Marshal Barratt when the night's targets were being selected.

As a result of the arrangements with the French twenty Whitleys and eighteen Hampdens were directed against bridges over the Oise and Sambre, with troop concentrations in the agreed area as a general alternative target. Of these sorties, thirty aircraft claimed to have located and attacked their bridge. Claims of direct hits, however, were few, one burst each being reported on the targets at Catillon, Mont d'Origny and Ribemont. About six sorties in all were entirely abortive. In addition thirty-two Wellingtons were sent to make continuous harassing attacks against troop movement within the general area Cambrai - Hirson - Vervins - St. Quentin. A large variety of scattered targets was attacked - roads, railways, trains, mechanised transport, anti-aircraft batteries - and considerable success was reported. No.38 Squadron, however, complained of the inadequacy of their target maps, which were on the 1 - 500,000 scale.

The other area for attack by Bomber Command, that in front of the B.E.F., was taken on by eighteen Blenheims, which were given columns on the road Grammont - Audenarde as their primary objective, with an alternative of any columns found in the area Audenarde - Ninove - Brussels - Hal - Enghien - Ath. Each aircraft operated separately over the area: three sorties were entirely ineffective, two found vehicles to attack, and the rest dropped their bombs against roads and railways. Visibility was apparently limited at first to one mile, in spite of the nearly full moon, but the later sorties reported much better conditions.

German lines of communication across the Meuse were attacked on this night, not, as before, by Bomber Command, but by the A.A.S.F. Battles, which it had been decided should now assume primarily a night rôle. Sustained attack throughout the night was suggested, but was difficult to arrange on account of limited D/F facilities. The time table was therefore arranged so that many of the aircraft could arrive back at first light. Forty-nine aircraft were intended to participate in the operation, but a few were prevented from taking off by an accident at Faux-Villecerf, where a flare, igniting in a Battle, caused an explosion which damaged other machines. Thirty-eight aircraft did in fact take off, and bombed communications at Givet, Dinant, Fumay, Monthermé, Mézières and Charleville. Many of the towns were difficult to find on account of the prevalent mist over the Meuse ravine: most results were not observed: and five aircraft failed to drop their full bomb-load. Intense searchlight activity was experienced over the whole area.

MAY 20th

The night's work was again achieved at very little cost. From a total of 130 Bomber Command and A.A.S.F. sorties, two Wellingtons, two Whitleys and one Battle failed to return.

BOMBING OPERATIONS: (c) Oil storage tanks at Rotterdam.

Operating under Coastal Command, five of six Beauforts despatched attacked petroleum and oil storage tanks at Rotterdam, in an effort to deny these to the enemy. Many hits were claimed, fires were started, and the operation, which was carried out without loss, appears to have been attended by great success.

FIGHTER OPERATIONS: (a) Fighter Command.

A patrol over the Belgian coast was again carried out by one of the Spitfire squadrons (No.54). No other operations were undertaken, save the close escort by three squadrons to the morning and evening Blenheim attacks in the Arras area. One Hurricane was lost during the morning escort - apparently after a combat with a single Hs.126.

FIGHTER OPERATIONS: (b) R.A.F. Component.

R.A.F. Component Hurricanes during May 20th carried out offensive patrols over the B.E.F. front (Audenarde-Tournai) and over the Douai - Lens - Arras area, where large formations of enemy fighters were encountered. A new development of the day was the use of some of the Hurricanes for ground-strafting. The critical nature of the situation developing before Arras necessitated this, and between 1100 and 1615 hours several attacks were delivered against enemy troops on the Cambrai - Arras road. Aircraft from all squadrons seem to have been engaged on this task, from which considerable success, in the form of burning lorries and general confusion, was reported.

In the evening, in accordance with orders received by No.14 Group from R.A.F. Component Headquarters, the Hurricanes took off for England.

FIGHTER OPERATIONS: (c) A.A.S.F.

Apart from patrols for local defence, the main incident of the day arose from a cover patrol flown by No.1 Squadron for a French reconnaissance north of Rethel. Returning from this, No.1 Squadron encountered fourteen He.111s. of which it claimed to have shot down six, with two more probables. Three of the Hurricanes were compelled to make forced landings.

RETIREMENT OF THE R.A.F. COMPONENT. (May 20th - 26th)

It will be convenient at this stage to finish retailing the complicated moves of the R.A.F. Component.

By the evening of May 20th R.A.F. Component Advanced Headquarters had moved to a less conspicuous building in the outskirts of Hazebrouck, to avoid enemy air action. Rear Headquarters at Boulogne had been hit during the night 19th/20th, and moved in consequence outside the port, to Wimereux. Officers and men from many units had been flowing into Boulogne all night long and on May 20th the first boat-loads were got away, comprising personnel of the reconnaissance wings and squadrons, R.A.F. Station Amiens - Glisy, and No.5 Signals Wing.

MAY 20th

Other personnel were embarked and sailed during the following two days. No. 912 (Balloon) Squadron, which provided the barrage for Boulogne, cut its balloons adrift on the evening of May 22nd, and moved during the night to Calais, whence it proceeded to England on May 23rd. Some of the balloons raced the squadron personnel, since they drifted across the Channel and had to be shot down by aircraft from Hawkinge.

On the evening of May 20th No. 14 Group aircraft were ordered to England, and departed, leaving ground personnel to proceed to Boulogne and transport to Rouen and Cherbourg. No. 13 (Lysander) Squadron was also ordered to England, though one flight was to stay at St. Omer (Clairmarais) en route, to carry out sorties for G.H.Q. Thus, by May 21st, of the R.A.F. Component forces in France only one Lysander squadron remained - No. 4 - and this was ordered by R.A.F. Component H.Q. during the morning to evacuate, less eight aircraft and a skeleton operations and maintenance staff. The main party withdrew from Lille-Ronchin on May 21st to Clairmarais, whence the ground personnel proceeded to Dunkirk (reaching Dover on May 22nd) and two flights of the squadron aircraft flew to Hawkinge (early a.m. May 22nd). The remaining flight withdrew from Lille-Ronchin to Clairmarais on May 23rd, and to England (via Dunkirk) on May 24th - the last flight of an R.A.F. Component operational unit to leave France.

The remaining story of R.A.F. Component Headquarters may be briefly told. Personnel of Advanced Headquarters began to move at 1730 hours on May 21st, from the outskirts of Hazebrouck to Dunkirk, where they experienced enemy raids during the night. The remainder, with various isolated parties which had collected at Hazebrouck, followed on May 22nd, on news of enemy tanks approaching Hazebrouck. Both parties sailed from Dunkirk and reached Dover on May 22nd, while the A.O.C. on the same day flew himself back to England from St. Omer in a Moth. This left only the S.A.S.O. (G/Capt. Goddard) and a very small staff, who proceeded to G.H.Q. Battle Headquarters at Premesques, near Lille. Some of these left for England on May 24th: the S.A.S.O. and one or two others remained with Lord Gort until total evacuation was decided ~~upon on May 26th.~~ *and departed on 29th May.*

Rear Headquarters, R.A.F. Component, remained at Wimereux until May 23rd, when the last parties left Boulogne for England. The A.O.A., R.A.F. Component (Air Commodore Cole-Hamilton), who was in charge of the Rear Headquarters, now left by air, with a small staff, for Rouen-Boos, to take up the command of the new formation known as "South Component". The first steps to create this organisation for refuelling fighters and operating reconnaissance in the Lower Seine area had been taken by Air Ministry on May 19th, when the evacuation of the main R.A.F. Component forces began. Some account of its creation is given later. *

* See below, page 358-359

MAY 20th

The evacuation of the R.A.F. Component entailed the loss of a vast quantity of equipment. Transport was directed towards Cherbourg, but that which left Boulogne later than the early hours of May 20th got no further than Abbeville. From what fragmentary accounts survive, one learns not so much of equipment destroyed, as of equipment abandoned, either at stations or at the ports. From the operational viewpoint this was a serious loss, but from the historical viewpoint what mattered more was the destruction of practically all records of the formation. Many unit records were burnt before moving. Others, including those of Headquarters, were stacked ready for loading on the leave quay at Boulogne, but were then dumped into the harbour, presumably from an absence of shipping, time or forethought.

MAY 21st.

MILITARY SUMMARY

The Severance completed: On this day the Germans reached the Channel coast, and the severance of the allied armies of the north from those to the south of the Somme and Aisne was completed.

Reports of the fall of Amiens came in early - by about 0230 hours - and the enemy was then said to have crossed the Somme and to be advancing on both banks west of the river to Abbeville. From Abbeville reconnaissance elements seem to have moved west along the coast towards Le Tréport, but the main direction of attack continued north of the Somme towards Montreuil. In the afternoon an enemy column was reported a few miles south of Boulogne.

The southern flank of the Northern armies: This advance through the gap was accompanied by very severe pressure on the southern flank of the allies about Arras. In spite of this the town continued to be held by the allies. In an effort to relieve the situation a southward attack to gain bridgeheads over the Scarpe east of Arras was launched by "Frankforce",* in accordance with Lord Gort's decision of the previous day. The 1^{iere} Division Légère Mécanique co-operated, and objectives for the day were gained, but in the absence of further French help the chances of advancing on any large scale south and south-east of Arras were remote.

Gort:
Despatch
Para.35

The main Belgian and B.E.F. front: The pressure on the main B.E.F. front was now becoming greater, and during the day III Corps positions on the Escaut were dented at Petegem, south of Audenarde. The low level of the Escaut was an additional danger, and in the evening Corps Commanders, at a conference with Lord Gort, expressed the view that their positions were not likely to be tenable for more than another twenty-four hours. Arrangements were therefore made by which the Belgians and the B.E.F. would retire from the Escaut during the night May 22nd/23rd.

RECONNAISSANCE.

Of the R.A.F. Component forces only No.4 Squadron Lysanders, with a flight of No.13 Squadron, were now left in France. During the day sorties were flown from Lille-Ronchin, including one to verify reports of bridging over the Escaut on II Corps front. No signs of bridging were observed. In addition, eight sorties were flown from St. Omer (Clairmarais) in the area south of the B.E.F. to search for enemy columns. Two pilots were able to report a large armoured force in a wood north of Hesdin. Three aircraft of No.4 Squadron and two of No.13 Squadron were shot down during the day.

Further measures were taken during May 21st to build up the new reconnaissance organisation ("Back Component") in England, including steps to rectify the poor serviceability of aircraft returned from France. From the account left by Group Captain Vachell, who took over command at Hawkinge from Group Captain Fraser during the afternoon, it would appear that three Lysander sorties were flown in the morning

* Commanded by Major General Franklyn, and comprising 5th and 50th Divisions (each of two brigades), 1st Armoured Tank Brigade, Petreforce and various units under O.C. 12th Lancers.

May 21st

in the St. Pol - Doullens - Amiens - Abbeville area. One of these failed to return, and the others observed little on account of low cloud. Owing to the bad weather only one sortie was made during the afternoon, but in the evening three more were despatched. Two of these endeavoured, in accordance with a War Office request, to reconnoitre the area Douai - Arras - Doullens - Amiens, but they were both engaged by enemy aircraft and unable to obtain information. One of them (from No. 16 Squadron) returning with most of the rudder shot away, claimed to have shot down two M.E. 109s.

In addition to the Lysander sorties made under direct orders from Back Component, other reconnaissances were carried out by Blenheims. The returned Blenheims of R.A.F. Component had been placed temporarily under the operational control of Bomber Command,* and during the day two reconnaissances were carried out by these aircraft. The first, in the early morning, saw nothing on account of low cloud, the second failed to return. Two sorties were also flown by No. 40 Squadron over the Arras - Cambrai - Albert - Amiens area, taking off at about 0730 hours: of these the first failed to accomplish its mission, the second reported infantry advancing in open order over fields north of the Arras - Cambrai road, and a column of twelve large tanks moving towards Hazebrouck from Merville.

BOMBING OPERATIONS (a) Near Hesdin and Montreuil

North
B.A.F.F.
Telephone
Log 1537,
2245 and
2330
hours
21/5/40

During the day the A.A.S.F. did not operate, and targets for the Blenheims of No. 2 Group were selected by the Air Ministry in conjunction with the War Office, apparently without reference to B.A.F.F. This occasioned some protest on the part of Air Marshal Barratt, who complained that his more up-to-date knowledge of the battle front picture was not being utilised, and that in consequence there was a grave danger of French troops being bombed by mistake.

The first attack of the day was delivered at about 0945 hours by twelve Blenheims against a column reported as approaching Abbeville from Frévent. Roads west of the target area were observed to be crowded with transport of all types, and it proved impossible to distinguish friend from foe. Intense anti-aircraft fire was encountered from Auxi-le-Chateau, which was therefore bombed. Operating under fighter escort two squadrons strong the Blenheims suffered no losses, but six returned holed from anti-aircraft fire.

Soon after midday a second attack was made, the target being enemy columns reported moving north-west from Frévent to Hesdin, and thus apparently heading for Montreuil and Boulogne. These had been reported to G.H.Q. at 0730 hours by an officer who had seen them pass as he lay wounded in a ditch. Nine Blenheims, under Hurricane escort, found and attacked columns near Hesdin and Montreuil but the presence of enemy fighters prevented observation of results. One Blenheim was lost. Difficulties of identification were again stressed, particularly in the crowded area between Etaples and Boulogne.

At about 1800 hours a third attack was made in the same general area, twenty-four Blenheims under Hurricane escort seeking out a column reported some fifteen miles south of

May 21st

Boulogne. There was apparently little difficulty in finding the column, but five aircraft refrained from dropping their bombs on account of the number of refugees on the road. Most of the remainder attacked tanks and lorries on side roads between Hesdin and Montreuil. All aircraft returned safely.

The last daylight attack, in the same area, was delivered at about 2030 hours by twelve Blenheims. Convoys were found and successfully attacked north of Etaples and round about Samer (8 miles south-west of Boulogne). Unfortunately some Spitfires of No. 610 Squadron, patrolling the Calais - Boulogne area, attacked the Blenheims in mistake for enemy bombers, and shot one down.

The daylight bombing operations were thus again carried out at very little cost, fifty-eight sorties being flown for the loss of two Blenheims, one of which was at our own hands. The shorter distance to be covered in these operations, the provision of powerful escort, and the increasing dispersion of the German columns were doubtless the main factors responsible for the striking decline in losses.

BOMBING OPERATIONS (b) By night. Communications in France and Germany.

Document
No. 16
21/5/40

Discussion of bombardment targets for the night was carried out during the day between the French, B.A.F.F. and Air Ministry. A communication from General Georges to Air Marshal Barratt referred gratefully to the operations of the previous night, which had been largely directed against the near communications of the German armies, and asked for this task to be maintained. In addition, however, General Georges gave warning that attack on distant centres of communication might be required, 'en raison de l'imprécision qui rogne habituellement en fin de journée sur le tracé très mouvant du front ennemi'. In subsequent discussion between B.A.F.F. and Air Ministry, it was agreed that one-third of the night's effort should be put upon immediate targets, and two-thirds upon the distant communications.

In the event, no portion of the night's effort was exerted against objectives very close to the scene of fighting, and the attacks of the previous night against the Sambre - Oise crossings were not repeated. Communications across the Meuse, however, were scheduled for attack both by the A.A.S.F. and by Bomber Command. Forty-one Battles were ordered to disturb enemy communications through Givet, Fumay and Mézières, in the Upper Meuse area, but after about a dozen of them had taken off the operation was cancelled, in favour of a possible attack against tanks in the Amiens - Arras - Abbeville area the following morning.* Those aircraft which did operate attacked railways and a bridge: they observed no movement and experienced no opposition.

Bomber Command aircraft operated in part against the Upper Meuse communications, in part against the great railway

* The cancellation took place as a result of Air Ministry instructions, G.H.Q. having specially requested the task for the following morning. Air Marshal Barratt protested against its unsuitability.

May 21st

network in Germany west of the Rhine. In the former category, twenty-nine Wellingtons were despatched against crossings at Namur and Dinant; all reached and bombed in the target area except two, and several claims were made of hits against permanent and temporary bridges. No railway traffic was observed on the Namur - Liège line.

The attacks on railway objectives in Western Germany were delivered in part against the junctions and marshalling yards, in part against certain stretches of line with the object of derailing trains. Eighteen Wellingtons and fifty-four Whitleys were briefed to attack the railway centres at Aachen, Euskirchen, Jülich and Rheydt. About eleven of these sorties, (nearly all Whitleys) appear to have been ineffective, and of the remainder thirty-three claimed to have identified and attacked their primary target. Attacks to derail trains were scheduled for the lines Aachen - Düren, Aachen - München - Gladbach - Krefeld, Düren - Neuss, and Düren - Cologne, twenty-four Hampdens operating. The aircraft claimed to have inflicted damage at various points along the tracks, including hits on five stationary trains, three of which were on the line between Aachen and München - Gladbach.

The night's work represented by far the largest assault thus far made on railways in Germany. From the operations against these and the nearer communications, comprising twelve sorties by the A.A.S.F. and one hundred and twenty-five by Bomber Command, six aircraft of Bomber Command failed to return.

FIGHTER OPERATIONS (a) Fighter Command

During the day escorts were provided for the first three Blenheim operations. These were uneventful, and no Hurricanes were lost in the process. Offensive sweeps were also carried out fairly uneventfully over the areas Cambrai - Lens - Arras - Boulogne and Boulogne - Amiens. The severest fighting of the day occurred over Dunkirk and Calais. Three shipping protection patrols and four X-raid interception patrols were flown by Spitfires over this area, in the course of which formations of enemy bombers (unescorted until the evening) were encountered at about 0845, 1357, and 1945 hours. Claims amounted to one confirmed destruction, and seven more unconfirmed, against the loss of one Spitfire. In all, fourteen patrols involving one hundred and forty-two aircraft were flown over the continent during the day. At night, Blenheim fighters patrolled singly over Boulogne.

FIGHTER OPERATIONS (b) A.A.S.F.

The departure of the R.A.F. Component fighters left only three Hurricane squadrons in France, those with the A.A.S.F. These flew local protection patrols during the day, together with patrols in the afternoon, at the request of General d'Astier, along the Aisne from Neufchatel to Vailly. The A.A.S.F. had evidently understood that the Sixth Army was staging an attack northwards in this area, for when the patrols reported no ground activity and no enemy aircraft, A.A.S.F. complained to B.A.F.F. that the Hurricanes were being used defensively over a defensive army, and therefore in contradiction to their general directive.

North
B.A.F.F.
Telephone
Log 2200
hours
21/5/40

May 21st

During the day General d'Astier requested permission to arrange fighter co-operation direct with A.A.S.F.: this was refused by B.A.F.F., in general because of the need for maintaining centralised control, and more particularly since
ibid 0904 hours communications between A.A.S.F. and B.A.F.F. were proclaimed to be good.

MILITARY SUMMARY

The Northern Armies: During the day the Germans pressed advanced armoured columns northwards from Montreuil and Hesdin. A breathing-spell was given to Boulogne by the landing of two battalions of Guards, but by the end of the day the town was isolated, and an enemy force was within nine miles of Calais. Round Arras the battle raged with undiminished violence as the enemy attacked northwards, but "Frankforce" held the ground captured the previous day.

On the main B.E.F. front severe pressure continued, and during the night May 22nd/23rd a withdrawal was made from the Escaut, in accordance with the decision taken the previous day, to the Franco-Belgian frontier defences between Maulde and Halluin. In conformity, the Belgians, to the left of the B.E.F., withdrew to the line of the Lys from Halluin to Ghent, whence their line continued as before along the canal to the sea at Terneuzen. The new positions, however, left the Belgians jutting forward dangerously, practically at a right angle to the B.E.F. line, and their retirement to the Yser was envisaged in the event of a further withdrawal.

The Somme-Aisne front: The southern flank of the German penetration witnessed increasing reinforcement by the enemy infantry, who had now reached Peronne.

RECONNAISSANCE

The British reconnaissance sources based in France were reduced still further during the day, since the last flight of No.13 Squadron and two flights of No.4 Squadron returned to England. This left only one flight of No.4 Squadron to carry out Corps reconnaissance. The difficulty of doing this was very considerable, and during the afternoon Advanced Component in France signalled Air Ministry to the effect that it was virtually impossible to continue tactical and artillery reconnaissance on the eastern position unless a fighter flight was attached daily as a close escort to the remaining flight of Lysanders, and unless fighter patrols at squadron strength were also flown at arranged times and places. The enemy, it was said, was constantly operating flights of nine fighters over the entire front, and severe Lysander losses were being sustained without any purpose being achieved. The signal concluded: "Failing direct support must discontinue Tac/R and Art/R except for attempts in extreme urgency. Enemy air supremacy naturally has moral effect on troops".

A.128
Advanced
Component to
Air Ministry
1435 hours
22/5/40.

In the difficult situation the reconnaissance of our allies appears to have been of little use. French reconnaissance units had by now suffered great losses and far fewer reports from this source than at the opening of the campaign now seemed to be reaching B.A.F.F. Headquarters. Belgian reconnaissance had been almost entirely eliminated. Two Belgian sorties appear to have been flown

MAY 22ND

on May 22nd, but the general position may be seen from a signal by No. 3 Air Mission at 1815 hours: "No information yet available from British recce. aircraft for Belgian G.Q.G. As Belgian air force now virtually non-existent must seriously urge undesirability leaving them blind their front. Request information quickly as possible British recce. areas in general terms and results today's recce. for transmission to G.Q.G."

Most of the reconnaissance over Northern France and Belgium thus appears to have been carried out under Back Component at Hawkinge, which put up nine Lysander and five Blenheim reconnaissance sorties during the day. Two of the Blenheims failed to return. The chief War Office requirement of the day was for information whether the German mechanized forces in the Hesdin and Abbeville area were striking north and north-east, or were moving west across the Somme. It was clearly ascertained that there was very little movement in the latter direction, and plenty in the former, for enemy forces were seen approaching Boulogne and Calais. In addition, one sortie was despatched in the afternoon for a reconnaissance of Merville aerodrome, to establish whether it could be used by transport aircraft bringing supplies to the B.E.F: the pilot reported that the aerodrome was serviceable for this purpose. In the evening all available Lysanders were diverted to bombing the forces observed advancing on Boulogne.*

BOMBING OPERATIONS (a) In the departments of the Somme and Pas de Calais.

The first operation of the day was carried out by the A.A.S.F., in response to the request on May 21st from G.H.Q. that the Battles should reconnoitre for and attack German tanks in the Amiens - Abbeville - Arras area. Air Marshal Barratt had protested that the task was a most unsuitable one, in view of the dispersion of enemy A.F.Vs, the problem of identification (particularly with the poor view afforded from a Battle aircraft), and the difficulty of hitting such small targets: but pressure was apparently strong from the Air Ministry, and the operations of the Battles on the night May 21st/22nd had in consequence, as recorded above, been cancelled in preparation for these attacks. At about 0500 the first aircraft took off on the task, and in all about twelve seem to have operated. Of these, four returned on account of bad weather, three forced-landed, one returned with its bombs, and one failed to return. Two or three attacks were made on small forces of tanks seen near Doullens, Amiens and Bapaume, but none of the pilots was able to report positive identification, attacks being made because vehicles opened fire on the aircraft. In view of the difficulty of finding and identifying targets, particularly in overcast weather, execution of the task was held up on B.A.F.F. orders at 0930 hours: and shortly afterwards Air Marshal Barratt 'phoned D.C.A.S. to

* See below page 298

MAY 22ND

announce that the net result of a dozen sorties had been that one tank was hit.

No further bombing operations took place until about 1600 hours, when twelve Blenheims of No. 2 Group took off to attack enemy columns which had been reported in the morning as moving north-east and north-west towards Fauquembergues, and north towards Samer. Direct hits were obtained on columns just south of Samer at about 1700 hours, and useful information was brought back of enemy forces seen on the roads from Hesdin to Fauquembergues, and between Hesdin and St. Pol. The Blenheims operated apparently without fighter escort; two were lost, and two prevented from bombing by anti-aircraft fire.

Shortly afterwards - at 1745 hours - fourteen Blenheims took off to search for, and attack, enemy armoured forces reported as "debouching from Abbeville on the Montreuil and Hesdin roads". Fighter support, but not close escort was arranged over the Abbeville area. While in the air, there was an endeavour to change the target by W/T, aircraft being ordered to bomb troops approaching Samer from the south - presumably those reported by the Blenheims which had just landed from the previous operation. Those of the aircraft which received the message found and attacked at about 1900 hours a convoy of some 200 closely spaced lorries in this area, but no direct hits were claimed. Others attacked vehicles on the Abbeville - Montreuil and the Abbeville - Hesdin roads. No Blenheims were lost from the operation.

The next operation of the day was carried out by twenty-six Blenheims, which took off from Watton and Wattisham at about 1845 hours. Some of these had been given the same objective as that originally given to the previous formation - columns debouching from Abbeville; and, as in the operation an hour earlier, this was changed, while the Blenheims were airborne, to 'troops and transport between Montreuil and Samer'. Tanks and transport were attacked on the northern section of the road, and one of the last aircraft reported that a stretch of the highway just south of Samer was destroyed. One Blenheim was shot down by anti-aircraft fire from an attacked column. Tanks and armoured cars were also seen approaching Boulogne on the coast road from Etaples.

Two further operations were carried out before the close of the day. Eleven Lysanders, sent off by Back Component, attacked columns moving on Boulogne at about 2000 hours, and half an hour later six Blenheims delivered an attack on the village of Ribeaucourt (a few miles west of Doullens), which the French had asserted was the headquarters of the 2nd Panzer Division. They reported that most of their bombs fell in the village.

The decline in losses during the daylight operations was again in evidence, for, of the twelve Battle, eleven Lysander and fifty-eight Blenheim bombing sorties during the day, one Battle, one Lysander and three Blenheims failed to return.

MAY 22ND.BOMBING OPERATIONS(b) By night:Communications leading
to and across the Upper Meuse

The Meuse crossings and the communications leading to them were the main objectives for the night bombing. The A.A.S.F. despatched twenty-six sorties against crossings over the Meuse (at Fumay and Chateau Regnault), and their lines of approach both in Belgium (a revictualling yard near Florenville) and in Germany (Conz and Bingen). Nine aircraft, however, returned without locating a target, for operations were hampered by rain, low cloud and mist.

X. 318
A.M. to B.C.
22/5/40.

Bomber Command, on a programme concerted with A.O.C.-in-C., B.A.F.F., also directed its major effort against the lines of communication leading across the Upper Meuse. Fifty-six Wellingtons, Whitleys and Hampdens were scheduled to attack roads and railways at Gembloux, Binche, Yvoir (where an enemy W/T station for controlling dive-bombers was also reported), Dinant, Givet and Hirson. A forecast of fog over certain home bases (which proved to be accurate) restricted operations and only twenty-seven aircraft actually took off on these tasks. Six sorties proved entirely ineffective: most of the remainder reported hits at various points. All aircraft returned safely.

BOMBING OPERATIONS(c) By night: Oil targets in Germany

X. 342
A.M. to B.C.
22.5.40.

After it had been decided that Bomber Command's effort should be against German communications, a modification was made (on whose initiative it is not clear, but probably on that of the A.O.C.-in-C., Bomber Command) by which the synthetic oil hydrogenation plant at Leuna, near Merseburg, was given a leading place in the night's objectives. Thirty-six Hampdens were accordingly scheduled to attack this target, but the operation was then cancelled on account of bad weather. One aircraft did, however, take off, and claimed to have hit the power station at the plant, causing a chimney to fall.

The fact that it was intended again to attack oil on this night illustrates the cross-currents that were so prevalent in the selection of targets. For on May 15/16th the oil objectives had first been attacked; on May 20/21st the attack against oil in Germany had been called off in favour of concentration against communications; and on May 22/23rd, but for the weather, oil targets would have occupied a substantial proportion of the night's efforts.

FIGHTER OPERATIONS(a) Fighter Command

Fighter Command aircraft were engaged on two main tasks during the day - over the Channel ports (Dunkirk, Calais and Boulogne) and a few miles inland and over the area of the allied 'attack' to the south (St. Pol, Arras, Bethune). The Channel ports task was /carried

May 22nd

carried out by Hurricanes and Spitfires from dawn to dusk, varying between flight and squadron strength. Enemy aircraft were engaged in the early morning and at about 1930 hours, when some thirty Ju. 87's and twenty Me. 109's were encountered near St. Omer. This combat was joined by Hurricanes which had acted as escort to Ensigns ferrying food supplies to Merville for the B.E.F.

A.133. A.134.
Adv. Comp.
to A.M.
22.5.40

Several patrols were carried out in the Arras area, though complaints of their absence came from Advanced Component Headquarters. The first complaint - at 1600 hours - spoke of the enemy aircraft reconnoitring our positions, registering batteries unimpeded, and enjoying complete freedom of action against the B.E.F., the First and the Seventh Armies. The second - at 2100 hours - complained of an absence of fighter support over Arras for the past two days. In fact, however, patrols were certainly flown over this area. The general line agreed between Air Marshal Barratt and General d'Astier was Maisnil (S. of St. Pol) - Bouchain - Valenciennes - Condé - Maulde; the actual patrols carried out, however, do not seem to have extended so far west, but to have taken place over the triangle St. Pol - Bethune - Arras. * The first of these patrols was cancelled on account of bad weather, but six others were flown between midday and 2100 hours. The main encounters occurred soon after midday, when No. 605 Squadron claimed to have destroyed three He. 111's near Arras, but lost four Hurricanes to the Me. 109 escort in the process: and at about 1630 hours, near Doullens, when several He. 126's were found and engaged.

The extent to which the British fighter resources were now engaged over France may be seen by the fact that No. 604 Squadron (Blenheim fighters) which had been supplying night patrols, was now called on to operate at flight strength over Boulogne and Dunkirk by day. In all, the Hurricanes, Spitfires and Blenheims of Fighter Command carried out twenty-six patrols over the continent, involving one hundred and ninety eight sorties. They claimed the destruction of sixteen enemy aircraft for the loss of two of their own.

FIGHTER OPERATIONS

(b) A.A.S.E.

The Hurricanes of No. 67 Wing do not appear to have carried out any offensive patrols on this day. One flight took off in the morning, and another in the evening, to intercept enemy bombers sighted in the South Champagne area, but no combats resulted.

* B.A.F.F. requested Z.O.A.N. to undertake patrols against dive-bombers expected in the Arras - Cambrai area, explaining that they were unable to get into touch with No. 14 Group. It is not clear whether B.A.F.F. knew that No. 14 Group had evacuated to England the previous day. (See North B.A.F.F. telephone log, 22.5.40, passim.)

301

MAY 23rdMILITARY SUMMARY

The full pattern of the German attack had now emerged beyond doubt: the enemy was intending to finish off the allied armies of the north, which he had so successfully cut asunder from those of the south. In consequence, though the Allies made attempts to rejoin their severed forces, events in the north proceeded to some extent independently of events along the Somme and Aisne. Within a few days it became clear that a retirement on Dunkirk, and evacuation from that port, was the best that could be hoped for the allies in the north, and to an increasing degree R.A.F. operations from England became concentrated on securing this great end. Meanwhile the A.A.S.F., on the southern side of the enemy penetration, had neither the detailed information nor the range to intervene closely in the northern battle, and its activities were directed to more general ends. It will thus be convenient from this point onwards to trace first the course of the land and air operations in the north which concluded on June 3rd/4th with the departure of the last vessels from Dunkirk: secondly the operations along the Somme and Aisne up to June 4th, and the preparations for the defence of this vital river line: and finally, in greater detail, the progress of the fresh enemy offensive which opened to the south on June 5th, and finished with the Franco-German armistice. X

Gort's despatch:
Military Branch
Narratives: Reports
by Colonel Whit-
field, Rear-Admiral
Wake-Walker and
Vice-Admiral
Ramsay

By May 23rd the allied armies north of the Somme and Aisne were hemmed in with their backs to the sea. In the north-west, Boulogne was at the end of its tether; and the night 23rd/24th saw the successful completion of British evacuation, and the occupation of the last parts of the town by the enemy. Calais, too, was cut off, for reinforcements which arrived to safeguard the road to Dunkirk found, at the end of the day, that the enemy

X The second and third of these divisions will be found in Part IV of this narrative.

/barred ...

MAY 23rd.

barred their path. The right of the main allied line began, in fact, at the coast by Gravelines, extending inland along the Aa and the Canal de l'Aa to St. Omer, and thence along the Canals through to Aire, Bethune and La Bassée. From Carvin the reserve line of the Scarpe across to St. Amand was held by Macforce (not in contact with the enemy): while in advance of this the French First Army maintained a wide bulge to the south-east, bounded approximately by Douai, the Canal de la Sensée and the Escaut, through Valenciennes and Condé to Maulde. North of this the B.E.F. was retiring to, and holding the fortified Franco-Belgian frontier as far as Halluin, whence the line of the Lys, held by the Belgians, bent sharply forward to Ghent and Terneuzen. By the following day this extremity of the line had been withdrawn somewhat on the coastal sector, to the Canal de Derivation de la Lys, but it still presented an attractive object of attack.

This general area contained something like a million allied troops. On May 23rd the pressure was strongest in the south-west quarter; in consequence Frankforce, (in advance of the general area and defending Arras) was withdrawn to the neighbourhood of Seclin, and the French who had reached the northern outskirts of Cambrai retired again to the Canal de la Sensée. In addition an attack was made by the enemy against the canal line between Watten and Aire. Bridgeheads were captured in both places, and midway between them, at St. Omer: and armoured fighting vehicles penetrated to within three miles of Hazebrouck. The line was thus no sooner formed than breached. This thrust, however, was not as yet deemed sufficiently critical in London and Paris for hope to be abandoned of executing the 'Weygand plan', by which the isolated armies of the north were to attack south-westwards, and link up with the armies of the Somme and Aisne attacking north and north-eastwards. During May 23rd, in fact, the Prime Minister signalled M. Reynaud in strong terms: "Salvation of (the Northern Armies) can only be obtained by immediate execution of Weygand's plan. I demand that French Commanders in north and south and Belgian G.Q.G. be given most stringent orders to carry this out and turn defeat into victory".

Gort's
Despatch,
para. 38

RECONNAISSANCE AND BOMBING OPERATIONS:

(a) Organisation, May 23rd - June 4th.

Arrangements for reconnaissance during this period were largely in the hands of 'Back Component' at Hawkinge. A requirement was usually received from a military source - from G.H.Q. (via the small

May 23rd

A.H.B.
IHH2/593
para. 12

remnant of R.A.F. Component Headquarters which remained in France till May 29th) or later from the War Office. These requirements were mostly stated in broad terms, and it was the function of Back Component to supply sorties (by Lysanders and Blenheims returned from France) to cover the general requirement as fully and as frequently as possible. To the details gathered from reconnaissance, Back Component added information received from many other sources, the most important of which were returning bombers, Air Ministry intelligence, and the Hawkinge wireless interception station. It is recorded in the official report on Back Component that no information whatsoever of the enemy land forces came from the War Office or any Army source (save from No.3 Air Mission, until it ceased operating on May 27th): and that more information of the disposition of our own forces was obtained from wireless interception of German messages than from the War Office.

The absence of information from military sources had its counterpart in the difficulty of communicating the results of air reconnaissance to the B.E.F. Until the return of the last R.A.F. Component personnel from France on May 29th a W/T link existed with G.H.Q., but this was overloaded with traffic, and little information can have reached the military units in time to be of use. After this date the position became worse still, for information had to be passed to France via the Air Ministry and the War Office. If the reconnaissance can have had little value from the point of view of direct ground action, it was nevertheless of use as a guide to air action for the benefit of the ground forces. The main handicap in this direction was not the absence of information, but the delay that usually elapsed before bomber and fighter sorties based on the results of information could be arranged.

From May 21st to May 25th the function of Back Component was simply to control air reconnaissance, and during this period the co-ordination of reconnaissance, bombing and fighter operations was done by the Air Ministry (F.O.7.). From the evening of May 25th, however, until the completion of the Dunkirk evacuation and the disbanding of Back Component on June 4th, this co-ordination was carried out by Back Component. The task, it must be emphasised, was no light one: for an impromptu headquarters, inadequately staffed, and suffering four changes of command inside the sixteen or seventeen days of its existence, had to co-ordinate air action for the benefit not only of a military but of a naval situation. To achieve this difficult end, it had direct control of reconnaissance aircraft, but no executive control over bombers and fighters - except in so far as Lysanders could also carry bombs. Communication with Bomber and Fighter Command thus involved not the issuing of orders, but the framing of requests.

RECONNAISSANCE AND BOMBING OPERATIONS: (b) The Boulogne area

On May 23rd, when nine Lysander and seven Blenheim reconnaissance sorties were flown for the loss of two Blenheims, useful information was brought in from several areas. For the first time for two days information was obtained over the main B.E.F. front, since the Blenheim concerned was given fighter escort. Over the Boulogne and Calais areas forces were seen approaching the ports; and a battery of guns was spotted some three miles south of

May 23rd

a battery of guns was spotted some three miles south of Boulogne. Subsequent Lysander sorties over this area were therefore ordered to carry bombs, and two aircraft of No. 16 Squadron attacked the battery. Later sorties were unable to locate it. The Somme line was reconnoitred in the afternoon, and the state of the bridges observed up to Picquigny. Little movement was seen here, however.

First priority for the bombing operations of the day was accorded to the defence of Arras, but in consequence of the reconnaissance reports received, an alternative target was given - tanks and troops in the Forest of Boulogne. Twenty-four Blenheims of No. 2 Group took off at about 1030 hours, but failed to attack in the Arras area on account of cloud conditions. Those which bombed at all attacked targets in the alternative area, near Boulogne, but ten aircraft did not bomb, and four failed to return after encountering anti-aircraft and fighter opposition. Three Blenheims directed in the evening against a target in the forest near Boulogne were also unable to bomb accurately - not this time on account of the weather, but on account of the persistent fire of British destroyers off shore.

BOMBING OPERATIONS: (c) By night. German communications in France, Belgium, Holland and Germany.

The night bombing, May 23rd/24th, on a programme concerted with the French, was almost entirely devoted to attacking German communications at some distance from the battlefield. Thirty-seven A.A.S.F. Battles were directed against communications across the Upper Meuse at Montherme and Fumay: further east against dumps and sidings at Libramont and Florenville: and in Germany at Bingen. Six aircraft returned without bombing, and most results were unobserved. At the same time, forty-nine Wellingtons of No. 3 Group took on the Meuse crossings further north - Givet, Dinant, Yvoir-Anhee - and the main centres of communication up to about 25 miles west of the Upper Meuse - Liart, Hirson, Philippeville, Beaumont, Binche, Fleurus, Charleroi, Gembloux. In addition, twenty-four Whitleys attacked the communications west of the Meuse leading to Cambrai and Valenciennes - La Capelle, Avesnes, Aulnoye, Mauberge, Bavai.

This effort against German communications in France and Belgium was supplemented by attacks on railways in Germany along the Rhine and west of the river, and in Eastern Holland. These were carried out by the Hampdens of No. 5 Group, fifty-one aircraft taking off (of which seven sorties proved abortive). Only two sorties were despatched over the Ruhr, being intended purely for nuisance value.

From the night's work, involving about 161 sorties, one Battle, one Whitley and two Hampdens failed to return.

FIGHTER OPERATIONS:

The increasing effort from home bases, for which Fighter Command had been called on since May 21st, continued on May 23rd. Escort patrols covered Blenheim reconnaissances to both the Ypres and Arras areas, transport aircraft from

/Merville,

Merville, and Blenheim bombers to Arras. Offensive patrols were flown over the Arras - Cambrai - Lille - St. Omer area by Hurricanes, and along the coast - Boulogne - Calais - Dunkirk by Spitfires and Defiants. Some twenty patrols were flown in all, mostly at squadron strength, and about half of these resulted in combats. The most notable engagement was in the evening, when No. 92 Squadron (Spitfires) fell in with a very large enemy formation in the Boulogne - Calais area. The squadron, for the loss of three Spitfires, claimed the destruction of three bombers and five fighters confirmed, together with five more fighters unconfirmed. In all, during the day about 250 sorties were flown on patrols to the continent; ten of our pilots failed to return: and claims amounted to about fourteen enemy aircraft destroyed, plus nine "unconfirmed".

MAY 24thMILITARY SUMMARY

Document
No. 34
24/5/44

During May 24th the prospect of any co-operation in the Weygand plan by the armies of the north was rendered **still more remote** by a fresh German attack. While the British forces in Calais were ordered to hold on "for the sake of Allied solidarity", and while German pressure on the western flank continued in the region of St. Omer and Aire, the enemy struck hard against the Belgians in the east. The Belgian line along the Lys, jutting forward almost at a right angle from the B.E.F. along the Franco-Belgian frontier, was an obvious temptation, and the enemy struck, as so often before, near the junction of two forces. Crossing the Lys on either side of Courtrai the Germans advanced north and north-west, with the obvious intention of forcing the Belgians northwards, and opening up a gap between them and the B.E.F.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The Pas de Calais and the Dept. du Nord.

On May 24th, when eight Lysander and nine Blenheim reconnaissance sorties were put up by Back Component, little was seen in the morning in the northern area. Nine Blenheims of No.2 Group, however, detailed to seek out any columns approaching Calais, found some forty A.F.Vs near St. Inglevert, at about 0945 hours, and attacked them. In consequence of this, twelve more Blenheims of No.2 Group were despatched during the morning against the same target, six attacking at about 1100 and six at about 1200 hours. By this time the returning bombers reported that the A.F.Vs now numbered about a hundred. When, however, a further twelve Blenheims were despatched at 1400 hours, they were unable to find any A.F.Vs near St. Inglevert, and were reduced to bombing the Forest of Boulogne, from which anti-aircraft fire had been encountered. Photographs taken, however, revealed a large concentration of enemy armoured vehicles a few miles west of Calais. At about 1850 hours, some four hours after the previous sorties had returned with their photographs, twelve more Blenheims attacked the vehicles in this area, though they were by now found to be well dispersed. In addition to these attacks by No.2 Group, six Swordfish of No.825 Squadron, operating under Coastal Command, and failing to find a gun battery reported west of Calais, located and attacked an enemy column near St. Inglevert.

The bombing south-west of Calais had been mainly based on reports by returning bombers: in the early afternoon, however, enemy columns were seen by Back Component aircraft in the region of Audruicq and Calais, moving north-east and east towards Gravelines. This meant that Calais, cut off from Dunkirk since the previous evening was being by-passed by considerable forces. At 1645 hours a concentration of some two hundred tanks and transport was reported facing east at the demolished bridge at Gravelines, and by 1810 hours three Back Component Lysanders - all that could be made available - had attacked them. Ten Swordfish of No.825 and 872 Squadrons followed very shortly afterwards. In addition, at about 2040 hours twenty-four Blenheims of No.2 Group attacked the roads where this formation had been reported, and the bridge over /the

May 24th

the Canal at Marck, but the oncoming darkness made observation of results difficult. From the eighty-eight bombing sorties of the day, two Blenheims and two Swordfish - apparently the victims of anti-aircraft fire - failed to return.

In addition to furnishing reports of the forces isolating Calais, reconnaissance aircraft during the day were also able to note a general movement of enemy mechanised transport northwards, particularly on the road Amiens - Doullens - St. Pol. No bombing sorties, however, were despatched against this.

BOMBING OPERATIONS: (b) By night. Communications in France, Belgium and Germany. Oil tanks at Rotterdam. A factory at Leverkusen.

The night sorties, May 24th/25th, on the general programme arranged in response to French requests, were again directed against enemy communications at various distances from the battlefronts, save for six Whitleys detailed against a chemical factory at Leverkusen, near Cologne, and eight Hudsons of Coastal Command assigned to attack the oil storage tanks at Rotterdam. Several aircraft were given aerodromes as alternative targets to communications. The A.A.S.F. (41 Battles) again attacked the Meuse crossings (and the roads leading east and west) at Sedan, Fumay, Givet, and Dinant, together with the ammunition siding near Libramont and the revictualling yard at Florenville. Bomber Command aircraft also took on two of these targets (Libramont and Givet), some Meuse crossings further north (Dinant and Yvoir Anhee), and roads (or columns on them) west of the Meuse at Binche, Mons, La Capelle, Avesnes, Aulnoye and Bavai. In the same area an ammunition and fuel dump at Glageon, near Fournies, was also attacked. Communications further north, in advance of the main B.E.F. front, were attacked at Auderghem, Louvain, Tirlemont and Hal; while other aircraft were directed against railway traffic over lines extending back from Liege and Maastricht to the Moselle and the Rhine. The ~~Rosmond~~ - Neuss line, west of Dusseldorf, was again attacked, but sorties east of the Rhine were limited to six, for harassing action against the marshalling yards at Duisburg, Essen and Dortmund. From the forty-one A.A.S.F., fifty-nine Bomber Command and eight Coastal Command bombing sorties no aircraft was lost, and not more than seven or eight returned with ~~their~~ bombs on.

North BAFF
24/5/40
Entry of
2020 hours

To supplement these attacks by British aircraft, the French promised to arrange for not less than fifty sorties against communications in the area for which they had accepted general responsibility - Guise - St. Quentin.

FIGHTER OPERATIONS

Fighter Command again put forth a big effort to cover the Pas de Calais and the Nord. Apart from escorts to Hlenheim and Swordfish bombers in the afternoon and evening, patrols were devoted to the coastal area, Boulogne - Calais - Dunkirk, or to a shallow penetration inland by the Hurricanes over

/the

the St. Omer district. Patrols were again about twenty in number, and mainly at squadron strength, but somewhat fewer combats resulted than on the previous day. No. 54 Squadron (Spitfires) was twice hotly engaged. At about 1400 hours, between Calais and Dunkirk, it encountered some seventy German bombers, escorted by Me.109s. and Me.110s, and in the resulting combat - its first big air battle - claimed several of the enemy for no loss to itself. Later, at 1710 hours, the squadron engaged twelve Me.109s. over Calais, and shot down four for the loss of two Spitfires. In all, about fifteen enemy aircraft, plus several more 'probables' or 'possibles' were claimed during the day, while ten of our pilots failed to return. [#]

[#] The figures of claims vary widely in every conceivable source. Four of the ten pilots rejoined 11 Group later.

MAY 25thMILITARY SUMMARY

On May 25th the pressure on all sides continued. Calais, isolated, still clung on: in the west, the canal line was further breached, midway between Aire and Bethune; and in the south the enemy attacked the French First Army on the Escaut between Denain and Bouchain. The attack on the Belgians in the east made great headway, their troops being forced away from the Lys near Menin and Courtrai in the general direction of Roulers. To fill the gap opening north of Menin, Lord Gort was obliged to utilise the two divisions he had earmarked for an attack to the south, and these were ordered to extend the British left flank to Ypres, along the canal from Comines. With this disappeared the last chance of the B.E.F. participating in the 'Weygand plan'. Nor were the Belgians able to reinforce the right of their line at the expense of the left, for the enemy now attacked them nearer the coast as well, crossing the Canal de Derivation de la Lys west of Ghent.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) In the Pas de Calais and the Dept. du Nord

During the day Back Component put up eleven Lysander and ten Blenheim reconnaissance sorties. The progress of the enemy force moving east from Calais towards Dunkirk was further traced, an early morning sortie reporting that the column had turned a little south from Gravelines, and had succeeded in crossing the canal (the river Aa?). Six Blenheims of No.2 Group, on armed reconnaissance under fighter escort over this area from about 0545 to 0645 hours, attempted to impede this progress towards Dunkirk by destroying two bridges over the Aa south of Gravelines: and they also reported the presence of columns a few miles south of Calais, moving north-east towards Gravelines. This report caused the despatch of twelve further Blenheims, again under escort, arriving over the target area at about 11.30 hours. They found, and attacked, enemy transport south of Calais, near Guines and Rehy, but they also encountered ~~unlike~~ the previous day - fighter opposition. Two Blenheims were shot down, but one, or possibly two, Me.109s were claimed in return. The Hurricane escort was meanwhile engaged with Ju.87s found about to attack shipping off the coast.

No enemy concentrations were seen in the Gravelines area during the afternoon, and eleven Swordfish, at about 1520 hours, seeking a force of fifty tanks reported south of Gravelines, were reduced to looking for, and bombing, individual vehicles. The Swordfish were well protected by their fighter escort, which successfully engaged a formation of ten Me.109s and six Me.110s. Later a report was received from the War Office that the Calais garrison was being worried by a battery situated near Sangatte, and a Lysander despatched on reconnaissance returned at 1800 hours with a pin point. It had now been arranged that

/No.613

May 25th

No. 613 Squadron (Lysanders and Hectors) should form a reserve bombing force under Back Component, and the Lysander flight, which had been standing by, was promptly sent off. The battery was apparently located, but after the first bombs had fallen smoke and dust obscured results, and made accurate aiming even more difficult.

RECONNAISSANCE AND BOMBING OPERATIONS: (b) Other areas.
Between Menin
and Courtrai.

Reconnaissance in other area during the day - notably Boulogne, St. Pol and the Somme line (covered by three sorties from South Component at Rouen) - discovered little movement, though the advance of our own Armoured Division a few miles north of the Somme was traced. No reconnaissance reports survive from the main B.E.F. front in Belgium, but general reports had been received of the German attack begun the previous day, at the junction of the British and Belgian forces. The bombing operation delivered in this area at about 1700 hours on May 25th was based on a Belgian military requirement (transmitted by No. 3 Air Mission and Advanced Component), amplified by Belgian air reconnaissance. Twenty-four Blenheims of No. 2 Group, under fighter support, were detailed to attack pontoon bridges over the Lys between Menin and Courtrai. Several bridges were seen, including pontoons (one of which was revealed by photographs to be in use by the enemy): nearly all bombing results, however, were unobserved, and the Wing-Commander of the leading squadron afterwards stated with some emphasis that pontoon bridges made exceptionally unprofitable objectives.

Documents
No. 2, 5, 9 & 10
25/5/40

BOMBING OPERATIONS: (c) By night. Communications in France,
Belgium and Germany.

The French requests for night bombardment, May 25th/26th, were on similar lines to the previous two nights, and attacks were therefore delivered on a wide range of enemy communications, mostly at a considerable distance from the northern battlefronts. The A.A.S.F. continued to attack in the Upper Meuse area, forty-one sorties being ordered against communications and dumps at Florenville, Givet, Nouzonville, and Libramont, and against the road Bouillon - Sedan. The weather was particularly bad, however, and not more than half the aircraft managed to reach their target areas and deliver attacks. The effort of the Wellingtons (38 sorties) was largely divided between the Meuse crossings at Yvoir (where the destruction of a bridge was claimed), and two areas further north in which enemy concentrations were sought - an area in advance of Brussels (Namur - Liège - Maastricht - Louvain), and an area to the rear (Tournai - Nivelles - Ninove - Courtrai). In addition, the exits of Bapaume were the special objective of 18 Whitleys. Railway communications west of the Rhine were taken on by the Hampdens, nine sorties being directed

/against

May 25th

against lines and traffic in the Coblenz - Bonn - Trier - Recogne area, and twenty sorties against the more northerly Cologne - Neuss - ~~Roermond~~ - Liège network. Six Whitleys also endeavoured to bomb three marshalling yards east of the Rhine (at Cologne, Weiden, and Vohwinkel), but only one managed to locate its primary objective.

BOMBING OPERATIONS: (d) By night. Oil tanks at Rotterdam: refineries in Germany

The night May 25th/26th also saw two operations against oil objectives. Five Hudsons of Coastal Command repeated the attack on the oil tanks at Rotterdam, some of which were found already burning when the first aircraft arrived: and in addition an operation against oil refineries in Germany was undertaken for the first time since May 22nd/23rd. Eleven Whitleys were directed against the oil refineries at Emmerich, Monheim, and Reisholz. In the bad weather of the night, however, identification was particularly difficult, and though five aircraft claimed to have bombed a primary objective, others were obviously at a loss to find their target. One pilot, for instance, reported that he spent over an hour searching for the refinery, and that he dropped no less than five flares in a vain effort to identify it.

The events of May 25th/26th again illustrated the security of night operations. Though 143 aircraft (including the A.A.S.F.) took part, in the most trying of weather conditions, not more than three or four were lost - a Hampden, a Wellington and one (or two) Battles.

FIGHTER OPERATIONS:

About half of the 151 sorties flown over the continent by Fighter Command on May 25th were devoted to close escort of bombing or reconnaissance missions. The remaining patrols were flown along the Boulogne - Calais - Dunkirk line, or over the Lille - Ypres area. Several combats resulted, and for a total of two of our pilots missing, claims were made which amounted to 28 enemy aircraft 'confirmed' as destroyed, plus 5 'probably destroyed'.

MAY 26THMILITARY SUMMARY:BEGINNING OF OPERATION 'DYNAMO'

May 26th saw the end of the heroic resistance at Calais, and the installation of German guns on the coast between Calais and Gravelines. The pressure on the allied western flank fortunately made little progress, and an attack on a French division further south, near Carvin, was driven back with British assistance. The assault against the Belgians on the east, however, was more and more dictating the final shape of events: for on this front the enemy advanced everywhere - towards Ypres, Roulers and Thielt in the Lys sector and towards Bruges in the coastal sector. A Belgian retirement behind the Yser, to effect a short line between Ypres and the sea at Nieuport, was now, in the opinion of King Leopold, impossible: the hinge between B.E.F. and Belgians was being broken, there were no Belgian reserves to mend matters, and the whole Belgian army was being driven north. Faced with this situation, and with Lord Gort's decision to prolong his front to the left by utilising divisions earmarked for an attack to the south, General Blanchard (who had succeeded General Billotte as commander of the 1st Group of Armies) was now brought to recognise the impossibility of executing the Weygand plan. He accordingly agreed to abandon the Escaut and the other water lines on the southern flank, and with the British to retire north behind the Lys. Meanwhile the authorities at home, appreciating at length that a serious French offensive from the Somme-Aisne was no more likely to eventuate than one from the north, authorised Lord Gort "to operate towards the coast forthwith in conjunction with the French and Belgian armies".

Admiral
Ramsay's
report.

The order to 'operate towards the coast' could have only one meaning - to evacuate from Dunkirk and the nearby beaches - and the basis of an organisation to control such an operation had already been improvised. On May 19th - that same Sunday which saw the order to Lord Gort to fight his way south, and the decision to evacuate most of the R.A.F. Component - Admiralty representatives had attended a meeting at the War Office to discuss the supply of the B.E.F. through Boulogne, Calais and Dunkirk, and the possible (but "unlikely") evacuation of a very large force in hazardous circumstances. It was then decided that the operation ("Dynamo") should be prepared (and executed, should need be) by Vice-Admiral, Dover (Vice-Admiral Ramsay). Other meetings had followed on May 20th and 21st to consider the "emergency evacuation of very large forces", while on May 23rd/24th, under this organisation, Boulogne had in fact been successfully evacuated. There is no doubt that the troops in Calais, too, could have been got out, had such been the policy of the government. It thus came about that an organisation was in being - though without adequate forces as yet at its disposal - ready to implement "Dynamo" as soon as the signal should be given: and at 1857 hours on May 26th Vice-Admiral, Dover was ordered to put the full operation into effect.

Already before the full operation began, there had

May 26th

31.5.40.
Document
No.39

been some evacuation of "unwanted mouths" - troops from nearby districts who would, in the difficult supply situation, merely incommode the fighting elements. On May 20th Colonel Whitfield had been appointed Commander of British elements in the Dunkirk area to supervise this process, which began on May 22nd. German air attacks on the town and port had by then already commenced, and on May 24th the water-supply of the town had been broken. These attacks, however, had not been such as to prohibit the limited evacuation then in force, or to make the landing of supplies an impossibility.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) Near Courtrai

Co-ordination of reconnaissance, fighter and bombing operations was now the responsibility of Back Component, which, on May 26th, experienced two changes of command. In the morning Air Marshal Joubert arrived from Air Ministry to take over; but by the evening Air Vice-Marshal Blount, who had returned from France a few days earlier, assumed command. Another arrival in the evening was Lieutenant Colonel Festing from the War Office. His task was to help in co-ordinating arrangements with Vice-Admiral, Dover, and with the R.A.F. for the evacuation of the B.E.F.

Three Blenheim reconnaissance sorties were sent during the day over the area of German pressure on the Belgians, but all failed to return. What was lacking in air reconnaissance information in this area was, however, partly compensated for by the excellent situation reports received from No. 3 Air Mission, and a bombing operation in support of the Belgian forces was accordingly undertaken. Eighteen Blenheims of No. 2 Group under fighter escort, at about 0800 hours, operated against enemy troops and transports approaching the crossings of the Lys on either side of Courtrai. Columns of no great size, as well as bridges and roads, were attacked without loss.

BOMBING AND RECONNAISSANCE OPERATIONS: (b) The Pas de Calais and the Dept. du Nord.

The Calais area was early reconnoitred by Lysanders, who witnessed enemy aircraft dive-bombing, and found a battery (which we had bombed the previous day) still firing south-west of the town. At 0950 hours six Hectors of No. 613 Squadron, part of the 'reserve bombing force' under Back Component, therefore took off for a renewed attack on the battery, but identification was again difficult, and no definite results were observed.

Inland from Calais the St. Omer - Hazebrouck - Aire district was several times reconnoitred, but little decisive movement was seen. Nor was the information obtained of the German threat further south, about Carvin, sufficiently detailed, in the opinion of A.O.C.-in-C., Bomber Command, to warrant the launching of any bombing operation against this area.

May 26th

Equally the sorties from Rouen - Boos which reconnoitred the lower reaches of the Somme were unable to report any targets of importance.

In consequence of the fact that no large enemy formations were pin-pointed by reconnaissance on this day, the remaining bomber operation was despatched with the primary task of attacking aerodromes in the St. Pol area. B.A.F.F. had reported that these were being used by German troop-carrying aircraft, while the War Office had given details of an enemy scheme to bring up large supplies of petrol by air. The eighteen Blenheims which took off, under fighter escort, at about 1710 hours, however, failed to note any sign of enemy activity on the aerodromes about S. Pol, and accordingly proceeded to execute an alternative task of finding and attacking vehicles and troops previously reported in the neighbourhood of the forest of Hesdin. No fighter opposition was encountered, and again none of our aircraft was lost - a welcome change from the casualty rates by day, in the first week of operations.

BOMBING OPERATIONS: (c) By night. Communications and aerodromes.

The attack on the communications of the German army in France and Belgium proceeded on the night May 26th/27th. While the French agreed to take on the area Guise - Cambrai - St. Quentin, Bomber Command endeavoured to interfere with enemy movement forward of the line Courtrai - Ghent, as far east as the Meuse. In addition, nine Hampdens were directed against the Meuse crossings at Dinant, Anhee and Namur, while other Hampdens (twelve in all) were detailed to attack the railway system, and in particular moving trains, between the Meuse and the Rhine. Only four of these twelve Hampdens succeeded in finding railway objectives which they considered important enough to attack. The A.A.S.F. was also scheduled to attack enemy communications in the Upper Meuse area, but the weather was so unfavourable that very few aircraft finally took off - some six or seven, apparently - and of these only one succeeded in attacking its target - communications at Givet.

The remaining attacks of the night were delivered against enemy aerodromes. Three aerodromes reported to be occupied by dive bomber units, Antwerp, Brussels and Jumet (near Courcelles) were sought out by ten Wellingtons, seven of which claimed to have inflicted damage on their objectives. Other aerodromes, and in particular Flushing, were bombed as last resort targets by Hampdens which had been unable to find railway traffic to attack.

The night's work involved fewer sorties than usual, since the Witleys did not operate, and the A.A.S.F. was restricted by bad weather. All the fifty or so British aircraft that took off on bombing missions returned safely.

FIGHTER OPERATIONS:

With the exception of escorts to the bombing operations of the day, and two inland sweeps, fighter patrols were now devoted exclusively to the line Calais - Dunkirk. An effort was made to supply practically continuous cover along this line over the greater part of the day, patrols

May 26th

at squadron strength taking off from the South-Eastern aerodromes at approximately every fifty minutes from 0430 to 1930 hours. Morning patrols came up against the enemy at about 0500, 0530, 0615, 0815 hours, encountering Ju.88s and Ju.87s under fighter escort, apparently bent on attacking the town of Calais and shipping off Calais and Dunkirk. The biggest combat took place off Dunkirk at about 0915 hours, when No. 19 Squadron engaged 21 Ju.87s, escorted by about 30 Me.109s, and claimed ten of the enemy aircraft destroyed for the loss of two Spitfires. There were combats again at about 1300 hours, and then no engagement except with single aircraft. At about 1600 hours weather deteriorated, and bad visibility caused one of our patrols to return: from 1700 to 2130 hours, however, patrols were again maintained continuously, without any important engagements resulting. In all about 200 sorties seem to have been flown: and for a loss of six of our own aircraft, claims were made which amounted to some twenty of the enemy 'confirmed' as destroyed - five Ju.87s, five Ju.88s, ten Me.109s and one Hs.126.

MAY 27thTHE EVACUATION

31.5.40
Document
No.39

With the beginning of full evacuation on the evening of May 26th, another chapter opened. Good progress was made during the night 26th/27th, but the day of May 27th saw a new intensity of German air attack on the town of Dunkirk, which was more or less destroyed. The success achieved by the enemy in this direction, however, was to have one result unfavourable to himself, for during the remainder of the evacuation black smoke from the oil tanks hit on this day eddied over the town, and somewhat lessened the likelihood of accurate attack from the air. In consequence of the damage inflicted on the town Colonel Whitfield ordered the British troops to the dunes outside. On the same evening he handed over control of embarkation to a small staff of naval officers who had arrived, led by Captain Tennant, thenceforward S.N.O. Dunkirk.

Evacuation during the day did not go according to plan, for five transports endeavouring to approach along the normal course (a matter of eighty miles round trip from Dover) came under fire from enemy batteries near Gravelines, and turned back. This necessitated vessels thenceforth using a roundabout approach to Dunkirk from the east (the Zuydecote pass - making a round trip from Dover of 172 miles), until such time as a shorter central route could be swept. In all, personnel vessels succeeded in taking off some 4,000 troops during the day, but the effect of the air attack caused S.N.O. Dunkirk to signal Vice-Admiral, Dover at 2005 hours, that embarkation thenceforward would be possible only from the beaches - a most grave limitation of effort.

THE ORGANISATION OF THE PERIMETER: THE RETIREMENT ON DUNKIRK

Gort:
Despatch
para. 47

In order to ensure the retention of the Dunkirk bridgehead until the B.E.F. should be evacuated, it was necessary to organise a defensive perimeter through which the troops could retire. General Adam (who had now been detailed by Lord Gort to undertake this duty, and to arrange the military side of the evacuation) reached agreement with the French, early on May 27th, that the perimeter should extend from Gravelines south-westwards to the Canal de la Colne, and thence along the canal through Bergues and Furnes to the coast at Nieupoort. Of this, the French were to hold the western half from Gravelines to Bergues (inclusive), the British the eastern half, from Bergues (exclusive) to Nieupoort. Already on May 27th, however, while the perimeter was being organised, and troops were beginning to pass through to the port and beaches, the French side was contracted. Evacuating Gravelines owing to enemy pressure, they retired to a line from Mardick to Spyker (on the Canal de la Colne). This meant that the enemy on the west was now not much more than five miles distant from Dunkirk, and that his artillery could, as the day showed, prove an increasing menace both to the port and to the shipping approaching it.

While these events were occurring at Dunkirk and in the immediate neighbourhood, the situation inland grew hourly more tense. On May 27th, with enemy pressure on the allied western flank renewed between St. Omer and Hazebrouck, and on the south at either side of Carvin, the Anglo-French retirement north of

May 27th

the Lys began. During the night the B.E.F. completed this move, with their left flank duly extended to Ypres. The French First Army, however, had further to go, professed themselves in part too tired to withdraw, and were in any case reluctant to acknowledge the inevitable: in consequence their Fifth Corps lost touch with the Third and Fourth Corps, and was a little later surrounded and imprisoned south of the Lys. Meantime, however, even units which surrendered must have somewhat impeded the enemy's progress, and to that end every moment was precious.

THE BELGIAN SURRENDER

While the allied front to the south shrank, one part in the east now collapsed entirely. During the day the Belgian forces in this direction, endeavouring to preserve a line from Zonebeke (5 miles N.E. of Ypres) through Roulers to Thielt, disintegrated under German air and ground attack. At 1745 hours French and British Missions at Belgian G.Q.G. were informed that King Leopold had requested an armistice as from midnight - news which, by mischance, Lord Gort did not learn until 2300 hours. This brief notice of the Belgian intention, rather than the intention itself, was the main shock, and lent additional urgency to the task of filling the twenty-mile gap thus opened on the left of the B.E.F. between Ypres and the sea. The actual news of the Belgian capitulation can hardly have come as a surprise: for instructions had already been sent to Sir Roger Keyes to warn the Belgians that we intended to evacuate, and reports of an imminent collapse on the Belgian front had been coming in for twenty-four hours. Accordingly dispositions had been planned for our troops which would allow for a Belgian defection: and operation "Dynamo" was, it has been made clear, already under way.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The Belgian - B.E.F. Front.

When the total evacuation of the B.E.F. had been decided upon on May 26th, the reconnaissance requirements of G.H.Q. for May 27th had been given in the following shape - first priority, the enemy movement from the north-east against the Franco-Belgian frontier, and second priority, the enemy movement from the south-west towards the line Le Bassée - Bethune - Aire - St. Omer. Bomber action was requested in the same order.

The early morning Blenheim reconnaissance over the main Belgian - B.E.F. front failed to return, as was not infrequent from this area, but in view of the priority requested by G.H.Q. twelve Blenheims of No.2 Group were despatched to attack enemy troops in the neighbourhood of Courtrai, or failing that the western exits of the town. Fighter escort was provided, and since few German vehicles were seen, the aircraft attacked (at about 0935 hours) exits and road junctions in the neighbourhood. Later in the day, however, a reconnaissance reported, at 1340 hours, about a hundred vehicles with guns moving west from Courtrai towards Menin.

RECONNAISSANCE AND BOMBING OPERATIONS: (b) The Pas de Calais and the Dept. du Nord

On the evening of May 26th the War Office had requested that supplies should be dropped the following morning for the benefit of the besieged garrison in Calais. Accordingly at first light on May 27th twelve Lysanders dropped water

May 27th

supplies successfully into the Citadel. Ammunition supplies were dropped later - at about 1000 hours - by seventeen Lysanders while the Hector flight of No.613 Squadron and nine Fleet Air Arm Swordfish simultaneously bombed gun-posts near Calais to induce the German teams to "keep their heads down". A number of the gun positions were in fact put out of action. Three Lysanders failed to return, and one Hector crashed afterwards at Dover - which was the more regrettable since the garrison they were attempting to revictual had in fact been compelled to surrender the previous evening.

Reconnaissance in the St. Omer area was handicapped by bad visibility early in the day, but at 1115 hours columns were seen moving south-east on St. Omer, and vehicles were reported on the western edge of the nearby forest of Clairmarais. Six Blenheims therefore attacked in this area at about 1432 hours, bombing A.F.Vs and the road from St. Omer to Arques. No fighter escort was provided, since cloud cover was considered adequate. A little later, at 1610 hours, a German headquarters at Belle St. Boullefort was attacked (the probable existence of which had been confirmed by air reconnaissance), together with some nearby tanks, by six further Blenheims, again without fighter escort. As there was no lack of targets in the St. Omer area, eighteen Blenheims then attacked, at about 1845 hours, A.F.Vs and the roads at the southern exits of the town, together with anti-aircraft batteries near Clairmarais. In addition they returned with information about further enemy concentrations in this district. The Blenheims had again operated without fighter escort, but on this occasion, for the first time in the day, two of our bombers failed to return, heavy anti-aircraft fire and Me.109s having both been encountered. A final operation in this area - an "offensive reconnaissance" - was then carried out by six Blenheims, without loss. They attacked, at about 1915 hours, what they took to be a troop train, together with a number of A.F.Vs and M.T. some eight miles north of St. Omer.

During the evening the evacuation at Dunkirk was also given more immediate assistance than that already mentioned. Six Swordfish bombed two enemy batteries near Mardyck, the pilots being convinced in both cases that they had attacked with complete success.

BOMBING OPERATIONS: (c) By night. Aerodromes, dumps and communications.

Most of the night operations, May 27th/28th, were again carried out on a programme concerted with the French. Thirty-six Battles of the A.A.S.F. attacked aerodromes, dumps and rail communications in and near the south-western Ardennes, and a viaduct near Liart was hit. The revictualling yard at Florenville was also set well ablaze, but much of the bombing of remaining targets was done on estimated time of arrival only. Other targets in the Ardennes - the customary Meuse crossings at Givet, Yvoir, Anhee, Dinant and Namur - were sought by ten Hampdens, but only three aircraft claimed to have located their objective. The Wellingtons - thirty-five in number - operated further north, endeavouring to attack movements along roads leading west towards Courtrai, Tournai and Avesnes (twenty-six sorties), and along the roads around St. Omer and Aire (nine sorties). Troop movements, however, were apparently not to be seen, and most of the aircraft attacked points on the roads themselves.

May 27th

A fair proportion of Bomber Command's effort during the night was also devoted to enemy railway communications. The idea was, if possible, to derail moving trains, (and preferably in a cutting), an ambitious task for pilots who usually had great difficulty even in locating a particular stretch of railway. However, the lines between Cologne and Liege were attacked, and also those further south, leading from Coblenz through Luxembourg. Four out of the thirteen Hampdens on this type of work claimed to have attacked railway targets and one to have achieved a derailment. The remaining railway targets attacked were the marshalling yards of the Ruhr (Cologne, Neuss, Essen, Dortmund, Duisburg and Dusseldorf), to which thirty-eight Whitley sorties were devoted - of which twenty-one claimed to have found and bombed their objective. Flushing aerodrome, as before, came in for a good deal of "last resort" bombing: though it was suspected that one Whitley, which entertained doubts that it might be attacking Schiphol in mistake for Flushing, was actually responsible for the bombs which fell that night on the aerodrome at Basingbourne, in Kent.

BOMBING OPERATIONS:

(d) By night. German oil Refineries

Other objectives sought out during the night were the oil refineries at Hamburg, to which eighteen Hampdens were directed. Five pilots claimed to have found and bombed their primary targets.

X X X X X

From the night's work, which involved one hundred and fifty-nine sorties on the part of Bomber Command and the A.A.S.F., all our aircraft returned safely.

FIGHTER OPERATIONS

The most extreme efforts were now being made by Fighter Command to cover the Dunkirk area. During the first half of the day, however, other demands had also to be fulfilled, such as escort to bombers, patrols for the benefit of the Belgian front, and protection for Calais (for it was not known that our garrison there had ceased fire). The patrol line covered in the morning most frequently was Calais - Dunkirk, but from 1450 hours onwards Calais was no longer incorporated, and it became possible to concentrate fighter protection more exclusively for the benefit of the evacuation. The lines now adopted were, primarily, Gravelines - Furnes, and secondarily, a more inland route, Dunkirk - St. Omer, or Furnes - St. Omer.

These various patrol lines were (apparently on direct orders from Air Ministry) covered, as far as the sixteen squadrons engaged on the task could accomplish it, from 0500 to 2130 hours. This meant that nearly all patrols were perforce at no more than squadron strength; the strongest, in fact,

May 27th

apart from a two-squadron patrol over the Belgian front in the morning, consisted of twenty aircraft, and the weakest of nine aircraft. Most squadrons carried out two patrols, and two squadrons - Nos. 19 and 213 - carried out three patrols. Only the Hurricanes were sent over the more inland lines.

These patrols repeatedly encountered hostile forces throughout the day - in general, of a size permitting of combat on not too unequal terms, but on occasion so large that our fighters were considerably outnumbered. At 0900 hours, for instance, eleven aircraft of No. 74 Squadron engaged some ten Do. 17s and twenty Me. 109s near Dunkirk; at about 1330 hours five aircraft of No. 145 Squadron, the other four having left the patrol line early on account of technical trouble, attacked a "rear formation" of twelve Do. 17s, and found themselves in turn attacked by large numbers of Me. 110s: a little later, nine aircraft of No. 601 Squadron engaged ten bombers and twenty fighters: and at 1900 hours, twenty aircraft of Nos. 56 and 610 Squadrons, attacking a single He. 111, observed the bomber fire signals which brought thirty to forty Me. 110s down upon them. Despite these odds, the losses inflicted by our squadrons on the enemy probably greatly exceeded those suffered by themselves. In all, a total of fourteen Spitfires and Hurricanes failed to return from the 287 sorties of the day, while the claims of enemy aircraft definitely destroyed amounted to about eighteen bombers, nineteen fighters and one army co-operation machine, in addition to others probably destroyed and damaged.

To what exact degree our patrols limited enemy air activity in the Dunkirk area it is very difficult to say. We know that Dunkirk port and town received its most serious damage on this day - so much that the authorities there concluded, wrongly as it turned out, that evacuation from the port would be impossible. We also know that attacks were delivered against Dunkirk, or the shipping approaching and leaving it, on at least a dozen occasions - at approximately 0825, 0940, 1009, 1030, 1137, 1235, 1323, 1504, 1616, 1700, 1850, and 2000 hours. One convoy of transports, under destroyer escort, arrived during the big attack of about 1616 hours, and after an hour was ordered back to Dover: but it does not appear that more than two small vessels were sunk by enemy air action during the day and the following night. All that can be said is thus that, on May 27th, Dunkirk was severely and repeatedly bombed: that evacuation arrangements were most adversely affected: and that our fighters, successful as they were in inflicting greater losses than they suffered, were unable to prevent these occurrences.

During the night, Blenheims of No. 604 Squadron kept up a patrol, by single aircraft, over the Dunkirk area.

MAY 28th

THE WITHDRAWAL AND THE EVACUATION

Throughout May 28th the withdrawal on Dunkirk and the evacuation continued. The difficulty of co-ordination with the French was now more than ever apparent, for while General Blanchard had agreed to retire north of the Lys, he had received no authorisation from superior authority either to withdraw to the Dunkirk perimeter, or to participate in any scheme of evacuation. Lord Gort's arguments in the morning could not move him; but the expressed British determination to withdraw that night, with or without the French, as far as a line Cassel - Poperinghe - Ypres was a difficult move to resist. In the evening, therefore, the French decided that, while General Prioux with the 4th Corps of the First Army remained on the southern flank, General de la Laurencie with the 3rd Corps and the Cavalry Corps should retire north to arrive within the Dunkirk perimeter on May 30th.

The progress of the actual evacuation on May 28th was slow. Beach discipline was as yet inadequately organised, the military had little knowledge of handling boats, too few small craft were available, and a surf during most of the day made the task doubly difficult. In view of the air attack and shelling on the previous day, use was not made of the port until night, though in fact German bombing proved to be considerably less severe than on May 27th. The arrival of leading enemy elements at Nieuport, however, endangered the most easterly beach (La Panne), and by May 29th enabled German batteries to open fire on the Zuydecoote Pass, a vital stretch of the 'long' route from Dover to Dunkirk.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The Pas de Calais and the Dept. du Nord

The military appreciation current in the early hours of May 28th was that the two main enemy threats were eastwards from the St. Omer area towards Wormhoudt, and westwards from Courtrai towards Ypres. Of these the former, in contrast to the previous day, was now considered the more threatening, and air action at first light by a limited number of bombers was therefore suggested against targets west of a line Watten - St. Omer - Aire. Other bombers were to be held back and directed in accordance with the results of reconnaissance.

At first light six Blenheims took off under fighter escort, in accordance with this programme, to seek targets in the first priority area. Fifty A.F.V.'s were seen, and there was some M.T. movement: most of the bombs, however, were aimed at the roads about St. Omer.

Other attacks in the St. Omer - Clairmarais area, after reconnaissance had discovered important movements, were delivered by seven of nine Blenheims, at about 1325 hours: by eight of nine Blenheims at about 1610 hours: and by eleven of fifteen Blenheims at about 2027 hours. These operations were directed against the columns moving north from Aire through St. Omer and Cassel on Bergues: and each formation was able to bring back significant

/details

MAY 28th.

details of the enemy's progress towards Dunkirk.

RECONNAISSANCE AND BOMBING OPERATIONS. (b) West of Courtrai.

The secondary area - that of the pressure west from Courtrai - was reconnoitred effectively at about 07:00 hours, when considerable enemy movement, including gun columns, was seen. Nine Blenheims were therefore ordered to attack this, but when they arrived, at about 12:45 hours, they were unable to discover any movement of significance, and therefore bombed the roads in the neighbourhood.

x x x x x

During the afternoon the weather became worse, and between 1600 and 2000 hours no reconnaissance was possible. In all twenty-one reconnaissance sorties were flown during the day, from which one aircraft was lost. Of the forty-eight Blenheim bomber sorties during the day, only one failed to return.

BOMBING OPERATIONS: (c) By night. German communications in France and Belgium.

The night programme, May 28th/29th, was carried out partly on targets given by A.O.C.-in-C., B.A.F.F., partly on those given by Back Component. Under the former category, A.A.S.F. Battles were ordered to attack the Meuse crossings at Givet, and the railway yards at Libramont and Charleville. On account of bad weather, however, only thirteen aircraft actually took off, and of these only six reached their target areas. No precise location of targets was possible, and no results were observed. Bomber Command, on request from B.A.F.F., also attacked Givet, through which the enemy was bringing up much of his fuel, and three other important points (Guise, Hirson and Avesnes) on the German reinforcement route. Fourteen Whitley sorties were devoted to this task.

The major part of the night's effort by Bomber Command, however, was put on to the German communications in close proximity to the northern battlefront. This was done at the request of Back Component, for B.A.F.F. was now "out of the picture" as regards the north, following the departure to England of No. 3 Air Mission. Thirty-four Wellingtons were detailed "to disorganise and interfere with movements of the enemy, to prevent activity and rest, and if possible to create blocks", at St. Omer, Aire, Roulers and Menin. Sixteen of the aircraft, however, failed to deliver an attack, on account of low cloud. The remainder reported that they had inflicted damage on road communications in the towns, which were already well ablaze. Again no aircraft was lost during the night.

FIGHTER OPERATIONS:

The motif of the day's work was set in the early hours by a signal from C.A.S. to the heads of the home operational
/commands:

²² Most of the personnel of this extremely successful Mission were unfortunately lost at sea when the "S.S. Aboukir" was sunk during the night May 27/28, about 8 miles off Dunkirk.

MAY 28th.

X259
A.M. to
F.C., C.C.,
etc. 0125/
28th May.

X268
A.M. to
F.C. rep.
B.C. 0205/
28th May.

commands: "Today is likely to be the most critical day ever experienced by the British Army. The extreme gravity of the situation should be explained to all units. I am confident that all ranks will appreciate that it is the duty of the R.A.F. to make their greatest effort today to assist their comrades of both the Army and the Navy". In this spirit, Fighter Command was instructed to....."ensure the protection of Dunkirk beaches (three miles on either side) from first light until darkness by continuous fighter patrols in strength", and, in addition, to "have due regard to the protection of bomber sorties and the provision of support in the B.E.F. area." Coastal Command, in addition to flying repeated patrols for the rest of the execution period to give warning of enemy surface craft, was now also charged with maintaining a continuous daylight patrol North Goodwins - Gravelines - Ostend. This was carried out until the termination of the evacuation, usually by three aircraft at a time, drawn from Blenheim fighters (Squadrons No. 235 and 248), Hudsons, (Nos. 206 and 220) and Fleet Air Arm Skuas and Rocs (Nos. 801 and 806).

It will be seen that Fighter Command was required to meet, so far as was practicable with the available forces and bases, two virtually conflicting requirements over Dunkirk - continuity and strength. To achieve this, all Fighter Command patrols, except an escort in the early morning to Blenheims operating near St. Omer, were concentrated over the Dunkirk area, at an average strength of two squadrons, as opposed to the average strength of rather over one squadron the previous day. This meant that rather fewer patrols were flown, and that there were short intervals during which the area was not covered at all, but in general the patrols still aimed at securing an evenly spaced effort from dawn to dusk. About three hundred and twenty-one sorties in all were flown by Fighter Command aircraft on the continental patrols during the day - a record to that date - and, of the eighteen squadrons concerned, four (Nos. 213, 229, 242 and 616) operated three times, and most of the rest twice.

During the early morning, our patrols encountered only small forces of the enemy, but two big formations were met with between 1000 and 1230 hours. At about 1000 hours some forty Me.109s were engaged, while at 1040 hours a very big mixed formation was encountered, the largest estimate of which amounted to no less than 150 fighters and bombers. At 1215, again, German fighters in strength were encountered, but during the whole of the afternoon and evening there were no combats at all. For this, the weather was perhaps partly responsible, since one of our own patrols (1545 - 1705 hours) was abandoned for this reason. In all, the day's combats resulted in claims of nineteen Me.109s and four bombers definitely destroyed (plus other "probables") for a loss to ourselves of thirteen fighters.

Whatever the respective importance of the weather, the R.A.F., and other factors in securing this result, it appears certain that Dunkirk, and its neighbourhood, was not so severely attacked by enemy air forces during the day, though six vessels of various kinds were sunk, and a destroyer was damaged. A signal from S.N.O. Dunkirk to V.A. Dover at 2245 hours ran thus: "fighter protection has been invaluable, and.....bombing only sporadic."

MAY 29th

THE WITHDRAWAL TO THE PERIMETER: THE EVACUATION

MILITARY SUMMARY

By the close of May 29th the southern flank had crumbled still further, for the French First Army Headquarters, and their 4th Corps, left on the Lys, had surrendered to the enemy. Of the First Army only the 3rd Corps and the Cavalry Corps now remained, and the advanced elements of these were now pouring into the Dunkirk perimeter. As they came they increased the already formidable problem of congestion, entering by unassigned roads, and gathering on the beaches in anticipation of an evacuation which their commanders had not yet ordered. Nor was collaboration with the French facilitated by the fact that Admiral Abrial, the supreme authority at Dunkirk, had not been informed by his government that the British intention was nothing less than complete evacuation. One goal, however, had been safely achieved - the B.E.F. was now inside the perimeter. It therefore remained to hold this, if possible, and then to thin it out until complete evacuation could be accomplished. Towards this desirable end May 29th saw considerably more progress. The new middle route from Dover to Dunkirk had now been swept, and destroyers and personnel vessels were again directed to the port by day. But as against this, air attack was severe, and a report (inaccurate, as it turned out) that the harbour was blocked resulted in a decision that ships should not enter that night. A good opportunity to move large numbers in comparative safety was thus lost, but in spite of this the general pace of the evacuation was quickening.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) East of Dunkirk, and in the Pas de Calais and the Dept. du Nord.

Reconnaissance - 28 sorties for the loss of one Lysander - was again carried out over both flanks of the B.E.F., largely with the object of locating suitable targets for bombers. Bad weather greatly restricted observation during the day, while in the easterly area it proved very difficult to distinguish between allied and enemy columns. The general trend of German movement was, however, clearly reported, and various targets were suggested for bombing.

The operations by the Blenheims of No.2 Group began at first light with offensive reconnaissances by two formations of nine aircraft, one over the area of the threat to the B.E.F. from the east (Ostend - Thourout - Roulers - Dixmude - Nieuport), and the other over the area of the threat from the south and south-west (Watten - Ochtezeele - Aire - St. Omer). The former area was covered by low cloud, and only two of the nine aircraft saw anything worth bombing. Over the south-westerly area seven Blenheims attacked railways and roads in default of visible troop movements.

Four subsequent attacks during the day were delivered, of which three were directed against the easterly area, and the other against the south-western. In the easterly area nine Blenheims found and attacked a large number of A.F.Vs and M.T. near Pervyse, on the Dixmude - Furnes road, at about 1115 hours, but a later formation of similar composition, directed to the same locality, was unable to find the column (at 1420 hours) and attacked M.T. further east, at Ichteghem, near Thourout. A final attack in this area was delivered at about 1930 hours by nine Blenheims against enemy vehicles between Thourout and Dixmude.

May 29th

They reported visible signs of the previous raid in the form of blazing lorries and piled up vehicles at Ichteghem. In the south and western area six Blenheims, ordered to attack movements flowing north from St. Omér at 1400 hours, were unable at 1650 hours to find any movement between here and Broxoele (the most northerly point permitted for bombing), and therefore attacked the Forêt d'Eperlecques, a harbouring-place for enemy vehicles near Watten. No Blenheims were lost during the day's bombing operations.

In addition to the operations by No.2 Group, ten Swordfish of No.85 Squadron, in response to a request to Coastal Command from Back Component, sought out a battery reported by reconnaissance to be shelling Dunkirk pier from a position south-west of Bruges. The Swordfish were unable to find the battery, and in addition ran into heavy anti-aircraft fire on either side of Dunkirk. Five of them failed to return. Other bombing activity by Coastal Command aircraft designed to assist the evacuation included the operations projected against transport and auxiliaries in Helder docks, and against German M.T.Bs. both at sea and in IJmuiden harbour. No ships were seen in Helder docks, however, nor were any M.T.Bs. discovered. Other shipping in IJmuiden harbour was successfully attacked.

May 29th

BOMBING OPERATIONS: (b) By night. Communications at Charleville and behind Dunkirk.

Entry of
1109 hours
North
B.A.F.F.
Telephone
Log
29/5/40

Very little bombing was carried out during the night May 29th/30th. The weather had been cloudy in the afternoon over the northern area, the moon phase was now unfavourable, and A.O.C.-in-C., Bomber Command emphasised during the day to A.O.C.-in-C., B.A.F.F. the difficulty which his aircraft had in finding road targets on dark nights. The A.A.S.F. was compelled to cancel most of its programme on account of the weather: of the eight or nine Battles which did take off, most reached their target area, and attacked communications at Charleville, but few results were observed. From British bases only a few Wellingtons operated, attacking, as on the previous night, St. Omer, Aire, Roulers, and Thourout. Of the fifteen Wellingtons involved, three aircraft failed to regain their home bases, and one crashed on landing.

FIGHTER OPERATIONS:

X432 F.C.
from A.M.
2015/
28th May

The policy of continuous patrols by Fighter Command aircraft adopted on May 27th, and slightly modified on May 28th, was departed from still further on May 29th. The odds which our squadrons had encountered had led to this necessity: and a virtual permission to operate stronger patrols, rather less frequently, was given to Fighter Command in the following terms: "Your object tomorrow (May 29th) should be the same as that defined in X268/28th. The method of achieving this object is left to your discretion."

From this day onwards, therefore, Fighter Command patrols were so arranged that up to four squadrons (though often in two separate formations) were on the Dunkirk patrol line at roughly the same time. It was rarely possible, however, to muster a full forty-eight aircraft for these sweeps. The greatest number of aircraft on any one patrol on May 29th proved to be forty-four: the smallest number, twenty-five. Aircraft from sixteen squadrons operated: and all patrols were concentrated within a radius of ten miles of Dunkirk, except for a Hurricane patrol at midday covering a line Dunkirk - Furnes - Cassel. This resulted in the Dunkirk area being covered during the day at about the following times - 0440-0610: 0720-0925: 1030-1200: 1300-1400: 1450-1620: 1700-1800: 1930-2030: and 2000-2110. In addition, small patrols of Coastal Command aircraft continued to cover the line - North Goodwins - Gravelines - Ostend throughout the day.

Document
No.7
29/5/40

During the morning there appear to have been two or three small-scale attacks on the shipping at Dunkirk, but no major assault, and no interceptions were reported by our patrols. All three aircraft of one of the Coastal Command patrols, however, were intercepted and shot down by Me.109s at about 1130 hours. At about 1200 hours the destroyer 'Grenade' reported that twenty enemy aircraft were bombing Dunkirk; and it must be concluded that these appeared just when one of our main patrols had turned for home. It was in this attack that the destroyer 'Excellent' was damaged from a near miss. The next attack took place before 1400 hours, when S.N.O. Dunkirk signalled to Vice-Admiral, Dover, that the bombing of the beaches and of Dunkirk pier had now commenced without fighter opposition, and that every effort must be made to protect the pier from damage. This attack occurred while Hurricanes were sweeping inland to Cassel: and No.17 Squadron, on this patrol, reported that it had engaged six Me.110s and twenty-five Do.215s.

Document
No.9
29/5/40

/From

May 29th

Documents

Nos. 10, 11, 12
29/5/40

From the vessels off-shore there then came a series of signals, between 1545 and 1555 hours, to the effect that the anchorages at Bray and La Panne were being bombed. These attacks seem to have begun at about 1430, and to have developed into a crescendo between 1545 and 1600 hours. They began at a time when none of our aircraft were on the line, but our patrol then appeared, and the four squadrons were soon hotly engaged. No. 213 (Hurricane) and No. 264 (Defiant) in rear, had been detailed to concentrate on enemy bombers, while Nos. 56 and 151 acted as above guard, with the duty of warding off fighters. The largest estimate given by the squadrons was that about eighty enemy aircraft (He.111s, Ju.87s, Me.109s and Me.110s) were encountered, and the time of the combat appears to have been at about 1530 hours, or just before the main bombing. Of the above guard, No. 151 squadron fought only with fighters, but No. 56 Squadron engaged Ju.87s as well: of the lower formation, No. 213 Squadron fought with both fighters and bombers, but the Defiants were largely engaged against fighters alone, since they found themselves attacked by six Me.109s and about twenty Me.110s. The Defiants claimed to have shot down, without loss, no less than fifteen enemy fighters and a Ju.87. Though the severity of the attack must have been mitigated by the presence of our fighters, the shipping at Dunkirk and off Bray and La Panne was certainly severely bombed. Two destroyers were hit, and several vessels were sunk, including one (a trawler) in the fairway.

Document

No. 13
29/5/40

At 1630 hours a renewed spell of Luftwaffe activity began, again when none of our fighters was on the line, and at 1707 hours a fresh distress call was reported, when the Captain of 'D.20' signalled "fighters essential: continuous bombing". Our fighters were now reaching the Dunkirk area. One of the Spitfire squadrons (No. 64) was apparently attacked at once from above and behind by Me.109s (at 1715 hours): while the other (No. 610) was in combat with enemy fighters at 1740 hours. The two Hurricane squadrons (Nos. 229 and 242) who had lost touch with their Spitfire guard, were also attacked as they approached Dunkirk (at 1710 hours) by large numbers of Me.109s. None of our squadrons encountered enemy bombers, and the attacks on our shipping between 1630 and 1745 hours (resulting, amongst other casualties, in the 'Crested Eagle' being hit and beached off Bray) can thus not have been interfered with by our patrols. Three Skuas under Coastal Command, however, succeeded in engaging five Ju 88s found bombing a convoy north east of Ostend at 1710 hours, and in shooting down one and damaging another.

Sporadic attacks now continued, and then, to judge from a new series of bombing reports transmitted by the vessels off Dunkirk between 1919 and 1955 hours, a fresh main assault began. During these attacks our patrol came up, and the four squadrons delivered attacks on the enemy bombers, dive-bombers and fighters. The Defiant squadron (No. 264) again made very large claims, amounting to eighteen J.87s and one Ju.88 definitely destroyed. This patrol must certainly have impeded the enemy attacks on

/our

May 29th

our ships, though it did not forestall them entirely. A final patrol after this encountered no enemy aircraft, except an odd Me.109.

It thus appears that between 1200 and 2000 hours the enemy made more or less continuous attempts to bomb our shipping off Dunkirk, and that at least five of these could be described as major attacks. On two of these five occasions the attacking force met no opposition from our fighters: on the remaining three, the attacking force was intercepted once before, once during, and once after the main attack. The total effect of all this on the evacuation appears in the various records in a somewhat contradictory form. On the one hand, it is clear that about eight vessels, including three personnel ships, were lost from air attack: that Dunkirk harbour was momentarily regarded as blocked: that the Admiralty considered the scale of attack too great to warrant the further use of the H. I. and J. class destroyers in the evacuation: and that V.A. Dover from the reports received, was led, in the evening, to order ships not to close the harbour. On the other hand, it is equally clear that important losses (including the destroyers 'Gregson' and 'Wakeful', and the damlayer 'Comfort') occurred from other reasons than air attack, notably M.T.B. action and the ramming and firing of our own vessels: that the harbour was not, in fact, blocked, so that, if our vessels had closed during the night, when attacks were few, they could have lifted large numbers of men: that the War Office could state, at 1920 hours - "little bombing today": and that V.A. Dover could signal Fighter Command - "Reports from S.N.O. state your assistance has been invaluable. I am most grateful for your splendid co-operation. It alone has given us a chance of success....."

Document
No.16
29/5/40

Document
No.14
29/5/40

MAY 30TH

THE EVACUATION

On May 29th the increasing tempo of evacuation was maintained, aided in the morning by low cloud, mist and smoke. While heavy pressure on the perimeter developed at Bergues, Furnes and Nieuport (where an important bridge had not been blown) the organisation on the beaches improved. The cutting adrift of boats by soldiers detailed to return with them to the beach was now being checked, and the arrival of small power craft from England enabled many of the drifting boats to be recaptured. The construction of a pier of lorries by the military at Bray accelerated the painfully slow process of launching from the beaches, but it was apparent that only a big effort from the port itself could solve the problem. The S.N.O. afloat off Dunkirk (Rear-Admiral Wake-Walker) urged that ships should be sent to the port rather than to stand off the beaches, but contrary advice from other quarters, coupled with the fear of air attack on a concentrated mass of shipping, made it difficult for Rear-Admiral, Dover to accept this suggestion in toto. Air attack was less severe on this day, and by the end of the day it was possible to forecast that the evacuation of the B.E.F. would be completed during the night 31st May/1st June.

Rear-Admiral
Wake-Walker's
report

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The approaches to Dunkirk

Reconnaissance on May 30th was again handicapped, as on the previous day, by low cloud, and little of significance was reported during the morning or afternoon. During the early evening details were brought in, by Back Component reconnaissance sorties and by the returning bombers of No.2 Group, of the enemy's movements on Nieuport and Furnes from the east and south-east. No successful reconnaissance, however, was carried out south of a line Roulers - Furnes. The progress of inundations in the Dunkirk area was traced by a Lysander sortie, which dropped a marked map giving details to G.H.Q.

The bombing programme for the day seems to have originated neither in the results of air reconnaissance, nor in a direct request from the War Office, but in a request from Vice Admiral, Dover, passed to Back Component via the Admiralty at 0705 hours. Vice Admiral, Dover, feared that the enemy's progress from the east might now bring his troops on to the B.E.F. beaches before the end of the day, and accordingly urged that every effort should be made to hold up this line of advance. A.O.C.-in-C, Bomber Command therefore agreed to attack the road junctions and entrances at Dixmude and Nieuport, and at about 1030 hours eleven Blenheims duly arrived over this area. They found the cloud so low and heavy, however, that they were compelled to abandon their task.

During the afternoon the weather improved somewhat, and attacks were planned to coincide with general fighter cover over the area from 1635 to 1735 hours. Between these times forty-eight Blenheims were despatched with the primary object of attacking A.F.Vs and M.T. on the roads east and south-east of Nieuport: about half of them discovered vehicles to attack, and the remainder bombed suitable points on the roads themselves. In the evening a general northerly movement was reported in the area south of Bergues, and nine Blenheims were despatched to attack vehicles near Soex. Only three, however, found anything on wheels to attack.

May 30TH

The day's bombing, if disappointing in the absence of outstanding targets, was at least effected cheaply, for from the sixty-eight Blenheim sorties no aircraft was lost.

BOMBING OPERATIONS: (b) Revised bombing directive

Document
No. 34
30/5/40

During the day of May 30th a new bombing directive was issued by Air Ministry. The medium bombers of No. 2 Group, it was stated, had been employed thus far at an intensive rate of operations, and with a high degree of wastage: and it was therefore considered necessary for them to operate for a period on a reduced scale of effort while the squadrons assimilated their new crews and refitted. They would continue to be employed primarily in support of the land operations. The use of the 'heavy' bomber force, however, was to be reviewed in the light not only of conserving their effort, but of the passing of the moon period. Experience had shown, it was stated, that in the absence of moonlight the heavy bombers could not operate with sufficient accuracy against road objectives and defiles in the forward area to make an effective contribution to the land situation by this means. In addition, the more important road defiles were now so heavily defended with searchlights as to make precision bombing impossible. Attacks on railway objectives, moving trains and marshalling yards were, however, considered to be effective, particularly on clear nights, and it was laid down that some proportion of the 'heavy' effort should continue to be put on to these objectives, in accordance with the requirements of the French High Command, as concerted at B.A.F.F. Headquarters.

The remaining effort of the heavies at sustained rates, was now to be transferred to industrial targets in Germany, in accordance with a modified form of Plan W.A.8 ("The attack of Germany by night"). The object of the operations was defined as being the continuous interruption and dislocation of industry, particularly in those areas within range where the German aircraft industry was concentrated - i.e. the Hamburg, Bremen, Ruhr, and Frankfort areas: while the actual objectives for attack were to be at the discretion of A.O.C.-in-C., Bomber Command, and largely dependent upon the possibility of their being easily identified at night. It was, however, to be understood that "in the event of a further critical situation arising in the land battle" the whole available effort of the air striking force would again be placed in support of A.O.C.-in-C., B.A.F.F. - i.e. for operations at closer range to the land battle, and calculated to affect it more immediately.

BOMBING OPERATIONS: (c) By night. The approaches to Dunkirk

The issue of the new directive did not coincide with its immediate application, for on the night May 30th/31st road objectives in the forward area were again attacked by some of the 'heavies'. Twenty-eight Wellingtons endeavoured, on Back Component's programme, to create road blocks and to interfere with enemy movement at the main towns through which the Germans were pressing towards the B.E.F. - Cassel, Hazebrouck, Thourout, Roulers, Ypres and Dixmunde. Eleven of these aircraft failed to locate their targets, owing to adverse weather, and one was lost. Adverse weather also impeded the operations of the A.A.S.F., which had been projected against railway /communications

May 30th

communications at Conz and Charleville. Most of the programme was cancelled, and only one aircraft actually delivered an attack.

BOMBING OPERATIONS: (d) By night. Oil at Hamburg.

The remaining effort of the night was devoted to the oil refineries at Hamburg, which, on account of their proximity to water, were considered to be reasonably identifiable. In fact, however, cloud prevented twelve of the eighteen Hampdens concerned from locating their target: and the six which actually released their bombs did so on estimated time of arrival only, or because the density of searchlights and anti-aircraft fire seemed to indicate that they were over the right spot. All the Hampdens returned safely.

FIGHTER OPERATIONS:

In pursuance of the method adopted the previous day, patrols were again carried out by Fighter Command at three - or four-squadron strength, the largest number of aircraft on the line at any one time being forty-four, and the smallest twenty-six. Sixteen squadrons again operated, the total number of sorties amounting to two hundred and sixty-five. No cover was supplied over the Dunkirk area before about 0600 hours, or during the approximate hours 0710-0900, 1000-1145, 1340-1500, 1610-1630, 1735-1840, except by the small Coastal Command patrols, who operated, as before, throughout the day along the line North Goodwin - Gravelines - Ostend. By night the patrol over Dunkirk by single Blenheims of No. 604 Squadron continued.

The governing factor of the air operations over Dunkirk on May 30th was undoubtedly the weather, though one naval source considered (generously, if a trifle cautiously) that "the sound of fighters overhead seemed to account for our freedom from air attack". Intercepts had indicated that three Geschwader, with fighter escort, were intended to attack the shipping throughout the day, but visibility was very poor in the morning, and our shipping was not interfered with. At 1050 hours 10/10ths cloud between 300 and 3,000 feet was reported over the French coast, with visibility at 3,000 feet down to a hundred yards. During the afternoon the clouds lifted a little and North B.A.F.F., reporting an intercept obtained by the French, stated that the Germans had found the weather too bad to do anything that morning, but would probably now begin their bombing programme. At 1800 hours the weather report was of mist over the Channel, and visibility three to five miles: while over the coast, the mist thickened towards the east, with dense cloud over Nieuport at 4,000 feet, and inland visibility one to three miles.

It was not surprising, in these conditions, that our patrols met no enemy aircraft throughout the day, except for two single bombers which were prevented from attacking ships by the intervention of Coastal Command aircraft. The reports of enemy bombing from our ships were few in number. At 1542 'Vanquisher' reported bombing off Dunkirk, while from 1900 hours onwards small scale attacks were made off La Panne. The net result of enemy air attacks appears to have been damage to two destroyers, and the foundering of an armed boarding vessel. The modern destroyers, withdrawn by the Admiralty the previous day, were now permitted to return, and all factors thus combined to double the rate of evacuation as compared with May 29th.

Rear-
Admiral
Wake-
Walker's
report
Page 14.

MAY 30TH

It thus became possible to hope that the evacuation of the B.E.F. could now be completed by 0300 hours on June 1st: though S.N.O. Afloat off Dunkirk (Rear-Admiral Wake-Walker) was insistent that the success of the evacuation would depend essentially on the major clearance being from Dunkirk itself, rather than from the beaches.

MAY 31st

THE EVACUATION

May 31st saw a new problem presented. It had now been decided by the Cabinet that French and British should henceforth be taken off in approximately equal numbers, and the evacuation proceeded on this basis. Artillery fire at one end of the town, and at the other on the beaches at La Panne and Bray, became an increasing hindrance, and boats which put in to the beaches sometimes failed to find troops who had moved further west to seek cover. The R.A.F. was accordingly called upon to seek out and bomb the batteries. In the evening motor-yachts and boat-tows arrived in considerable numbers: and Lord Gort, who had been ordered to hand over his command when his forces were suitably reduced, was taken off with his staff. General Alexander assumed control of the reduced B.E.F., and it was agreed that the French should continue to hold the western half of the perimeter to Bergues, while the B.E.F. should hold from Bergues to Les Mocurs. This brought the eastern side of the perimeter back to the fortified Franco-Belgian frontier, and was thus of some advantage, though the beaches at La Panne would be lost.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The approaches to Dunkirk

Reconnaissance during the day - 29 sorties - was devoted to finding suitable targets for our bombers, and to locating enemy batteries shelling Dunkirk. Batteries near Nieuport, Furnes and Bergues were pinpointed for subsequent bombing, while several columns were discovered moving towards the latter towns.

The bomber operations began with a sweep by eight Blenheims over the roads leading to Nieuport and Furnes from the east and south-east. Enemy columns were found and attacked at about 0520 hours. At 0950 hours twelve Blenheims then found and bombed columns on one of the same roads, that from Ypres to Furnes. Enemy troops were again found and attacked by twelve Blenheims along these roads at 1300 hours. At 1425 hours, as a result of a reconnaissance some ninety minutes earlier which had reported M.T. heading towards Cassel, the threat to the B.E.F. from the south was then attacked, nine Blenheims finding profitable targets just north of Wormhoudt.

Later, in response to a special message from C-in-C., B.E.F., attention was switched back to the east, close in to the B.E.F. at Nieuport: six of ten Albacores, sent to attack the Westende road junctions, succeeded in doing so at 1607 hours, and in bombing lorries. Then, at 1625 hours, eighteen Blenheims attacked the bridges south and south-east of Nieuport, scoring hits, straddles and near misses: at 1837 hours six Blenheims attacked bridges near Nieuport, unsuccessfully, but claimed a hit on a pontoon under construction over the Nieuport - Furnes canal, as well as other objectives in the vicinity: and at 1955 hours six out of nine ~~Shuas~~, failing to find pontoons over this canal, attacked a reinforced pier on a small island in the canal north-east of Nieuport.

The bombers engaged on these operations did not observe enemy troop movements at all comparable in extent to those

May 31st

31/5/40
Document
No.40

seen approaching Bergues and Furnes, and it was the opinion at Back Component that effort would have been better directed against this latter series of objectives. Nevertheless, the bombers were possibly securing a greater effect than they were aware of. It has been mentioned that at 1607 hours six Albacores bombed the roads about Westende, and that at 1625 hours eighteen Blenheims attacked the bridges at Nieuport. These operations were referred to in the following terms by the commander of the 12th Infantry Brigade, holding the left sector between Nieuport and the sea: "On the afternoon of May 31st, this Brigade was holding a sector from opposite Nieuport to the sea. Between 1500 and 1700 hours a determined attack was launched upon our front - the third within a period of twelve hours. The leading German waves were stopped by our L.M.G. and mortar fire, but strong enemy reserves were observed moving through Nieuport and on the roads to the canal north-west of Nieuport. At this moment some R.A.F. bombers arrived and bombed Nieuport and the roads north-west of it. The effect was instantaneous and decisive - all movement of enemy reserves stopped: many of the forward German troops turned and fled, suffering severely from the fire of our machine guns. I cannot state the type of bomber which appeared - five aircraft were counted".

BOMBING OPERATIONS: (a) By night. Communications in the Rhine, Ardennes, Meuse and Dunkirk areas.

By night, the A.A.S.F. continued to attack communications and supply lines on the Rhine (Bingen and Rudesheim) and through the Ardennes and Meuse. Weather was again unfavourable: none of the thirty-three sorties was lost, but several failed to locate their targets, and bombed on estimated time of arrival only. Bomber Command's effort was on a smaller scale than usual, and, in spite of the directive of May 30th, attack was exclusively directed against forward targets. Thirty Wellingtons, of which two were lost, operated against road objectives around Nieuport and Soex, the main points of enemy pressure on Dunkirk from the east and south respectively.

FIGHTER OPERATIONS

Fighters along the Dunkirk line operated in the same fashion as on May 30th, at an average strength of three to four squadrons. Eight patrols in all were flown, and these involved 289 sorties from sixteen squadrons. Considerable though this effort was, there were perforce several periods in the day when the Dunkirk area was not covered - notably between 0620-0800, 0830-1110, 1510-1615, and 1745-1915 hours.

31/5/40
X821
A.M. to
Back
Component

After early morning haze, May 31st cleared into a fine day, and a resumption of Luftwaffe activity against the evacuation was therefore to be expected. At 0930 Air Ministry passed to Back Component an intercept indicating that the enemy air force had been ordered not to attack the town or harbour of Dunkirk, but to concentrate attacks on shipping at sea, or leaving the coast.

The first attacks reported by our shipping off Dunkirk occurred between 0510 and 0610 hours, when one of our patrols was on the line. These were probably an affair of isolated aircraft: and one or two bombers, and a fighter, were engaged by our Spitfires. The next patrol was uneventful, but between this and the third patrol one of our vessels ('The Golden Eagle')

May 31st

was attacked. Reports then occur of attacks on ships at 1135 and 1230 hours, but our patrol at the time sighted only one enemy aircraft.

Enemy Raids were again reported from ships at about 1300 hours, when a Hurricane patrol was on the line. This patrol sighted no bombers, though it intervened usefully to protect some Blenheims from the attentions of a formation of Me.109s. No major attack on our shipping, however, appears to have occurred until about 1415 - 1430 hours - a time when a patrol was again over the Dunkirk area. Strangely enough, of the four squadrons composing the patrol, one (No.111) encountered no enemy aircraft: a second (No.609) found three He.111s; the third (No.264) engaged a large formation of fighters: but the fourth (No.213) estimated the forces it encountered at nothing less than a hundred aircraft (bombers and fighters). In the resulting combats five Hurricanes, three Defiants and a Spitfire were lost for claims which totalled six Me.109s and one He.113. This air battle was witnessed by the S.N.O. afloat off Dunkirk who observed that "it seemed to go against us".

Attacks then appear to have followed at about half-hourly intervals between 1530 and 1730 hours, though in what strength is not reported, save that at 1717 hours 'Ivanhoe' and 'Whitehall' were attacked by a force estimated at fifty bombers. Our patrol, which was over the area from about 1630 to 1745 hours, encountered many enemy aircraft in mixed formations, the largest appearing to be a group of about thirty. In this series of combats three Spitfires and two Hurricanes were lost, for claims of two Me.109s, five Me.110s, three Ju.88s and two Do's definitely destroyed. One of the patrolling squadrons on this occasion was also detailed to shoot down an enemy observation balloon over Nieuport, which had been directing artillery fire on to the beaches. The Squadron was unable to find the balloon, which, in the words of S.N.O. afloat, was "at times hauled down but always reappeared".

At 1800 hours, when Lord Gort was due to embark, air attacks were again reported, and were continued from about 1850 to 1930 hours. Our patrol, which took off between 1840 and 1855 hours must have come up during this latter series, and between 1920 and 1930 hours was engaged with a formation of about seventy He.111s and Me.109s. The patrol on this occasion found itself at a disadvantage for height, for the top guard Spitfire squadron, covering a Defiant and a Hurricane squadron 3,000 feet below, was at no more than 10,000 feet, and was forced to waste time in climbing to attack. In the result, for the loss of two Defiants and one Spitfire, claims were made of ten bombers and six fighters definitely destroyed. Some of the Hurricane pilots complained on their return that they had been shot at by the Spitfires.

A final series of attacks was reported from the ships off Dunkirk between 2000 and 2030 hours. Our last patrol of the day, which was over the area at the time, did not, however, report any combats, with the exception of a flight of No.242 Squadron. These six Hurricanes, trying to locate the obstinate observation balloon at Nieuport, engaged about thirty Me.109s at 2010 hours, but no bombers were intercepted.

May 31st

In addition to the Fighter Command patrols, Hudsons, Blenheim fighters, Skuas and Rocs under Coastal Command patrolled the line, North Goodwins - Gravelines - Ostend throughout the day. These patrols were at a strength of one section, and occupied in all thirty-seven sorties. Other patrols were flown by Coastal Command to give warning of attacks on our shipping by enemy surface vessels and submarines.

The frequent air attacks mentioned in the ships' logs throughout the day, must it appears, have been delivered by isolated aircraft, or by very small formations. The major attacks appear to have been ~~three~~ in number, and to have taken place at 1415-1500, 1700-1715, and 1900-1930 hours. On each of these occasions our patrols, while not entirely preventing the attacks, engaged enemy formations which must have been concerned in them, and undoubtedly mitigated the effects of the enemy bombing. No great losses were incurred by our ships, for only one vessel was sunk and two damaged (minesweepers in each case) by direct air attack. Congestion of shipping appears, in fact, to have been on this day almost as formidable an enemy as the Luftwaffe, for no less than six destroyers were damaged in collisions.

JUNE 1STTHE EVACUATION

By June 1st the perimeter was shrinking fast, but the enemy advance was checked along the line Bergues - Uxem - Ghyselde east to the fortified frontier, and thence along that to the sea. The newly swept central route from Dover, however, came under artillery fire, and this fact, added to the weight of air attack on this day was responsible for the decision taken in the evening to evacuate henceforth only by night. Thus the termination of the evacuation was further postponed, and the most extreme demands had to be made on the endurance of those who were devotedly bringing off the allied troops to safety. The night June 1st/2nd saw good progress, however; personnel ships closed the harbour, while sloops, minesweepers, destroyers and tugs anchored off the beaches, to be filled by the ferry service of boats. Moreover, the concentration of evacuation into a period roughly between nine o'clock on one evening and three o'clock the next morning enabled R.A.F. fighter cover to be provided at maximum strength at decisive times - dusk and dawn periods during which shipping was approaching and leaving.

Admiral
Ramsay's
report

During the phase of the evacuation that ended at midnight on June 1st - i.e. the period during which evacuation was both by night and by day, as opposed to the "night only" policy now to be pursued - 229,721 allied troops disembarked on British soil. Of the number, 59,162 were French, the remainder British, whose numbers included 10,574 wounded. It is of some interest to note that, of the 226,000 disembarked between May 27th and June 1st, approximately 95,000 - not quite two-fifths of the total - were taken off the beaches, and 131,000 from Dunkirk harbour.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The approaches to Dunkirk.

Reconnaissance during the day was carried out over the Dunkirk area by five Lysanders, two of which failed to return. A Potez 63, under French fighter escort - some of the two dozen or so French aircraft which had evacuated to this country - searched for enemy batteries, one of which was spotted near the Bergues - Rexpoede road. The military movement reported during the day was not of an extensive character, and was chiefly from the south and south-east, converging on Bergues and Hondchoote.

/Bombing ...

June 1st.

Bombing operations were again directed entirely to hold up the German advance to Dunkirk. Blenheims attacked transport at the approaches to Bergues and Furnes at 0600 hours (twelve aircraft): at 0700 hours (six aircraft): at 0800 hours (six aircraft): and at 1500 hours (twelve aircraft). Finally, at about 2030 hours, eighteen Blenheims completed the day's operations by attacking the village of Hondchoote and its surroundings, where enemy concentrations had been observed. None of our bombers was lost from the day's work.

BOMBING OPERATIONS: (b) By night. The approaches to Dunkirk:

By night only a small proportion of the available effort was put on to the tactical targets. Sixteen Wellingtons operated against these, of which, in accordance with Back Component's request, half were put on to roads at Rexpoede, and the remaining half divided between Loax and Furnes. Nine out of the sixteen aircraft failed to locate their primary objectives.

BOMBING OPERATIONS: (c) By night. Marshalling Yards and oil in Germany.

The remaining effort of the night was directed against marshalling yards and oil targets in Germany. The weather - which caused the A.A.S.F. to wash out operations entirely - was very unfavourable. Of the fourteen Whitleys which set out to attack the synthetic oil plant at Homberg, eleven failed to bomb, and three bombed other targets: and of the twenty-five Hampdens which set out to bomb the oil refineries at Ostermoor and Hamburg (Wilhelmsburg), twenty-two returned with their bombs, and two bombed other targets. Nor was the proportion of success much higher against the marshalling yards and sidings at Osnabruck, Hamm, Coblenz, Krefeld, Euskirchen, Duren and Rheydt. Six Whitleys and twelve Hampdens operated against these objectives: but of the eighteen aircraft seven failed to bomb, and eight attacked alternatives.

In sum, during the night's work (from which no aircraft were lost), only fourteen out of seventy-three sorties claimed to have located their primary objectives.

FIGHTER OPERATIONS

Protection by Fighter Command aircraft on June 1st was again organised over Dunkirk, the beaches and the nearby shipping in a series of eight patrols at an average strength of three to four squadrons. An effort was made to give the greatest degree of protection in the early morning and the late evening hours, but patrols also

/occurred ...

June 1st.

occurred throughout the day. The main periods when no protection was afforded were approximately 0730-0850, 1020-1120, 1220-1445, 1545-1615, and 1715-1845 hours. Coastal Command continued, in addition to its other manifold duties, to fly patrols of three aircraft over the North Goodwins-Gravelines-Ostend line throughout the day.

The day of June 1st broke with mist and low cloud, but these soon dispersed, and some of our ships - which had also experienced bombing during the night - reported attacks in the Harbour area, as they lay alongside the mole, at 0415 and 0500 hours. This was before our first main patrol appeared on the scene, for maximum protection had been requested from 0500 hours onwards. When our first main patrol appeared, it engaged at 0515 hours about ten Ju. 88s, and then, about half an hour later, some thirty enemy fighters. At about the same time - 0545 hours - the Coastal Command patrol of three Blenheims chased an isolated Ju. 88 from the Dunkirk area.

No great enemy activity was reported while our second main patrol, from about 0615-0730 hours, was on the line, but as soon as this had turned for home a series of attacks developed. These occurred between 0750 and 0845 hours, in the interval before the appearance of the third main patrol. Some thirty or forty Ju. 87s seem to have made free with the shipping off shore: the 'Keith', hit three times, was abandoned, the 'Ivanhoe' was damaged, and the 'Basilisk' and 'Skipjack' were sunk. In the absence of our fighters the enemy aircraft came low, and machine gunned our men in the water. An attempted interception was made at about this time by the small Coastal Command patrol, but as soon as it attacked a Ju. 87, eleven Me. 109s intervened and shot down two of our three aircraft.

Our third main patrol of the day now came up, just when a renewed series of attacks was beginning at about 0906 hours. The Spitfires dealt with a He. 111 which bombed the destroyer 'Havant', and attacked, during the course of the patrol, some twenty unescorted enemy bombers.

At about 1015 hours the Coastal Command patrol drove off a He. 111 which was about to attack two destroyers, but between 1020 and 1120 hours, when no main patrol was on the line, a French

/destroyer ...

June 1st.

destroyer was sunk, and a further British destroyer hit. At about 1120 hours a patrol of twenty-eight Hurricanes appeared, and within ten minutes was engaged with a very large enemy force of some fifty or sixty Me. 109s and 110s. Some of our aircraft also reported the presence of enemy bombers, but these were not engaged. On this occasion, in the combat between fighters, nineteen Me. 109s and two Me 110s were claimed as definitely destroyed for the loss of five Hurricanes. Apparently during the course of the patrol two personnel vessels (Brighton Queen' and 'Scotia') were sunk. Another attack then developed, at about 1230 hours, as soon as the Hurricanes had turned for home. In this, two transports were damaged, and the 'Mosquito' was abandoned.

Between 1220 and about 1445 hours no patrol was on the line, but during this period there was fortunately a lull in enemy air activity, at least as far as our shipping was concerned. The next attacks reported were at 1500 and 1530 hours when our fifth main patrol was operating. Apparently only a very few enemy aircraft were concerned: our patrol engaged two or three isolated bombers and a fighter. A Coastal Command patrol also intervened.

Renewed attacks on shipping apparently by about twelve bombers then took place at 1600-1615 hours in the very short interval before the appearance of the sixth main patrol. When the patrol came up, four Ju. 87s were promptly engaged (1615 hours), then fifteen Ju. 87s accompanied by fourteen Me. 109s. Three or four enemy aircraft were claimed for no loss to ourselves, and no attacks were reported on our vessels during the period of the patrol. The Coastal Command patrol which was also engaged claimed four Ju. 87s, in spite of one of its attacks being impeded by a failure of recognition on the part of the Spitfires. In addition it dispersed aircraft about to attack two lifeboats full of soldiers.

By now visibility was declining: during the sixth patrol three intercepted Heinkels had been "lost" for this reason, and at 1750 hours the 'Princess Elizabeth', trying to approach Bray, ran into 'dense fog' and was compelled to return to Dover. Some enemy activity seems to have occurred at about 1840 hours, however, when the newly arrived seventh main patrol encountered two sections

// of ...

June 1st.

of three or four unescorted bombers. The poor visibility troubled our squadrons, and no claims were made. A few moments before - at 1832 hours - the Coastal Command patrol shot down one of a formation of three Heinkels found attacking an M.V.

The eighth and last patrol, on the line from about 2000 - 2100 hours encountered no enemy aircraft at all. "Thick cloud" was mentioned in the report - indeed one section of Spitfires lost contact with the rest of the formation from this reason. No enemy attacks occurred during this period, or, (with a possible exception at 2200 hours) during the remainder of the day.

Though the scale of enemy air attack sharply declined from about 1240 hours onwards, and practically ceased in the evening as visibility deteriorated, the cost of the morning attacks to our shipping was large. The total losses from all causes during the day amounted to three destroyers, a minesweeper, two trawlers, a drifter, and three other vessels: while in the damaged category, came six destroyers (three from air attack), a minesweeper, two personnel vessels (one from air attack), a hospital ship and two other vessels. It was this scale of air attack which, according to Vice-Admiral, Dover, was "primarily responsible" for the decision henceforth to suspend evacuation by daylight. But a contributory factor of almost equal importance was the fact that the newly swept central route had now come under shore gunfire at its exit into the Dunkirk roads from batteries near Gravelines. All three approaches to Dunkirk were now covered by enemy guns, and evacuation by night only thus became imperative.

In sum, though it is clear that our fighters on this day were unable to prevent serious losses to our shipping, it is equally clear that the change of evacuation policy was brought about by other factors in addition to German air attack. It is, moreover, also clear, that most of the damage from air attack occurred in the unavoidable intervals between our patrols.

JUNE 2nd.

THE EVACUATION

During June 2nd successful resistance was offered to enemy pressure against the southern side of the reduced perimeter between Bergues and Teteghem.

In accordance with the decision of the previous day, evacuation was carried out during the hours of darkness. An endeavour, however, was made to bring in two hospital ships by day in the hope that the Germans might respect the Red Cross: the enemy reacted as feared, rather than as hoped. In the evening the lifting of the troops began again, and at 2330 hours S.N.O. Dunkirk was able to send the gratifying signal to Vice-Admiral, Dover: "B.E.F. evacuated."

RECONNAISSANCE AND BOMBING OPERATIONS: (a) The Dunkirk area

Five Lysander and two Blenheim sorties were flown from Back Component during June 2nd, all aircraft returning safely. The main information obtained, apart from reports on the embarkation, was of the location of enemy batteries. In the early morning batteries were pinpointed and photographed at the village of Le Clipon (by the Pointe de Gravelines). In the afternoon a Lysander pinpointed two complete and three incomplete pontoons over the Bergues - Furnes Canal, and successfully dropped a message at the base of the Dunkirk quay, in the face of hot fire from our own anti-aircraft guns.

Daylight bombing was limited to twenty-four Blenheim sorties which attacked batteries by sections between first light and 0745 hours. These were the batteries, between Les Huttes and Le Clipon, which had brought the central seaward approach to Dunkirk under fire, and the object of spreading the attack over two hours or more was to neutralise them during the dawn period, when a concentrated spell of evacuation was to take place. Much anti-aircraft fire was encountered, and though no Blenheims were lost, some were damaged, and afterwards crash-landed on their aerodromes.

BOMBING OPERATIONS: (b) By night. Communications and aerodromes in France. Marshalling-yards and oil in Germany.

By night, sixteen Wellingtons attacked roads behind Dunkirk, at Soex, Rexpoede, Houthem and Hondchoote, while the A.A.S.F. sent seventeen sorties against communications and aerodromes at Givet, Mézières, Conz and Trier. German marshalling-yards (Osnabruck, Hamm, Soest, Krefeld and Duren) were the targets for twelve Whitleys and six Hampdens: about half the Whitleys, but only one of the Hampdens, claimed to have found and attacked their primary objectives. In addition, twelve Whitleys continued the oil project, being directed against the synthetic oil plant at Homberg. Results were better than those usually recorded against oil objectives in the Ruhr, for at least seven of the aircraft apparently located the target, and many of them claimed direct hits. No aircraft was lost from the night's work.

FIGHTER OPERATIONS.

The plan of evacuation now involved shipping being present in the Dunkirk area only between 2100 and 0330 hours - personnel ships and destroyers taking off men directly from the

JUNE 2nd.

harbour, and other destroyers, sloops, minesweepers and tugs anchoring off the beaches just east of Dunkirk, to be filled by the ferry service of boats. It was thus now possible to concentrate our fighter patrols in the dawn and dusk periods, when our shipping was leaving and approaching Dunkirk. In addition to the main work by Fighter Command patrols of three aircraft (of Nos. 206, 235, 801 and 806 Squadrons) operated under Coastal Command to cover the "central" approach to Dunkirk from 0830 - 1100 hours.

Loading proceeded according to plan during the night June 1st/2nd, although the beaches were shelled and a trawler was sunk in the harbour. Early morning haze assisted the departure of our ships, and our first two main patrols, both at four-squadron strength, encountered no enemy aircraft, nor were any ships apparently attacked during this period. Our third patrol, however, which was over the Dunkirk area from about 0745-0845 hours, was engaged with very considerable forces. Elements of this patrol (the strongest yet flown, consisting of five full squadrons) appear to have fought three separate combats. At 0800 hours No. 32 Squadron (Hurricanes) encountered about twenty bombers and fighters, while Nos. 92 and 611 Squadrons (Spitfires) were separately engaged with a much larger mixed formation. In the course of this combat No. 611 Squadron occupied the attention of the enemy fighters, while No. 92 Squadron got among the bombers very successfully. Towards the close of the patrol the two remaining squadrons, Nos. 66 and 266 (Spitfire), also fought an action with "at least" sixty bombers, dive-bombers and fighters. In the course of these engagements eighteen bombers and ten fighters were claimed for the loss of seven Spitfires - and no reports of attacks came from our ships.

At about 1045 hours a Coastal patrol witnessed an attack on a British destroyer and a cruiser, and was able to drive two Ju. 88s away from our ships. No incidents were reported after this until about 1915 hours, when our shipping was again approaching Dunkirk, and one of our main patrols was again in the air. A large formation was encountered at about 2000 hours, when all four squadrons (two Spitfire and two Hurricane) were engaged. Three of the squadrons dealt with fighters only, but No. 72 Squadron was thereby enabled to intercept five or six Ju. 87s, and to destroy most of them. During this period there were no reports of attacks on our ships, save that the hospital ship 'Paris', already hit before, was further damaged, so that it became necessary to abandon her.

A final patrol of the day was then flown over the Dunkirk approaches from about 2010 - 2120 hours, but no further enemy aircraft were seen, nor were there any reports of attacks on ships. Blenheims of No. 604 Squadron then continued to patrol singly over Dunkirk throughout the night. Before midnight the last of the B.E.F. were clear, though the embarkation of the French was going slowly - not from lack of ships, or from enemy air attack, but from the absence of a continuous flow of men.

The combination of evacuation during darkness, and concentration of fighter patrols in the early morning and late evening hours, thus appears to have been particularly successful in avoiding casualties from enemy air action. No serious interference from the Luftwaffe was reported, not more than two ships were damaged from air attack (excluding the two hospital carriers), and our fighters intercepted successfully on all three occasions when enemy formations were reported.

JUNE 3rd.THE EVACUATION.

It now remained to rescue as many as possible of the French who still awaited embarkation. In fact, there proved to be some difficulty in locating French troops, for many were delayed by the necessity of delivering a counter-attack somewhat later than planned, and others refused to embark except as complete units. Block ships were sunk in the early hours of June 3rd, but the position in which these settled down fortunately still enabled small craft, if they could navigate the various difficulties successfully, to go right up to the quays and docks of the inner harbour. Evacuation was again suspended with the light on June 3rd, resumed with the evening, and continued until daylight on June 4th. During the day of June 3rd the enemy captured Bergues.

RECONNAISSANCE AND BOMBING OPERATIONS: (a) Near Dunkirk

The weather conditions were unfavourable for reconnaissance in the morning, and no sorties were despatched by Back Component. In the afternoon a Potez, escorted by Blochs, reported on the situation at Dunkirk.

Bombing operations by day were limited to another series of attacks on the batteries near Pointe de Gravelines during the early morning hours, to coincide with the major evacuation effort. Eighteen Blenheims bombed from a low level (1,000 - 3,000 ft.), but were unable to observe results.

BOMBING OPERATIONS: (b) By night. Communications and batteries near Dunkirk. Oil and railway objectives in Germany. Oil storage tanks at Ghent and Rotterdam.

By night, the policy was continued of putting a small proportion of effort on targets near the battlefront and the main weight against Germany. In the former category, twelve Wellingtons attacked Bergues and the battery position near the Pointe de Gravelines.

By far the major effort - 130 sorties - was directed against German oil, and with considerable success, to judge from the reports of the crews. Weather conditions over Germany were favourable, and about two-thirds of the aircraft concerned reported that they had located and bombed their primary objectives. Many claims of direct hits were made, and fires and explosions reported. The objects of attack were the refineries at Monheim, Reisholz, Emmerich and Dusseldorf, the synthetic plants at Gelsenkirchen (Buer), Kamen and Homberg, and the stocks at Frankfurt-on-Main. No aircraft was lost over Germany, though one or two crash-landed on return, and another flew in to the balloon barrage at Harwich.

German railways at various points were attacked, as an alternative, by most of the aircraft which were unable to locate the oil plants: while the A.A.S.F. sent out a few sorties (5) against the railway system at Konz.

In addition to these operations, seven Beauforts and eight Hudsons were despatched by Coastal Command to attack /the

JUNE 3RD.

the oil storage tanks at Ghent and Rotterdam. Hits, explosions and fires were reported.

FIGHTER OPERATIONS

Fighter patrols were again planned for the early morning to cover shipping as it left Dunkirk. The first main patrol, of four squadrons, was on the line by about 0515 hours, but ground mist was heavy, and no enemy aircraft were reported. The next patrol was also impeded through mist or fog, though one squadron of the four reported an inconclusive encounter with twelve Ju.87s at about 0730 hours.

In addition to these main patrols by Fighter Command over the Dunkirk area, protective patrols over the central approach to Dunkirk were planned for 0745 - 0930 hours. These were carried out in succession by six Hudsons of No. 220 Squadron, six Blenheims of No. 235 Squadron, and six Skuas of No. 801 Squadron, but without encountering enemy aircraft.

No further patrols were flown, but by arrangement fighters remained to answer appeals for help over Dunkirk on the request of Vice-Admiral, Dover. Visibility further declined, however, and no reports of air attack were received. By night single Blenheims continued to operate over Dunkirk, and the embarkation of the French proceeded.

JUNE 4THTHE EVACUATION.

By the morning of June 4th the time had come to call a halt. Though the physical strain was immense on the crews, some of whom had now been carrying on the dangerous and arduous work of rescue for the whole nine days since May 26th, this was not the reason for discontinuing the evacuation. Apparently some twenty or thirty thousand French troops remained in and around Dunkirk (including a good proportion of non-combatants) but ammunition was quite expended, and the end could not in any case be long delayed. By now the Germans had entered Rosendaël, and were in a position to reach the sea on the whole front. After the completion of the early morning embarkation Admiral Abrial accordingly acknowledged that further resistance would be useless, and during the afternoon "Operation Dynamo" was officially terminated. "

RECONNAISSANCE AND BOMBING OPERATIONS:(a) North of the Somme

Only three reconnaissance sorties were despatched during the day: they covered the ground north of the Somme, and reported various movements of an inconclusive character. No bombing operations were ordered for the daylight hours.

BOMBING OPERATIONS:(b) By night, Communications and concentrations in France. Oil in Germany

The A.A.S.F. continued to attack communications and concentrations in the Meuse area, sending out eight sorties for incendiary attacks against woods at Hirson and Givet, and eleven sorties for attacks against convoys or communications in the same towns. Fires were started in the woods, but most of the aircraft directed against the towns bombed on estimated time of arrival only.

Bomber Command activities were on the night of June 4th/5th exclusively directed against German oil. The results may be seen in tabular form:-

Of 3 Wellingtons primarily directed against the Reisholz refinery, 1 claimed to have bombed it.

" 14 " primarily directed against the Monheim refinery, 11 claimed to have bombed it.

Admiral
Ramsay's
Report.

* From midnight on June 1st (when the "night only" policy was adopted) to the close of the evacuation, 63,846 French and 22,592 British disembarked in British ports, together with 407 wounded. This brought the total numbers disembarked during the "Dynamo" period to 316,663 (186,587 British fit, 123,095 French fit, 6,981 wounded)

347. June 4th

Of 12 Whitleys primarily directed against the
Gelsenkirchen (Buer) plant,
5 claimed to have bombed it.

" 2 " primarily directed against the
Homburg plant,
1 claimed to have bombed it.

" 3 " primarily directed against the
Kamen plant,
None claimed to have bombed it.

" 12 Hampdens primarily directed against the
Mannheim oil stocks,
6 claimed to have bombed them.

" 11 " primarily directed against the
Frankfurt-on-Main oil stocks,
10 claimed to have bombed them.

One aircraft was lost from the night's work.

BOMBING OPERATIONS (c) Policy Discussion. May 30th -
June 4th

S.46368
Enc. 64A
(30.5.40
Document
No. 34)

On 30th Air Ministry had issued a directive to A.O.C.-in-C., B.A.F.F. and Bomber Command outlining a policy for future bombing operations in the light of the experience gained to date. The directive, it will be remembered, had laid down that the Blenheims of No. 2 Group should continue to operate in support of land operations, though for the time being on a reduced scale of effort: while the "heavies" should attack, not road objectives in forward areas, but railways and German industry "on a modified form of Plan W.A.8" - particularly where the German aircraft industry was concentrated in the accessible areas of Hamburg, Bremen, Frankfurt and the Ruhr. In the event of "a further critical situation arising in the land battle", however, the whole available effort of the air striking force was to be again placed in support of B.A.F.F., for employment on "collaboration" tasks.

The date when this policy was to be brought into effect does not, however, appear to have been clearly specified. In fact, the Blenheims had continued to operate intensively by day on their "collaboration" tasks until June 2nd, when their effort fell to 24 sorties: while the heavies had put their major effort on forward targets on May 30th/31st and May 31st/ June 1st, and transferred the main weight to marshalling yards and oil in Germany on June 1st/2nd, 2nd/3rd, and 3rd/4th. On each of these last three nights, however, a dozen or so sorties had also been directed against those forward targets which had been classified by the directive of May 30th as unsuitable for night attack by the heavies. Moreover, on no occasion had any direct attack been made on a German aircraft plant, though many of the oil objectives attacked could be regarded as within the general areas where the German aircraft industry

June 4th

was situated.

S.46368
Enc. 65A

The lack of precision in regard to the enforcement of this directive may be seen in a letter from the A.O.C.-in-C., Bomber Command on June 2nd. In this, Air Chief Marshal Portal stated that the intention to act on a modified form of Plan W.A.8. had been noted; that he had in fact detailed the airframe factory at Deichshausen for attack on May 30th/31st: but the D.C.A.S. had then informed him that such an attack would not be in conformity with the decision of the Air Staff. The A.O.C.-in-C. therefore urged that an early indication of the date on which it was intended to implement W.A.8. should be given.

S.46368
Encl. 66A
(4.6.40.
Document
No. 18)

A revised directive was now issued from Air Ministry on June 4th. This emphasised that, while all possible pressure on objectives in Germany should be continued up to the opening of the next phase of the land battle, once the battle was joined it would be necessary to give priority to operations in support of the French land forces. At the same time, every effort was to be made to persuade the French that their cause could best be served by the employment of Bomber Command against "really suitable and profitable objectives", even if those objectives were not in the immediate zone of the land battle. A.O.C.-in-C., Bomber Command was accordingly instructed to prepare to direct at short notice a high proportion of available effort to "collaboration", in the event of a renewed land battle, but meanwhile to place the main weight of attack by the heavies on to oil targets, under Plan W.A.6, including oil-stocks above ground. Since, however, recent developments had "made it necessary to take a shorter term view than formerly", and since in any case it would be difficult to identify oil targets precisely in the ensuing dark nights, A.O.C.-in-C., Bomber Command was instructed to allot aircraft factories as alternative objectives, and to "endeavour to cause continuous interruption and dislocation to the German aircraft industry" by occasional attack, and by suitable routing of bombers whose primary targets would be oil plants. The energies of Bomber Command were, in general, to be conserved during the dark period, in preparation for an intensive effort by renewed moonlight; and the A.O.C.-in-C. was warned that "in no circumstances should night bombing be allowed to degenerate into mere indiscriminate action".

Very little time was to elapse during which A.O.C.-in-C. Bomber Command was free to carry out the strategic bombardment side of this policy. On the night June 4th/5th, as indicated above, the whole weight of the heavies was put on to German

June 4th

oil: but by June 5th the next phase in the land battle had begun, in the form of the German offensive against the Somme line. For three nights a proportion of the effort of the heavies was then still devoted to oil, but from June 8th/9th onwards until the French demand for an armistice no further attacks were made on German industrial objectives. ~~HE~~

FIGHTER OPERATIONS

Fighter protection over the Dunkirk area and its seaward approaches was again arranged for first light, the intention being that Fighter Command should patrol from 0345 - 0600 hours and Coastal Command from 0600 - 0800. The execution of the first part of this programme was hindered, and of the second part, prohibited, by fog, which however must have supplied an even better form of protection for our ships.

From 0430 - 0615 four Spitfire squadrons were on the line: they encountered no enemy aircraft. Fog made landing at Rochford a matter of great hazard, and after one Spitfire had crashed, most of the remaining aircraft landed at Tangmere, which was reported to be the one entirely clear aerodrome in No. 11 Group. Two Hurricane squadrons then continued the patrol, reaching the Dunkirk area about 0530 hours: again no enemy aircraft were encountered, and again great difficulty was experienced in landing. No. 72 Squadron, for instance, trying to land, as ordered, at Manston, nearly hit the cliffs, and then, after finding Littlestone and Hawkinge fog bound, lost four aircraft in a renewed attempt to land at Manston. Three other aircraft of the squadron managed to put down safely at Shoreham, and a fourth in a field. With this unfortunate anti-climax, the fighter patrols over Dunkirk came to an end.

TOP SECRET

R.A.F. NARRATIVE

THE CAMPAIGN IN FRANCE AND THE
LOW COUNTRIES

PART IV

THE BATTLE OF FRANCE

(FIRST DRAFT)

Prepared by
Air Historical Branch (1)
Air Ministry.

R.A.F. NARRATIVE
THE CAMPAIGN
IN FRANCE AND THE LOW COUNTRIES

	<u>Pages</u>
PART IV. <u>THE BATTLE OF FRANCE</u>	350 - 455
<u>The formation of the Somme-Aisne line</u> <u>May 21st - June 5th 1940</u>	350 - 378
Resume	350
Military operations, May 21st - June 5th	351 - 352
German Bombing operations south of the Somme-Aisne line. May 23rd - June 5th:	
(a) May 23rd - May 26th	353
(b) May 27th - May 31st	353
(c) June 1st - 2nd	353
(d) June 3rd. The attack on Paris	354
(e) Summary	355
R.A.F. Operations May 23rd - June 5th:	
(a) Bombing Operations	356
(b) Fighter Operations	357
(c) "South Component"	358
Appreciation of the Military position by B.A.F.F. Headquarters	360 - 363
The demand for Fighter reinforcements	364 - 368
Strength of opposing Military Forces, June 5th:	
(a) The German forces	369
(b) The Allied forces	369 - 371
Strength and disposition of the German Air Forces, June 5th	372 - 373
Strength and disposition of Allied Air Forces, June 5th:	
(a) British	374 - 377
(b) French	377
(c) Summary of opposing air strengths	378
 <u>The Second German Offensive - The Battle of</u> <u>France, June 5th - 18th</u>	 379 - 455
<u>June 5th</u>	379 - 381
Military Summary	379
Bombing Operations:	
(a) Near the Somme	379
(b) By night. Communications in France	380
(c) By night. Marshalling yards and oil in Germany	380
Fighter Operations	380
<u>June 6th</u>	382 - 385
Military Summary	382
Bombing Operations:	
(a) Near the Somme	382
(b) By night. German communications and airfields in France	383
(c) By night. Marshalling yards and oil in Germany	384
Fighter Operations	384
Fighter Reinforcement	385

	<u>Pages</u>
<u>June 7th</u>	386 - 390
Military Summary	386
Retirement of South Component	387
Bombing Operations:	
(a) Against the thrust to the Seine	387
(b) By night. German communications in France. Forest fire-raising	388
(c) By night. Oil in Germany	388
Fighter Operations	388
Fighter Reinforcement	389
<u>June 8th</u>	391 - 394
Military Summary	391
Retirement of B.A.F.F. Operational Headquarters	392
Bombing Operations:	
(a) Between Somme and Seine	392
(b) By night. German communications in France	393
(c) By night. Marshalling yards etc. in Germany	393
Fighter Operations and Reinforcement	394
<u>June 9th</u>	395 - 398
Military Summary	395
Bombing Operations:	
(a) Between Somme and Seine	396
(b) By night. German communications and concentrations in France	396
(c) By night. Railway targets in Germany	397
Fighter Operations	397
Retirement of A.A.S.F. Advanced Headquarters	398
<u>June 10th</u>	399 - 402
Military Summary	399
Bombing Operations:	
(a) Near the Seine	400
(b) By night. German communications in France	401
Fighter Operations	401
Moves of South Component	402
<u>June 11th</u>	403 - 408
Military Summary	403
Retirement of South Component and the Eastern A.R.U.	404
Bombing Operations:	
(a) Near the Seine	404
(b) By night. German communications in France	406
Fighter Operations	406
<u>May 3rd - June 11th</u>	409 - 410
Operations against Italy:	
(a) Preparations, May 3rd - June 11th	409

	<u>Pages</u>
<u>June 11th - 12th</u>	411 - 413
Operations against Italy:	
(b) The events of June 11/12th.	411
<u>June 12th</u>	414 - 418
Military Summary	414
Bombing Operations:	
(a) The Seine area	415
(b) The Oise area	416
(c) Near St.Valery-en-Caux	416
(d) By night. German communications in France.	416
Fighter Operations	416
Preparations for withdrawal	417
<u>June 13th</u>	419 - 427
Military Summary	419
Retirement of the A.A.S.F.	421
Bombing Operations:	
(a) Intended scale of effort	422
(b) In the Seine area	423
(c) In the Marne area	424
(d) By night: German communications and concentrations in France	425
Fighter Operations	426
Operations against Italy	427
<u>June 14th</u>	428 - 434
Military Summary: Orders for partial evacuation	428
Moves of B.A.F.F. ordered before partial evacuation	430
Bombing Operations:	
(a) The Seine area	431
(b) Merville aerodrome	432
(c) By night. German communications in France	432
(d) By night. German marshalling yards; the Black Forest, mining the Rhine	432
Fighter Operations	433
<u>June 15th</u>	435 - 439
The evacuation plan:	
(a) Departure of the bombers	435
(b) Concentration of Fighters for defence of the ports	435
Military Summary	436
Bombing Operations:	
(a) The Seine-Eure area	437
(b) By night. Genoa	438
Fighter Operations	438
<u>June 16th</u>	440 - 443
The evacuation:	
(a) Military	440
(b) R.A.F.	440
Military Summary	441
Bombing Operations: Milan and Genoa	442
Fighter Operations	442

June 17th

Military Summary

The evacuation:

- (a) Cherbourg
- (b) The Western ports
- (c) Marseille

Fighter Operations

Bombing Operations: By night. Oil,
railways and river-mining in Germany

Pages

444 - 451

444

444

444

449

450

451

June 18th

452 - 455

The evacuation:

- (a) Nantes and St. Nazaire
- (b) Cherbourg

Fighter Operations

Bombing Operations: near Cherbourg

452

453

454

454

THE FORMATION OF THE SOMME-AISNE LINE

MAY 21st - JUNE 5th 1940

I RESUME

It will be remembered that German armoured forces, representing the spearhead of the main enemy thrust, had so successfully exploited their break-through in the Sedan area that by May 20th/21st they had penetrated to Amiens, Abbeville, and the mouth of the Somme. This advance had split the Allied armies in twain, opening a long corridor between them into which the Germans had poured fresh forces. The enemy had then made no serious attempt to attack in a southward direction across the Aisne or Somme, but had left containing forces, principally of infantry, along the southern edge of their corridor, while their armour wheeled right to attempt the destruction of the Allied armies of the north.

The progress of this episode, culminating in the evacuation at Dunkirk, has already been traced. It remains now to consider the course of events to the south of the German forces. This topic it will be convenient to treat first (and briefly) up to June 5th, while the main German effort was still northward, or engaged in regrouping for a thrust to the South: and secondly (in greater detail) from June 5th onwards, when the Germans broke through the Somme - Aisne line and soon began to range at will through the heart of France.

II MILITARY OPERATIONS, MAY 21st - JUNE 5th

26.5.40
Document
No.33

Broadly speaking, military operations along the Somme - Aisne line up to June 5th were limited to attempts by the Allies to constitute a strong defensive position, together with attacks which aimed at the reduction of the German bridgeheads over the Somme. There was also present at first the idea of a great operation to advance north and join hands with the Allied forces cut off by the German penetration. General Vuillemin, in fact, on May 26th called on Air Marshal Barratt to demand his full co-operation in the forthcoming offensive; but the moment for this, if it had ever existed, soon passed with the collapse of the Belgian front, and no serious attempt was made at this project on the grand scale. Doubtless the attacks on the German bridgeheads, had they gone well, might have led to something greater. But they did not meet with any considerable success: for though the initial German onrush had now turned northwards, the enemy maintained his bridgeheads to the South throughout the period under review. Weak German forces which had penetrated across the Somme were, it is true, driven back, and the bridgeheads were reduced, but the essence of the position remained unchanged.

The British troops operating in the Somme area during this period were initially not a first-line formation at all, but consisted largely of the 12th Division, recruited principally for labour on the Lines of Communication. Scattered elements of this division operated over a wide area during the first confused days following the German penetration to Abbeville and beyond. At one time detachments were on the right bank of the Somme: but such formations as were not cut to pieces were withdrawn by May 24th, and by May 26th were ordered to Nantes, far from the battle area.

The next British formation to bear a share in the Somme operations was the Armoured Division. This was ordered from England to Le Havre, but diverted to Cherbourg in consequence of enemy bombing attacks on the former port: it concentrated at Pacy: and on the 23rd May it moved towards the Somme. The intention was that a rapid advance by this Division should cross the Somme west of Amiens, and by a threat against St. Pol bring relief to the hard-pressed main forces of the B.E.F. in the North. Attacks on bridges between Picquigny and Amiens failed on the 24th May, however, and an attempt under French orders on May 27th to reduce the Abbeville bridgehead was no more successful. The Armoured Division suffered severely in these attacks: it had perforce been thrown into the battle without adequate pause for maintenance, or due measure of infantry and artillery support, and tank casualties were some fifty per cent of the units engaged.

Somewhat greater success met the French efforts of May 28th and 29th in this sector, when, with the Armoured Division in reserve, they captured some ground up to the line of the Somme. The German hold on the Abbeville and St. Valery bridgeheads, however, was not really loosened. On the contrary, they proceeded to bring up reinforcements and strengthen their positions in front of these two towns: while

on May 30th they were observed to be concentrating light tanks and troops at Frévent - a central point whence they might reinforce their bridgeheads at Abbeville, Amiens or Peronne.

A fresh British formation was now brought to the Somme front. The 51st Division had served in the Maginot Line. It was ordered from Etain, near Verdun, on May 20th, began to arrive in the Bresle area on May 27th, and was moved up to front-line positions by June 1st. Together with the support group of the Armoured Division, its function was to hold the Somme from Erondelle (South of Abbeville) to the sea. The remainder of the Armoured Division was withdrawn from the battle area for refitting and repair. Both these British divisions were part of the French Tenth Army, which was Groupement A of the French Seventh Army re-christened.

On June 3rd the 51st Division put in a reconnaissance in front of the Abbeville bridgehead, and the following day, in co-operation with French forces, an attack was launched against the same objective. It was a failure. The French ran into unsuspected anti-tank gun positions and mine defences, and lost heavily in tanks, while the 152nd Infantry Brigade (51st Division) suffered severe casualties. On June 5th the Germans went over to the offensive, and the initiative was never again in French hands.

The failure of these attacks to register any great advance was scarcely surprising. In addition to all the other factors, reconnaissance had established that from May 29th onwards the Germans were preparing for a southward move. Their concentration at Frévent on May 30th has already been mentioned. On May 31st they were enlarging their bridgehead at Corbie, East of Amiens: on June 1st two fresh German divisions were identified along the Somme: and on June 2nd reinforcements were streaming towards the Peronne-Ham stretch of the Somme, and towards the Aisne between Neufchatel and Chateau-Porcien. On June 3rd attempts were made to probe the French defences along the Ailette, one of the links between Somme and Aisne, while the French were apprehensive of a German attack across the Aisne in the direction of Reims. On June 4th, in addition to repulsing the attack of the French and the 51st Division at Abbeville, the Germans also reinforced the Peronne sector. All things thus pointed to a German offensive on a wide front, and on June 5th this happened. On that day they struck from Abbeville towards the Bresle: across the Somme below Amiens, and again near Peronne, both thrusts in the direction of Paris: and across the Ailette and Crozat Canal towards the Aisne.

The military operations on the Somme-Aisne front in the period under review may thus be reduced to this statement:- that till May 29th the Allies slightly improved their position, at some cost, but achieved no vital success: that from May 29th to June 4th the Germans brought up reinforcements: and that on June 5th they opened the offensive which was soon to lead to the complete collapse of France.

III GERMAN BOMBING OPERATIONS SOUTH OF THE SOMME-AISNE LINE.
MAY 23rd - JUNE 5th

(a) May 23rd - May 26th

An analysis of German bombing activity during the period May 23rd - June 4th in areas south of the Somme-Aisne line makes an interesting comparison with the direction of military activity. From May 23rd - May 26th, the German bombing attacks were concentrated, as before, largely on targets in the Northern battle area: but, again in accordance with the plan followed since May 13th, attacks were also made on railways, ports and aerodromes outside this area. Thus, on May 23rd, Le Havre was bombed (as it had been on May 22nd) and the port was closed owing to the magnetic mines dropped by the enemy. (This, incidentally, caused the Armoured Division, coming from England, to be diverted to Cherbourg, thereby inflicting on it a long approach to the Somme, and consequent breakdown casualties). On the same day aerodromes were bombed in the Reims area. On May 24th the attacks outside the battle area were directed largely against railways, for the Paris-Nancy line was cut between Vitry-le-François and Epornay, while Chateau Thierry was also attacked: The Paris-Reims line was cut at Lizy-sur-Ourcq and Reims: and the Paris-Dijon line at Héricy and Montereau. On May 25th the port of Dieppe was bombed from 1500 ft., with no opposition, since there were no anti-aircraft defences. Four ships and three dredgers were sunk, buildings were damaged, all the cranes were disabled, and two magnetic mines were dropped inside the pierhead, and twelve outside. In consequence the port had to be closed. On the same day two aerodromes were attacked, and railway lines at Compiègne and neighbouring localities. On May 26th, Dieppe was again attacked, with Le Tréport, while four aerodromes suffered including Coulommiers and Rouen-Boos. The railways cut included Paris-Nancy at Vitry-le-François, Trilport (near Meaux) and Mareuil: Paris-Laon at Crépy-en-Valois: and Paris-Dijon at Montereau. During this period the attacks on aerodromes accomplished very little, but the attacks on Le Havre and Dieppe were highly profitable, while the railways suffered considerable disorganisation.

(b) May 27th - May 31st

From May 27th to May 31st the plan of subsidiary attacks behind the lines practically ceased. On May 27th there were only small-scale attacks near Strasbourg, at Rouen-Boos, and at one or two other places, while on May 28th, 29th and 30th there was no activity except by isolated aircraft. The German Air Force attacks were almost entirely concentrated in the battle area around Dunkirk. Weather, too, was a restrictive factor, and doubtless the Germans were also engaged in re-grouping their aircraft in preparation for the coming offensive to the South.

(c) June 1st - 2nd

On June 1st a renewed attack on communications began. In addition to other targets at Rouen, attacks on railways were made over a wide area, ranging from Serqueux, Creil

(near Compiègne), Vitry-le-François, and Nogent-sur-Seine down to the mouth of the Rhone. The Rhone Valley attacks were delivered by aircraft which crossed the frontier at Colmar and Mulhouse, and proceeded by way of Besançon and Pontarlier to Bourg, Lyon, Vienne, Valence and Marseille. Apart from the attack on the harbour at Marseille most of the bombs were apparently aimed against railway lines and important cross-roads, doubtless with the object of impeding troop movements to the North. The Lyon-Marseille line was cut at Givors and Livron, and the Lyon-Geneva line at Ambérieu and La Valbonne. Activity in the Rhône Valley was continued on June 2nd, when the railway south of Lyon suffered, and a further attack was launched against Marseille docks, together with the oil installations there. On the same day some aerodromes and other targets were attacked in Eastern France. The size and number of the formations employed in the Rhône Valley, where 120 aircraft were reckoned to have appeared on reconnaissance alone, was so disproportionate to the light character of the attacks, that the French were driven to interpret the German effort as a diversion, or else as a demonstration for the benefit of Italy.

(d) June 3rd. The attack on Paris

On June 3rd, Le Havre was again attacked, the petrol tanks and an iron works suffering, but the major operation of the day was that against targets in and around Paris. Very full information about plans for this raid had come in through intelligence sources in advance, including the time, the direction of the attack, and the number of aircraft to be employed. The exact day of the operation was not known, since it probably depended on weather, but it had been expected since June 1st; and a defence system was therefore organised. One Battle was ordered to patrol at 2000 - 3000 ft. from Reims to Châlons, and Wireless Intelligence cars were stationed at Reims, St. Hilaire, and Somme-Suippe. These units were ordered to report any news of large enemy formations direct to 67 (Fighter) Wing, which was to bring one flight of each fighter squadron to "readiness", and the remainder to "30 minutes". These precautions were maintained during the afternoon of June 1st, and the morning of June 2nd. They were then withdrawn, either because there seemed no prospect of the raid that day, or because the A.A.S.F. as a whole was now engaged on a move to the Le Mans-Orleans area. At 1205 hours on June 3rd, H.Q. A.A.S.F. was ordered to reinstitute the Battle patrol and fighter readiness, (though it was not clear if the W.I.S. was set up again), but two difficulties now stood in the way. In the first place, No. 73 (Fighter) Squadron was already committed to supplying cover for a French reconnaissance along the Aisne, and had only 6 aircraft available. Secondly, telephone communication between 76 Wing (one of whose squadrons was maintaining the Battle patrol) and Echiemines (where No. 73 Squadron was momentarily stationed) had broken down. 76 Wing could thus "neither pass reports to No. 73 Squadron, nor ascertain whether No. 73 Squadron could receive reports direct from the Battle. Between 1307 and 1310 two reports were received from the French Reporting Centre, that forces variously estimated at 50 - 100 bombers were flying westward from Rethel. Nothing

3.6.40
Document
No. 22

A.A.S.F.
Form 540
3.6.40

could be done as telephone communication with No. 73 Squadron had broken down." Furthermore, owing to the move of the A.A.S.F., the other fighter squadron (No. 1 - for No. 501 was on this day at Rouen-Boos) also seems to have been out of contact, for the following entries occur in the B.A.F.F. "1320 hours. (From A.A.S.F.) - French report that 200 enemy aircraft are approaching us; can you warn No. 1 Squadron, (tried, but did not succeed)." "1905 hours. (From A.A.S.F.) - since move fighters were not under their control owing to defective communications".

The main interception plans for the Paris raid thus broke down through bad communications, but some interceptions were nevertheless made by those aircraft of 73 Squadron which were at the time escorting French reconnaissance along the Aisne from Neufchatel to Rethel. The Hurricanes ran into a large number of enemy fighters, which must have been acting as cover for the bombers (who apparently proceeded unmolested).

Another German force apparently came from the Beauvais direction, estimated at from 70 - 100 aircraft. There is, however, little agreement on these figures, since a captured German officer stated that 500 unescorted bombers were to be employed: the most frequent estimate is of 230 - 270 unescorted bombers: while the Air Attaché at Paris gave an estimate of 100 - 120 bombers, escorted by 100 fighters. The enemy aircraft, whatever their number, attacked a wide selection of targets, including a dozen or so aerodromes outside Paris, some aircraft factories, the Air Ministry, and many railways. The damage inflicted was much the most serious in the case of the railways, for the Paris-Strasbourg line was cut at Chelles: the Paris-Soissons, Paris-Dieppe and Paris-Rouen lines were all damaged; and hits were registered on the stations of St. Cyr, Mitry-Mory and Thorigny, and on marshalling-yards at Versailles and Villeneuve-St. Georges. Of the thirty or so enemy aircraft reckoned to have been brought down, the majority were apparently accounted for by anti-aircraft fire. Casualties of the French amounted to some 250 (civilians and military) killed, and 650 injured. The raid was not, according to accounts, successful in causing civilian panic, if such was its intention, but it probably had a considerable effect on the French Government; and in any case the dislocation to railways, taken in conjunction with that inflicted during the preceding days, must have hindered French preparations to meet the forthcoming German offensive to the South.

(e) Summary.

German Air Force activity outside the battle area on June 4th was not great. Mines were laid outside Cherbourg, but the port was not closed, and extensive reconnaissance was again made of railways. Taken in sum, then, over the whole period May 23rd - June 4th, it can be said that, with the exception of May 27th - May 31st, the German attacks behind the lines were largely directed against aerodromes, ports and railways. Of these the attacks on the railways caused the most dislocation, and had the greatest influence over the forthcoming battle. But the reconnaissance information gained by the Germans was probably the most valuable thing to them: they had probed the French air defences thoroughly, and found them lamentably weak, and they had explored all French possibilities of troop reinforcements from South and East. With this information before them they proceeded to launch their offensive on June 5th.

IV R.A.F. OPERATIONS MAY 23rd - JUNE 5th.

(a) Bombing Operations.

It has already been shewn in the course of this narrative * that in the closing days of May the whole resources of Fighter Command, of the Back Component forces at Hawkinge and much of the strength of Bomber Command; were employed to support the Allied forces retiring on Dunkirk, and to cover the evacuation itself. This being so, it will be appreciated that our main air effort during this period had little to do with the formation of the Somme-Aisne line, or with activities directed to the prevention of German concentration against it. An exception, however, may be noted in so far as attacks against distant German communications favoured the Somme-Aisne positions as much as the Northern front. An analysis of the 1500 odd sorties of Bomber Command ordered during the period May 23rd - June 4th reveals that about 24% were intended to attack communications at some distance from the Northern battle: about 20%, German oil targets: and about 56% targets associated with the Northern battle or its immediate rear.

The force most directly concerned with the threat to the South was the A.A.S.F., which on May 22nd was thus stationed:

H.Q., B.A.F.F. - Coulommiers
H.Q., A.A.S.F. - Troyes

No. 71 (Bomber) Wing H.Q.				
No. 114 (Bomber) Squadron	- Blenheims	} non-operational - withdrawn into reserve near Nantes.		
No. 139 "	" "			
No. 105 "	" "			
No. 218 "	" "			
No. 75 (Bomber) Wing H.Q. - Mery-sur-Seine				
No. 88 (Bomber) Squadron	Battles - Les Grandes Chapelles	} South Champagne district - near Troyes.		
No. 103 "	" " - St. Lucien Ferme			
No. 150 "	" " - Pouan			
No. 76 (Bomber) Wing H.Q. - Marigny-le-Chatel				
No. 12 (Bomber) Squadron	- Battles - Echemines	} near Troyes.		
No. 142 "	" " - Faux-Villecerf			
No. 226 "	" " - Faux-Villecerf			
No. 67 (Fighter) Wing H.Q. - Saron-sur-Aube				
No. 1 (Fighter) Squadron	- Hurricanes - Allemanche	} South Champagne district - near Troyes.		
No. 73 "	" " - Hurricanes - Gaye			
No. 501 "	" " - Allemanche			

Thus the operational British Air Forces in France, following the withdrawal of four bomber squadrons of the A.A.S.F. to Nantes and the evacuation of the R.A.F. Component to Great Britain, were reduced to six squadrons of Battles and three squadrons of Hurricanes. These were all based in South Champagne, in an area to the north and west of Troyes, and with the Aisne and the Marne between themselves and the left flank of the German "corridor". They were therefore conveniently placed for operations against the German communications in the Meuse-Ardennes area, but direct intervention in the great struggle in the North of France was becoming increasingly beyond their powers.

In fact, of some 320 bombing sorties by the A.A.S.F. between May 23rd and June 4th/5th, 267 were by night and were directed against aerodromes and communications on the Ardennes-Meuse lines of reinforcement: while only 33 day sorties were against targets in direct proximity to the battle moving northwards. It may thus be said of the A.A.S.F. bombing activity at this time that such effect as it produced would benefit alike the armies in the North and the defensive line along the Somme-Aisne: but in each case by limitation of German reinforcement rather than by close intervention in the battle. How far this policy (which was the only practicable one in the given situation of the aerodromes) was successful it is impossible to form an exact estimate. All that can be said is that the Germans brought up sufficient forces to deal with both the armies of the North and ultimately with the new Southern line. To stop them it would have needed a force vastly greater than six squadrons of Battles (averaging about 20 sorties a night), even when their effort is taken in conjunction with the attacks on distant German communications by Bomber Command (averaging 25 sorties a night) and by the French.

(b) Fighter Operations.

During the fortnight under review the principal activity of the three A.A.S.F. fighter squadrons, apart from local patrols for aerodrome defence, was the provision of cover for reconnaissance aircraft and the operation of patrols from Rouen-Boos. On only two occasions did they act as fighter cover for the Battles. Since cover for reconnaissance usually absorbed one squadron, and since it was necessary to retain another squadron for aerodrome defence in the South Champagne area, it followed that operations from Rouen-Boos were usually limited in strength to a single squadron. Moreover, a strengthening of these patrols by Fighter Command aircraft was not possible, since from May 27th onwards Fighter Command was fully extended in providing cover for the Dunkirk evacuation.

It is therefore scarcely necessary to examine in detail how far the A.A.S.F. fighters could provide protection for the Somme area, but a catalogue of the occasions on which enemy aircraft were encountered during patrols from Rouen-Boos will yield at least one or two points of interest.

- May 23rd - None encountered.
- May 24th - No. 73 Squadron encountered 20 bombers escorted by 30 Me.110s.
- May 25th - Isolated enemy aircraft encountered.
- May 26th - (No patrols from Rouen Boos).
- May 27th - No. 501 Squadron encountered 24 He.111s escorted by 20 Me.110s.
- May 28th - None encountered.
- May 29th - None encountered.
- May 30th - (No patrols from Rouen Boos).
- May 31st - (No patrols from Rouen Boos).
- June 1st - No. 1 Squadron encountered 9 Me.109s.
- June 2nd - None encountered.
- June 3rd - No. 501 Squadron encountered 18 Me.109s.
- June 4th - None encountered.

From this it may be seen that on only two days out of thirteen were enemy bombing formations encountered. The explanation for this was not that the enemy bombers were not operating (for the British military forces in the Seine-Somme area complained of being bombed continuously), but that our fighter patrols were necessarily too weak and infrequent to afford complete protection. Usually a squadron of just under full strength carried out the first patrol: the second or third patrol might be reduced to a force of eight aircraft, or to a flight. The duration of such patrols was rarely longer than an hour: thus in effect the cover provided, apart from that supplied by French aircraft, might amount to three hours during the day by something less than a full squadron. When the enemy bombers were encountered, it will be noted that they were in some force, and were escorted. This apparently did not prevent the enemy suffering heavy losses on May 27th, when No. 501 Squadron was patrolling the Neufchâtel-Blangy-Abancourt area to protect the debussing of the 51st Division, newly arrived from their previous station in the Maginot Line. On this occasion the German fighter escort apparently made no effort to protect their charges, and the Hurricanes were able to get among the Heinkels and do considerable damage. But in general the situation was doubtless that our patrols were, by force of circumstances, too weak and infrequent to do very much.

(c) "South Component".

In connection with the operation of patrols from Rouen-Boos, some account should perhaps be given of the formation of what came to be known as "South Component". The origin of this may be found on May 19th, when evacuation of the R.A.F. Component squadrons became necessary. The Air Ministry then decided that three aerodromes would be required north west of Paris, from which six fighter squadrons could possibly operate, using them only as re-fuelling and re-arming points, and returning to bases in England. The French agreed to allot for this purpose Rouen-Boos, Etrepagny and Estrées St. Denis, which were all north of the Seine. Officers from Headquarters, B.A.F.F., were placed in charge of arrangements, petrol was obtained, servicing-sections and armourers were detached from the A.A.S.F; and on May 21st Air Commodore Cole Hamilton, then at Boulogne in the course of the R.A.F. Component evacuation, was detailed to take charge at Rouen. It was also decided that two landing grounds south of the Seine should be prepared for operations, and for this purpose Dreux and Beaumont-le-Roger were selected. Extra transport, personnel and ground defence elements were acquired from various military and R.A.F. oddments who were lost or straying in Rouen as a result of evacuation, and by May 22nd the three aerodromes north of the Seine were declared ready for operations. Operational control was theoretically to be exercised by the Air Ministry, B.A.F.F. being responsible only for maintenance.

During the next two days - May 23rd and 24th - use was made of the new organisation for both reconnaissance and fighter patrols. The Armoured Division supplied a Liaison Officer and Despatch-riders, and "Back Component" at Hawkinge was responsible for making Blenheim or Lysander sorties available. The A.A.S.F. fighter squadrons also began patrols from Rouen-Boos, but had to return to their

30.5.40
Document
No.33.

bases in South Champagne at night owing to lack of maintenance facilities. The following day, May 25th, the new organisation officially came into being, with the name of South Component. Operational control was on a somewhat confused basis at first, as there was an effort to make this a responsibility of Back Component at Hawkinge. In practice, however, the A.O.C.-in-C., B.A.F.F. was very much the more concerned with the new organisation, and on May 30th he is found writing to Air Vice Marshal Blount (A.O.C. Back Component): "D.C.A.S. told me I had nothing to do with South Violet (i.e. South Component), who was being controlled from Home. I did not take this too seriously as we have had to find them with everything administratively and up to date sent Cole-Hamilton both Reconnaissance and Fighters. ---- I do not see how on earth you at home can operationally control operations in Roger Evans' and 51 Division area, any more than say, 22 Group could have done for the B.E.F. before this Blitzkrieg started." Ultimately Air Marshal Barratt's operational authority was regularised as from midnight on June 4th, when Back Component at Hawkinge was disbanded.

3.6.40
Document
No.18.

From May 25th onwards the facilities of South Component developed until at the end of the month all five landing grounds were ready for operational work. Weapons for ground defence however, were very short, and the full total for the five aerodromes was: 230 rifles, 49 Lewis-guns (of which only 30 had mountings) and 11 Bren guns. On June 2nd arrangements for reconnaissance were placed on a more regular footing by the arrival from England of an Army Intelligence Liaison Section, which took over duty at Rouen Boos. Just as the organisation was progressing, however, the German threat to the South developed, and on June 4th Estrées St. Denis was evacuated. It had been in a particularly isolated position, near Compiègne, and its communications with Rouen-Boos had throughout been by air only. The remaining grounds North of the Seine, Rouen-Boos and Etrepagny, were placed on two hours notice to move, and it was thus that they had to operate during the opening days of the new German advance.

It will be seen that the work of the R.A.F. from the South Component grounds during the period May 23rd - June 4th was bound to partake of the improvisatory character of the organisation. Within this time nineteen Blenheim or Lysander sorties were made on reconnaissance over the Somme area, chiefly with aircraft made available from Back Component. The fighter sorties, with aircraft from the A.A.S.F., have already been mentioned, and their inevitable insufficiency noted. Apart from the limited number of aircraft available, and the extempore organisation, there was a further enemy to efficient operation in the form of the combined effects of weather and distance. Under the system of temporarily attaching aircraft from South Champagne or Hawkinge, for full operational work the weather needed to be suitable in South Champagne, Kent, the Rouen area, and the area to be covered by the reconnaissance or fighter patrol. This occurred infrequently: on May 30th and 31st for example, a fighter squadron took off from South Champagne for Rouen-Boos, but on both occasions soon ran into bad weather and was compelled to turn back. Thus the obstacles to the performance of work from South Component which would exercise a vital influence on the forthcoming Somme battles were indeed formidable.

V APPRECIATION OF THE MILITARY POSITION BY B.A.F.F.
HEADQUARTERS.

It is of some importance to see how the military situation in the period before the German attack to the South was appreciated at H.Q. British Air Forces in France. In general it can be said that Air Marshal Barratt and his advisers were under no illusions. On May 27th an appreciation was forwarded from H.Q., B.A.F.F. to the French and to the Air Ministry, which contained the following sentences:-

27.5.40
Documents
No.36 & 38.

"It is now thirteen days since the German Armoured Forces broke through the French defensive positions on the river Meuse and there has been as yet no effective counter-offensive, either to close the gap, or to re-unite the 1st Group of Armies and Belgian forces isolated in the North, with the French forces south of the rivers Aisne and Somme. All information tends to shew that the enemy is building up a considerable body of non-armoured forces in the "trou" created by the passage of his armoured forces, while he has by continued pressure on the flanks of the Belgian army and the 1st Group of Armies, compelled those forces to withdraw in a Northerly direction to cover the one port remaining in their possession - i.e. Dunkirk. It is therefore considered that the time for an effective counter-offensive to re-unite the Allied Forces has passed."

The appreciation went on to argue that, for any counter-offensive from the South to succeed, some part of the Northern Armies must remain in France until the Southern line was established, with a mass of manoeuvre behind it. Even then a counter-offensive could not begin for "a period of months or years". It was suggested, therefore, that a defensive line should be built up, aided by the presence of the Northern armies as long as possible: that the Southern Armies must take limited aggressive actions to prevent the Germans concentrating for a break-through in a single area: that a mass of manoeuvre must be created behind the Southern line: and that such a front should be gradually reinforced by the British and French as reinforcements became available. The paper concluded: "In the light of arithmetical strategy and of the degree of resistance which it has been hitherto possible to impose on the enemy, it may be argued that none of the above measures are possible. On the other hand, the above measures have the strength of being the only ones open to us. The difficulty of their execution will increase, rather than decrease, with the passage of time."

To this appreciation Air Marshal Barratt received a reply from General Georges the following day, May 28th, when it was certain that the Northern armies would no longer be able to influence the battle. General Georges expressed agreement with Air Marshall Barratt's general thesis on the necessity of a defensive front along the Somme-Aisne: but he added the following qualifications:

27.5.40
Document
No.44

"Pour permettre la réalisation de ce projet, il eut été avantageux que les Forces du Nord pussent continuer de retenir le plus longtemps possible une partie des forces de l'adversaire. La défection des Belges exclut cette possibilité.

Je voudrais vous dire encore que tous les efforts ont été faits pour essayer de réunir aux Forces du Sud les Forces Alliées du Nord isolées par l'ennemi. Siils n'ont pu être couronnés de succès du côté du Sud, la cause essentielle en est due aux bombardements systématiques de l'aviation allemande qui, en coupant nos voies ferrées, a retardé la concentration de nos Unités au Sud de la Somme et permis ainsi aux troupes motorisées allemandes d'établir un front sur la Somme face à notre dispositif."

Thus General Georges was able neatly to attribute the collapse of the Northern situation to the Belgians, and the failure of any French movement from the South to German bombing of the railways: but he was not apparently able to visualise any plan of campaign for the future which offered a chance of success. The Air Marshal must have been in the same situation: for he had expressly stated on May 27th that the establishment of the Southern front depended on continued resistance in the North, and by May 28th this was merely a question of holding the Germans long enough for our troops to escape from Dunkirk.

This bleak outlook was confirmed in the impressions of Captain Archdale, who had been acting as B.E.F. liaison officer with the 1st Group of French Armies. Captain Archdale's views, transmitted by Lt. Colonel Woodall to Air Marshal Barratt, and thence by him to the

C.A.S., were necessarily based on experience of the Northern Armies alone. But the picture they presented of the French Staff and troops in that area was a general criticism which was just as likely to be valid in other sections of the French forces, and was certainly one that gave little encouragement for belief in a rapid reversal of the Allied ill-fortune. This was the impression Lt. Colonel Woodall gained from Captain Archdale on May 26th and May 27th.

27.5.40
Document
No.

"The French Staff are highly trained in the academic aspect of their profession and the text-book solutions to a given military problem. The war of movement which the action of the German Forces has produced has made them seek for precedents in their training, rather than in an examination of the problem as it exists. As a consequence the comprehensive and often excellent orders which they issue almost invariably arrive long after the situation has so altered as to make their decisions inapplicable.

Many Formations, and especially the Mechanised and Armoured Cavalry, have fought excellently, but the "ad hoc" nature of plans and the lack of direction since the retirement began have vitiated most of their efforts. The troops are aware that many of the orders issued were not intended to be carried out, and therefore, although there may be the resolution to sell their lives dearly when the occasion arises, they are with Gallic logic not prepared to do so while plans are still entirely fluid."

28.5.40 Documents Nos. 41 & 42. Still worse was the report forwarded by Air Marshal Barratt to the C.A.S. on May 28th, relating to the views of General Georges' Third Bureau. Lt. Colonel Woodall, who had sought these views (which were not 'official' ones), expressed them to this effect: that there was no hope of an offensive from the South, indeed very little hope of a successive defensive except through an error in German strategy. Apparently a mass of manoeuvre was to be created between Abbeville and Paris ten divisions strong, largely by withdrawing troops from the Maginot line, and the French balance of some 35 divisions was to defend the 180 mile front from Montmédy to the sea. But the French were not optimistic about their own plan:

"I asked if it was considered that the 35 Divisions between Montmédy and the sea could be effective as a defence supposing the enemy to concentrate his forces on a selected portion of the front. I was told that the opinion of the French Staff was definitely NO.

I asked if the measures which were being taken could prevent the enemy so concentrating. I was told that the only interference with an enemy concentration was the disorganisation caused by air action against his communications. I asked if this disorganisation could be permanent. The answer was NO.

I asked then what was the view of the French Staff in regard to the development of the battle. I was told that, in effect, the only hope lay in the enemy diverting his attack against England, or else attacking in the direction of the Mass of Manoeuvre. In the latter case it was hoped that the Mass of Manoeuvre would cause the enemy heavy loss."

29.5.40 Documents Nos. 24 & 25

The following day, May 29th, Air Marshal Barratt forwarded to the Air Ministry Lt. Colonel Woodall's appreciation of the general situation, in which he dismissed as unlikely a prior German assault on England, and forecast that the Germans would rapidly attack against Paris and Rouen. This move, he thought, would be combined with another attack between Montmédy and Amiens sufficient to prevent the French concentrating to meet the threat to the Lower Seine and the capital.

30.5.40 Document No. 10

On May 30th a report forwarded by Brigadier Swayne to the War Office gave equal ground for discouragement. Two British officers attached to B.A.F.F., H.Q. (Lt. Col. Woodall and Capt. Oxborrow) on reconnaissance on May 29th North of Soissons along the Oise Canal front - one of the links between Somme and Aisne - had discovered the following state of affairs: "Bridges destroyed but no organised defensive position being prepared by the French. Sentry posts near Canal on roads not dug in or wired. No posts seen between roads. Troops mainly in villages doing nothing. No apparent organisation or work in progress. Few obstacles on roads made of country carts not covered by fire. No sign of anti-tank mines. Impression enemy could walk through when he liked." Apparently the commander of the division concerned had been replaced, and the division was about to be relieved by a better one. The following day, May 31st, a report from the same source was better, but hardly cheering:

31.5.40
Document
No.3

"Further visit to-day to front North of Rheims shewed conditions much better although position far from strong. --- Main danger however, thinness of troops on ground and lack of material. Some divisions now holding twenty six kilometres which will be reduced to sixteen on arrival two more divisions." Taken in conjunction the two reports present a depressing picture of a position against which the Germans were to attack within less than a week.

In sum, then, it can be seen that in the closing days of May, neither the French nor the British in France had any great hopes of the future situation. It is against this background, coupled with the ever-present factors of administrative possibility and the necessities of Home Defence, that the question of fighter reinforcements must be again discussed.

IV THE DEMAND FOR FIGHTER REINFORCEMENTS

26:5:40.
Document
No. 33

On May 26th, Air Marshal Barratt had pressed for two or three additional fighter squadrons to operate from aerodromes in the Rouen area: and he had transmitted a request from General Vuillemin that cover for military operations near Arras should be provided from Great Britain. This, however, had occurred because the Air Marshal was given to understand by General Vuillemin that the French were about to launch a great offensive northwards on May 27th - "the big show of the war." When it became apparent, as it rapidly did, that the French were neither willing nor able to carry out such an operation, the situation was naturally changed. Moreover, in the next few days Fighter Command was extended to the utmost to provide cover for the Dunkirk evacuation.

31:5:40
Document
No. 37

On May 31st, however, at the meeting of the Supreme War Council, it was agreed that the British Government would consider the question of military and air reinforcement to France. It was, moreover, on this day that General Vuillemin put forward a renewed demand for fighter squadrons on a most comprehensive scale. French fighters, amounting now to only 350 aircraft, must, he wrote; be reinforced by British fighters "d'une facon massive." The whole British fighter force of 620 aircraft (or if not the whole, at least a half of it) must, he maintained, be prepared to intervene if the German assault came on the Lower Somme. This could be done from British bases. But preparations must also be taken to enable at least 20 squadrons (320 aircraft of the 620) to act in case of German attack in regions other than the Lower Somme. For this eventuality, it would be necessary for the aircraft to operate from bases in France, in the A.A.S.F. area, under the command of Air Marshal Barratt. It was essential that a rapid decision should be taken: and the provisions demanded by the General were, he concluded, a matter of life and death for the French Army, and in consequence for the two countries.

This far-reaching demand of General Vuillemin's was forwarded by Air Marshal Barratt the following day to the C.A.S. with these comments:-

1.6.40.
Document
No. 36.

"He (Vuillemin) was in a very depressed state of mind and said that unless the fighters in France were reinforced to the maximum extent possible, the German bombers would have their own way, with the result that the infantry would not hold their present positions, and that we would lose the war. I pointed out that it was up to the infantry to take action against the dive-bomber, that the British troops had done so with a certain amount of success and that the war was not going to be won by fighter squadrons but by the fight on the floor."

/Vuillemin ...

Vuillemin said it was a vicious circle. If the bombers had their own way the infantry would not hold, whereas if the fighter protection was strong and provided cover for the infantry they would be more likely to resist.

I said it was no use putting down extra squadrons behind the lines if their security could not be assured, and I added that we had lost something like sixteen fighter squadrons through the front line giving way. The fact remains, however, that if the battle started to begin in the South, we should certainly want extra fighter cover."

The A.O.C.-in-C., though of course he could not endorse the whole of General Vuillemin's proposition, went on to urge that preparations should be made for the control of reinforcing fighter squadrons by the institution of a Fighter Group. Such a commitment would render it quite impossible for B.A.F.F. to provide servicing facilities for bomber action against Italy, a project for which arrangements were now being made. X

The A.O.C.-in-C. also pointed out that if the new line gave, and evacuation were entailed, fighter cover for this would not be possible from England, and would have to be undertaken by his resources.

1.6.40.
Document
No. 36a
and 36b.

A somewhat different reaction to Vuillemin's demand was that of Group Captain Strafford. In a memorandum on the subject, dated June 1st, he considered the general aspects, and came to these conclusions:-
Fighters cannot be efficiently or economically employed except as part of an organised air defence system; such a defence system was obviously best provided in Great Britain, for hope of the French holding any line was small; thus the proper handling of the British Air Force would entail "full and consistent employment of our heavy bombers - against carefully selected vital targets inside Germany. This in its turn it is hoped will compel the enemy to retaliate against similar targets in England. - His Air Force will thus for the first time be brought up against a modern and fully organised air defence system with results in our favour of which there can be little doubt."

Such a view could not, however, be that of the Commander responsible for British Air Forces in France, and this Group Captain Strafford recognised in an additional minute, where he pointed out that the air forces in France should be made into a balanced force, or else withdrawn. Political reasons, however, would prevent withdrawal, just as they would urge last minute fighter reinforcement - the most uneconomical of all methods. In substance then, Group Captain Strafford's views, at first sight very different, were not really dissimilar from those of the Air Officer Commanding-in-Chief. Ideally the best policy might be to send no reinforcements; but in practice the A.A.S.F. must be made into a force capable of self-defence, and thus able to answer inevitable calls upon it for action; and if reinforcements were to be sent they had better be sent soon rather than late, when they would be

J.P.(40)
418

Meanwhile, the broadest questions relating to the continuation of the war were being considered in London by the Joint Planning Committee. The substance of their dilemma, in so far as it concerned the question under review was this:- France must be kept in the war, and therefore supported; but we had already expended 432 fighters between May 10th and May 31st, and could only detach reinforcements to France at a risk to our own security. Moreover, no degree of fighter support could make the difference between defeat and victory "unless the French army organises its defence against armoured fighting vehicles and decides to offer resolute resistance in the face of dive-bomber attack". The via media between these facts was expressed in the following conclusion by the Joint Planning Committee: "The immediate assistance that we can give in fighter aircraft is limited by the number that can be serviced by existing organisations in France. No fighters should be sent to France until a German attack is launched, when the equivalent of six additional squadrons could be operated from France at a risk to our security at home".

C.O.S.(40)
421

These views were considered by the Chiefs of Staff Committee, when they were deliberating what reply should be given to the pressing appeal for help made by M. Reynaud on June 2nd. In terms of air support, the recommendations of the Chiefs of Staff, made on June 3rd, were to this effect: that the six bomber and three fighter squadrons in France should be brought up to full strength; that some army co-operation squadrons should be sent out when the new B.E.F. of two divisions and Corps troops was established; and that, as before, the assistance of the British metropolitan bomber force would be forthcoming against profitable targets. But to the demand for further fighter squadrons the Chiefs of Staff gave a most emphatic negative: "We most strongly recommend that no additional fighters should be sent to France since even the three squadrons referred to above (i.e., those already there) cannot be maintained in circumstances of heavy wastage, except at the expense of Home Defence Squadrons". The reasons behind this recommendation were pressing enough, and were forcibly expressed by the Chiefs of Staff: "Every fighter withdrawn from this country increases the risk of a decisive air attack on, or a successful invasion of, this country" - and - "The maintenance of both land and air forces operating in France will be a permanent drain which in the case of fighters, cannot be sustained without taking unacceptable risks at home".

3.6.40
Document
No.19

On the day that this recommendation was made in London, Air Marshal Barratt was representing to the Air Ministry a contrary policy. Urging that the French were perhaps rallying, and that every measure must be taken to increase their will to resistance, the A.O.C.-in-C wrote: "To permit the British Air Forces in France to operate, it is essential that it should have a high proportion of fighter aircraft, organised and established in France with the utmost rapidity so that they are ready, when the attack comes, to inflict the heaviest possible losses on the German Air Forces in the most economical manner. ---- It is considered, therefore, essential to make the B.A.F.F. a balanced force immediately by the provision of Fighter Squadrons in France fully organised to permit their aircraft to operate efficiently before the crisis arises. To wait, and throw the fighters in, after the crisis has arisen, can only lead to inefficiency and defeat in detail. ---- It is suggested that only two logical courses remain open:-

- (a) To withdraw the British Air Forces from France
- (b) To bring the fighter squadrons up to a total strength of ten, with a group organisation for control, to permit the British Air Forces to sustain their effort,

....(and, after arguing that the first course could not be adopted because it might lead to the complete cessation of French resistance). --"In conclusion, I am convinced that British fighter assistance will be needed in France, and that the only economical method is to provide squadrons now. The dangers of a transfer of aircraft to France at the last moment have already been experienced, while support from fighters based in England, which in default of having fighters in France, might have to be given, could only lead to excessive strain and losses in crews and aircraft out of all proportion to the results achieved".

4.6.40 The same day, June 3rd, General Vuillemin again returned to Document what Air Marshal Barratt once dubbed "his theme song" - the need No.21 for more British fighter squadrons. In a letter beseeching Air Marshal Barratt to press this policy on the British authorities, he referred to the additional danger from Italy and made the following positive proposals:-

- (1) Envoi a priori et dès maintenant de 10 Squadrons de Chasse britanniques qui seraient stationnés dans la Région d'Evreux-Dreux et qui prendraient a leur compte l'action au profit des Forces Terrestres a l'Ouest du dispositif français entre la ligne Pontoise-Peronne et la mer.
- (2) Preparation de l'envoi extrêmement rapide en France d'une deuxième série de dix autres Squadrons qui viendraient se baser dès la première journée de bataille sur les terrains déjà occupés par les Britanniques.

Such a disposition, the General contended, would enable the Squadrons to return to England within a day if the enemy committed the strategic error of assailing Great Britain before renewing the attack on France; and it was, he once more concluded, for Great Britain as for France a matter of life and death.

ibid This renewed French demand was forwarded to the C.A.S. the following day (June 4th) by Air Marshal Barratt, with a covering letter in which the Air Marshal stated: "I wish, once again, to reiterate that the fighter forces at my disposal are completely inadequate for the work to be done, and would urgently request that the demands in my letter (of 3rd June - summarised above) may receive sympathetic consideration".

3.6.40 Document No.19. Indeed, the cry from all parties in France was the same. From the 24th May onwards, the Armoured Division and then the 51st Division had requested fighter protection in a measure which could not possibly be fully met from resources in France. And on June 3rd, Air Commodore Cole Hamilton, A.O.C., South Component, is found writing to Air Marshal Barratt, pointing out the imminent German threat on the Lower Somme, and stating: "as far as the operations with which I am directly interested are concerned, our air forces are too small to afford any great assistance".

/It may

It may be assumed that the French pressure, together with the urgent necessity of sustaining our ally's will to resistance, was responsible for the fact that the Chiefs of Staff recommendation of no further fighter reinforcement was not entirely accepted. The Prime Minister was vividly Document No. 22 impressed with the political undesirability of returning a flat negative to M. Reynaud's plea; accordingly on June 4th he sent a message to the French Premier, through Brigadier Spears, that the reinforcement question would be further considered. Nevertheless he added a private message to Brigadier Spears; "You should prepare them for favourable response army but disappoint about air". Among the many difficulties was the fact that, owing to the deficiencies in squadron strength since the Dunkirk fighting, to send, for example, four full squadrons to France would have been to rob Fighter Command, not of four, but of seven squadrons.

But the time for deliberation about such questions was passing; on the morning of June 5th, the German attacks to the South were set in motion, and the second chapter of enemy successes began. At all events, it had now become indisputable that the Germans intended to finish off France before beginning on Great Britain; and during the afternoon or evening of June 7th, the fighter reinforcement question was settled by an order to despatch two further squadrons the following day. In addition to this, other fighter squadrons were to operate from British bases.* The despatch of two squadrons could hardly be regarded by the French as more than a token; but from the point of view of the Advanced Air Striking Force, they were useful, since they increased its power of self-defence. At the same time, they made more possible the provision of some air cover for later evacuation from Cherbourg, Brest, Nantes and St. Nazaire. This, however, was scarcely the consideration which motivated the French in their repeated requests.

* Details of the arrangement are given under June 7th - page

VII STRENGTH OF OPPOSING MILITARY FORCES, JUNE 5TH.(a) The German forces

What were the military forces facing one another when the German attack began, and in what condition did they find themselves? Of the 150 divisions which the Germans had marked for operations in the West, 20 were in the South-West corner of Germany, facing the Franco-German frontier, and 130 were spread throughout Western Germany, Holland, Belgium, Luxembourg and Northern France. Of these 130 divisions, by June 7th the following had been identified in the Somme-Aisne fighting, and from the Aisne across the Meuse to the S.E. corner of Luxembourg,

In the Somme area:

Armoured divisions: 3rd, 4th, 5th, 6th, 7th, 9th. Total, 6 divs.
 Motorised divisions: 2nd and S.S. Division Total, 2 divs.
 Infantry divisions: 9th, 12th, 32nd, 33rd, 44th, 46th, 57th, 87th, Total 8 divs.

Between Somme and Aisne and along the Aisne

Armoured divisions: nil.
 Motorised divisions: nil.
 Mountain divisions: 1st Total 1 divn.
 Infantry divisions: 3rd, 5th, 6th, 18th, 21st, 23rd, 25th, 26th, 45th, 50th, 62nd, 72nd, 94th, 98th, 263rd, 290th, 291st, 292nd.
 Total 18 divs.

From the Aisne to the S.E. corner of Luxembourg

Armoured divisions: nil
 Motorised divisions: nil
 Infantry divisions: 10th, 15th, 17th, 24th, 34th, 36th, 58th, 71st, 73rd, 76th, 251st. Total 11 divs.

Moreover, 3 further infantry divisions as yet not precisely located were thought to be along the Aisne, and 6 more in the Ardennes. If these figures are added together they give a total of 6 armoured, 2 motorised, 1 mountain and 46 infantry divisions, or 55 divisions in all. Behind this force was, of course, a great number of divisions in Northern France and Belgium, including the remaining 4 armoured and 4 motorised divisions in the area Boulogne-Calais-Dunkirk-Armentieres, and 20 or more infantry divisions in the neighbourhood of the Scheldt and the Lys. It can be said then that the Germans had 55 divisions deployed for battle within two days of their attack opening, and that they had many more divisions behind these which could move up in case of need, or to exploit an opportunity.

(b) The Allied Forces

What had the Allies to oppose to this array? The British Forces are soon enumerated. There was the 51st Division, which had just suffered in its attack on the Abbeville bridgehead, and the Armoured Division, which had lost half its tank effectives a few days previously and was in reserve. Beyond this there was only the impromptu "Beauman Division", formed on May 31st from Lines of Communication troops in the Rouen and Dieppe sub-areas. The British contribution can hardly be assessed at more than two divisions.

22-24.6.

40.

Document

No.9

The French forces had, like the British, just experienced considerable losses in the Northern fighting. According to a paper prepared for the French General Staff, the French had lost, in the battles of the Meuse and of the North, 24 infantry divisions, 2 cavalry divisions, 3 light mechanised divisions, and one armoured division.

/There

There remained to them, for the defence of the Somme - Aisne line (i.e. from the sea at St. Valery-sur-Somme to Longuyon on the Maginot line) the Third and Fourth "Groups of Armies" - i.e. 43 infantry divisions, 3 armoured divisions and 3 cavalry divisions. Many of these, however, were in very bad case: some of the infantry were in process of formation and 10 of the 43 divisions included only 2 infantry regiments (in place of the normal three) and 2 artillery brigades ('groupes'). Moreover the 2nd and 3rd armoured divisions had only 86 and 50 tanks respectively (in place of the normal 150), and the total of armoured fighting vehicles possessed by the three cavalry divisions was no more than forty. It was estimated that the three armoured and the three cavalry divisions had together less armour than one armoured and one cavalry division up to full strength. Moreover, the French considered that the Germans had been able, by June 4th, to replace all losses in their panzer divisions, bringing them up to an estimated establishment of some 500 tanks each. Thus against the possible use of 5000 tanks by the ten German armoured divisions, the four Allied armoured divisions (3 French, 1 British) could muster no more than some 300 tanks.

X

The organisation into armies now ran thus:

Third Group of Armies (General Besson)

Tenth Army (General Altmeyer)

Seventh Army (General Frère)

Sixth Army (General Touchon)

} For the defence of the
Somme - Ailette line
from the Channel to
the Aisne.

Fourth Group of Armies (General Huntziger)

Fourth Army (General Reguin)

Second Army (General Freydenberg)

} For the defence of
the Aisne and across
the Argonne to the
Maginot Line at
Longuyon.

Second Group of Armies (General Pretelat)

Third Army

Fifth Army

Eighth Army

} For the defence of the
Maginot Line and the
Rhine

British Military forces from June 5th onwards acted with the Xth Army only. R.A.F. operations in 'close support' benefited the 3rd Group of Armies (and mainly the Xth Army).

Beyond these forces in the Third and Fourth Groups of Armies, the French possessed the Second Group of Armies, for the defence of the Maginot Line and the frontier with Switzerland. This Group consisted of Fortress and Class 'B' (2nd Reserve) divisions only. The Fortress divisions were useless for service outside the fortified zone, since they had neither transport nor traction for guns: the 'B' divisions were composed of the oldest military classes.

Quite apart from the appalling deficiencies (notably in anti-tank and anti-aircraft guns), the French divisions were fatally handicapped by the length of line they had to hold. It was reckoned that a division might normally be expected to hold ~~six~~ kilometres; 17 divisions, however, were now trying to give cover from the Channel to the Aisne, a distance of 240 kilometres (or 1 division per 15 kms.) and 10 divisions were stretched along the Aisne and across to Longuyon, a distance of 120 kms. (1 division per 12 kms.). The remainder (apart from those in the Maginot Line) had to be held in reserve to intervene along whatever turned out to be the main directions of attack.

Thus in sum, neglecting the forces in the Maginot Line (which were now insufficient to hold a frontal assault), the French and the British could together muster 44 infantry, 4 armoured and 3 cavalry divisions - a paper figure which greatly exceeded the real strength, which was nearer 35 - 40 infantry divisions, 2 armoured divisions and 1 cavalry division. Against this force (to which no significant reinforcement was possible unless the struggle went on for many months), the Germans could immediately range 55 divisions (including 6 armoured), and have a call on a further 55 divisions (including 4 armoured) in Northern France and the Low Countries. Thus the Germans had not only an initial superiority in forces engaged when the new battle opened, both in numbers and equipment, but they could also draw on reserves to an extent completely impossible to the French. It was therefore not surprising that General Weygand considered the Somme - Aisne line the last which the French could possibly hope to hold.

VIII STRENGTH AND DISPOSITION OF THE GERMAN AIR FORCES
JUNE 5TH.

Appendix

It is, of course, impossible to give anything more than a rough estimate of the strength and disposition of the German Air Force at the date when the advance to the South began. From the estimated Order of Battle for a few days later, and from the various Air Ministry Intelligence summaries the following conclusions may be reached:-

- (1) From an early date (16th May) all units of the German Long-Range Bomber Force except K.G.26 (in Norway) and K.G.4. had been identified as operating on the Western Front. One Gruppe of K.G.4 was also later identified (May 20th), and thus of the German first-line total of 2,000 long-range bombers, between 1700 and 1800 were disposed for operations in the West. Moreover these units were in many cases now using aerodromes in Holland, Belgium and Northern France, or else operated from Rhineland aerodromes rather than returning to bases in Central and Southern Germany. Thus, for example, one Gruppe of K.G.1 was based at Brussels, and another at Vitry-en-Artois: one Gruppe of K.G.4. was at Amsterdam: one Gruppe of K.G.28 was at Doullens: one Gruppe of K.G.77 was at St. Hubert and another at Libramont. It may be said then, of the German long-range bombers, that many of them had materially abbreviated the distance they would have to cover for operations over the French battlefields: and that eight-tenths or nine-tenths of the entire first-line force was prepared to intervene in the battle. These figures, of course, take no account of losses inflicted during the opening weeks of the campaign: many of these would have doubtless been made good from reserves, but it is not possible to determine to what extent this had occurred. A few instances of Geschwader strength were obtained by Air Ministry Intelligence sources, and these gave a strength of about 75% establishment, with about 50% daily serviceability.
- (2) The bomber-reconnaissance forces showed a corresponding disposition: of the first-line establishment total of 552 aircraft, all except 36 in Norway and 24 unidentified - i.e. a total of 492 aircraft - were disposed for possible operations in the West.
- (3) The dive-bomber formations, with the exception of one Gruppe possibly based in Norway, were all based in Northern France or along the Western Front area. This would give an establishment first-line total of 468 dive-bombers, nearly all Ju.87, for further operations in the West.
- (4) The German fighters had almost entirely taken up positions for operations on the western battlefront. Apart from two Gruppen in Norway, nine Gruppen in Germany, and two unidentified Gruppen, the remaining twenty-five Gruppen were by June 11th all based in
 /Holland

Holland, Belgium or Northern France. Thus of an establishment total of 1550 first-line fighters, 975 were in forward positions. The estimated figures of German fighters operating from French and Belgian aerodromes given in Air Ministry Intelligence Summaries during the first week of the new German offensive appear thus:-

- 5th June - about 250 fighters operating from aerodromes on a line St. Omer-St. Pol-Cambrai-St. Quentin-Mezieres.
- 7th June - about 350 fighters located on aerodromes in area St. Omer, Namur, Mezieres, Laon, Abbeville,
- Week 6th - 13th June - about 550 fighters operating from landing grounds in South Belgium and occupied part of Northern France.
- 14th June - a total identification of between 800 and 900 fighters in occupied areas of Northern France and Southern Belgium.

Moreover, German fighter units, even in advanced positions, apparently maintained a very high rate of serviceability, and instances were found of Gruppen having 34 or 35 Me. 109s ready for action out of an establishment of 39.

From the above figures it may at any rate be concluded that the Germans had made rapid use of captured aerodromes, and had brought forward most powerful fighter forces, capable of providing escorts in great strength to their bomber and reconnaissance aircraft.

- (5) Of the Army Co-operation, or Short Reconnaissance, forces, nearly all Gruppen had naturally been identified on the Western Front, the exceptions being an unidentified formation and Gruppe 13, which was based in the Upper Rhine sector. Thus of an establishment of 400 first-line Army Co-operation aircraft (principally Hs. 126), 324 were thought to be operating on the Western Front.

In sum, then, the Germans could bring to bear on the Western battlefield first-line establishments of some 1,700 long-range bombers, 492 bomber-reconnaissance, 468 dive-bombers, 975 fighters and 324 army co-operation. If an actual strength of 75% is substituted for these establishment strengths, it will still be apparent that the German force was considerably greater than that which the Allies could oppose to it.

IX STRENGTH AND DISPOSITION OF ALLIED AIR FORCES,
JUNE, 5TH.

(a) British: On June 2nd and 3rd the A.A.S.F. moved from its South Champagne aerodromes to new locations in the Le Mans-Orleans area. This move, undertaken partly to secure the A.A.S.F. from a possible German advance across the Aisne and Marne, served several purposes. It brought the force into a more convenient position for direct intervention in the forthcoming struggle along the lower Seine, while at the same time it shortened lines of communication with the base area at Nantes. An accidental advantage was that the force would now be nearer to possible ports of evacuation should the campaign go badly. The move was not marked by the chaotic character of the first move from the Reims to the South Champagne area on May 16th, for its necessity had been foreseen some days beforehand: the A.A.S.F. was now, since the withdrawal of four squadrons and the provision of extra transport, almost a mobile body: and the Germans, engaged in the northward battle, were occupied elsewhere. All the same the provision of the landing-grounds and the various facilities entailed a considerable work not only of administrative but of diplomatic ability, since co-operation of higher French authorities had sometimes to be obtained to overcome the not infrequent resistance or inertia of the lower.

Although the A.A.S.F. was now in general abandoning the South Champagne area, operations against German communications in North East France and in the Ardennes were still contemplated. Hence it was desirable to retain some advanced landing grounds in the old locality. For this purpose a separate advanced operational H.Q. and a mobile servicing organisation were formed, so that up to one fighter and two bomber squadrons might be operated from the two selected grounds, Echemines and Faux-Villecerf. A further reason for the retention of an advanced operational H.Q. was that in its new location at Maides the A.A.S.F. suffered from completely inadequate land-line facilities both with the advanced elements near Troyes, and with the A.O.C.-in-C., B.A.F.F. at his advanced H.Q. at Coulommiers.

By now the remnants of the four bomber squadrons withdrawn into reserve at Nantes had all been returned to the United Kingdom and the following was the disposition of the A.A.S.F. when the moves of June 2nd and 3rd were completed:-

(Orleans)

H.Q., B.A.F.F. ("North"-Advanced)	- Coulommiers.	
H.Q., B.A.F.F. (Back)	- Olivet, (South of Orleans)	
H.Q., A.A.S.F. ("East"-Advanced)	- Troyes	
H.Q., A.A.S.F. (Back)	- Muides (near Blois)	
<u>No.75 (Bomber) Wing H.Q.</u>	- Chateau Rocheux	} In Le Mans - Orleans area; but Fighters liable to operate from "South Component" grounds (Rouen-Boos, Etrepagny, Estrées St. Denis, Dreux, Beaumont- le-Roger): and bombers and fighters liable to operate from South Champagne grounds (Echemines and Faux- Villecerf).
No.88 (Bomber) Squadron: Battles	- Herbouville	
No.103 " "	- Herbouville	
<u>No.76 (Bomber) Wing H.Q.</u>	- Montoire	
No.142 (Bomber) Squadron: Battles	- Houssay	
No. 150 " "	- Houssay	
No. 12 " "	- Sougé	
No. 226 " "	- Sougé	
<u>No.67 (Fighter) Wing H.Q.</u>	- Laigne, near Le Mans	
No. 1 (Fighter) Squadron Hurricanes	- Chateaudun	
No.73 " "	- Le Mans	
No.501 " "	- Le Mans	

These forces represented an initial equipment of 96 bombers and 48 fighters: they were now far below strength, but it had been decided to bring them up to full establishment: and they were soon to be reinforced, on June 8th, by two further fighter squadrons (No.17 to Le Mans: No. 242 to Chateaudun). The total British Air Forces station in France eventually available for the battles on the Somme and Seine may thus be considered as 96 bombers and 80 fighters, though only about half this force was available when the German attack opened on June 5th. To compare the strength of the opposing forces, however, the available aircraft operating from Great Britain must be added, together with the French totals.

The Squadrons of Bomber Command which were in a position to carry out operations over the continent were all, in fact, so employed. These were:-

No.2 Group - Blenheims: Squadrons 107, 110, 21,
82, 15, 40,
No.3 Group - Wellingtons: " 37, 75, 9, 38,
115, 99, 149.
No.4 Group - Whitleys: Squadrons 10, 51, 77,
102, 58.

/No.5

No.5 Group - Hampdens: Squadrons 61, 144, 49,
83, 44, 50.

At 16 Initial Equipment, this represents a force of 384 first-line operational bomber aircraft in squadrons. Of these, it must be remembered, only the Blenheims were for use in day operations.

The aircraft of Fighter Command must be differently considered. They could not intervene in the battle unless it were within reach of English bases, and this would only apply while the struggle was in the North of France, except for activity against the German rear. As the Germans penetrated to the Seine, Fighter Command's capacity for intervention on the battlefield would gradually disappear. Moreover Fighter Command had been seriously extended over the Dunkirk operations: many of its squadrons were in need of rest and re-equipment; and it had pressing duties in the defence of Great Britain which could not be neglected. Furthermore, the shortage in regard to certain items of fighter equipment was acute - V.H.F. R/T equipment for example, and, most essential of all, certain incendiary ammunition. All these factors meant that Fighter Command was not anxious to throw more than absolutely necessary of its resources into the French campaign. The A.O.C.-in-C., Fighter Command, was, in addition, convinced that if the German bombers came up against the air defence system of Great Britain they would suffer heavily, whereas nothing like the same results could be guaranteed over France, where methods of interception were by comparison very undeveloped. Everything therefore pointed to the desirability of restricting, rather than enlarging, Fighter Command's commitments over France.

In actual fact, during the period 5th-22nd June, seventeen of the Fighter Command squadrons were employed at one time or another on duties over France. Of these, squadrons 601 (20 patrols), 56 (17 patrols), 79 (16 patrols), 151 (15 patrols), 145 (15 patrols), 32 (14 patrols), 615 (13 patrols) were employed fairly constantly; squadrons 245 (9 patrols), 604 (8 patrols), 213 (6 patrols), 74 (6 patrols) were employed less intensively: while squadrons 65 (5 patrols), 54 (4 patrols), 43 (3 patrols), 17 (2 patrols), 609 (1 patrol) were employed very little. The most that ever operated on one day was ten squadrons (June 11th and 12th - principally to protect the 51st Division attempting evacuation from St. Valery-en-Caux). If, however, the full figure of seventeen squadrons is taken as representing the force which could be spared or profitably employed for French operations, a total of 272 fighter aircraft (at 16 Initial Equipment) is to be added to the 48 (later 80) fighters of the A.A.S.F.

The British reconnaissance aircraft available for the battle were extremely few. The Blenheim and Lysander squadrons had suffered severely in the operations and evacuation of the R.A.I. Component, and no complete formations had been left in France. After Back Component at

Hawkinge was disbanded on June 4th, reconnaissance duties fell largely into the province of B.A.F.F., but the force provided was extremely slender. It consisted of a few aircraft detached in turn from the Blenheim reconnaissance Squadrons returned to England and sent to France for a few days' duty, either to Air Marshal Barratt's H.Q., or to the South Component H.Q. In addition to this, Air Marshal Barratt still had his special photographic reconnaissance Spitfires, of No. 212 Squadron. Beyond this, reconnaissance had to be carried out by the A.A.S.F. Battles and Hurricanes, supplemented by information collected from our bombers and fighters returning to their home bases after an operation over France. Although these supplementary means of reconnaissance existed, and although several Blenheim squadrons existed which could bear their share in sending across reconnaissance reinforcements to France, it can thus be stated that not more than two reconnaissance squadrons were actually in line for the battle.

(b) French

Of the French strength and disposition at this date, it is not possible to speak with exactitude. The latest Order of Battle communicated to us was apparently that for May 6th, before the campaign opened. It can be assumed that the aviation which had formed an integral part of the First Group of Armies, now no longer existed - that the 'Observation' and 'Reconnaissance' squadrons attached to the Seventh, First, Ninth and Second Armies had been virtually wiped out. On the other hand, the position in regard to the forces not allotted to armies or corps, seems to have been no worse than at the outset of the campaign. There are no figures available for the position on June 5th, but later figures supplied by General Vuillemin, indicate that the French Air Force was stronger at the armistice in aircraft 'existing' in the first line squadrons, than it was on May 10th (1075 aircraft instead of 976). General d'Astier has confirmed this,³⁸ and has stated that though he left his squadrons to operate till the last possible moment in the path of the German advance towards the Channel, he succeeded in pulling them out to the South and saving them. It will thus, perhaps, not be amiss to assume that the French Squadrons on June 5th, included roughly what they had possessed on May 10th, with the exception of the forces allotted to the First Group of Armies. This would have given the French on June 5th a total of between 50 and 100 bombers, and between 400 and 500 fighters (of which over 100 were either night fighters, or disposed for possible operations against Italy rather than Germany). In addition to this, there were the reconnaissance and observation aircraft, which we know had suffered severely in the opening battles, which had small reserves, and which had no factory output for replacement. These probably amounted to about 250 aircraft.

22-24.6.40
Document
No. 10

³⁸ in a personal interview to the narrator. Jan. 23, 1943.

(c) Summary of Opposing Air Strengths

If the opposing air forces are contrasted, it will perhaps be found that on June 5th, the position stood thus: - that the Allies could oppose some 550 bombers (of which nearly 400 - three-quarters of them unsuitable for day operations - were based in England), to the German total of 1700 long-range bombers and 468 dive-bombers. Against the German force of 975 fighters, the Allies could pit about 800, but nearly 300 of these were operating from British bases, and thus could cover only a tiny diminishing portion of the battle front: while another 100 were night fighters or disposed for protective operations against Italy. Finally, to counter the German total of nearly 500 bomber reconnaissance and 324 army co-operation aircraft, the Allies could muster only some 300 reconnaissance and observation machines. It is thus apparent that for the campaign in general from June 5th and onwards, the Allies had to accept an inferiority of something like one to two in fighters: one to three in army co-operation and bomber reconnaissance: and one to four in long-range and dive bombers.

THE SECOND GERMAN OFFENSIVE - THE BATTLE OF FRANCE-JUNE 5th - 18th.JUNE 5THMILITARY SUMMARY

The German offensive which began on June 5th covered a very wide area. In particular, attacks were pressed at the following points:-

- (1) An advance South-West from St. Valery-sur-Somme and Abbeville which by nightfall forced the 51st Division two-thirds of the way back towards the Bresle. The line in this sector at the end of the day ran from the sea at Ault through Fressenneville and Vismes to Oisemont.
- (2) An advance South from Amiens by Panzer formations in which the employment of 300 tanks was reported. By night this had penetrated some 10 miles to Esertaux and Guyencourt. The tanks had apparently forced their way through the French line, which was still holding back the German infantry.
- (3) An advance South-West from the Peronne area, in which four hundred tanks were said to be participating. By nightfall this had penetrated past Chaulnes and Meharicourt nearly as far as Roye.
- (4) One advance South West from the La Fère-Chauny area which crossed the Crozat canal on the north-east of Chauny, and the Ailette and Oise Canal on the south of Chauny. These prongs during the day penetrated to the line Bretigny-Besme-Guny.
- (5) An advance south west from the Laon area which crossed the Ailette and Oise Canal and reached Chavignon, a midway point on the Laon-Soissons road.

There were other crossings of the Somme and the links to the Aisne, but the above constituted the main threats. It will be seen that these attacks were all in the general direction of Paris, or else of the Lower Seine.

BOMBING OPERATIONS (a) Near the Somme

No attempt was made by the British bombing forces to intervene against the new German offensive until the evening. Following a reconnaissance report of the presence of tanks on the Peronne-Roye and Amiens-Montdidier roads, an attack was launched against these by 11 Battles of the A.A.S.F. The Battles took off at about 1930 hours, and though they saw no great forces they bombed the two roads, and attacked various vehicles on the neighbouring side roads. One attack, however, was made against tanks proceeding westwards at Tricot, seven or eight miles South of Montdidier. The Germans had not then penetrated as far south, and an attacking Battle was itself attacked by six aircraft which the pilot indignantly recognised as Moranes. The inference was that the tanks were French, and it may be noted in passing that the recognition of armoured vehicles from the air always presented a very great difficulty to the pilots in France. Apparently a frequent method was to fly low and attack if the convoy opened fire on the aircraft, a procedure which naturally left room for mistakes on both sides.

Bomber Command also operated over France late in the evening, sending 24 Blenheims from Wattisham at 1950 hours. Their mission was to attack A.F.V.'s and transport in the triangle Albert-Bapaume-Peronne, thus striking at German forces immediately behind

June 5th

behind the new battlefront. The Blenheims had fighter cover provided over the area by two squadrons of Fighter Command, which combined this duty with a sweep over Abbeville - almost the only operation over France by Fighter Command aircraft during the day. None of the Blenheims observed any results; most of them aimed their bombs against roads and railways, but 7 of the 24 aircraft for one reason or another failed to drop their bombs in the target area. One of the Blenheims was lost.

BOMBING OPERATIONS: (b) By night. Communication in France.

During the night of June 5/6th Bomber Command attacked the communications of four towns through which the Germans would pass reinforcements from the north of France to the Somme and Aisne. Sixteen Wellingtons from Feltwell took off to attack communications at Cambrai: 10 Wellingtons from Honington communications at Le Cateau: 11 Whitleys from Driffild communications at Bapaume: 11 Whitleys from Dishforth communications at Doullens. Nearly all dropped their bombs in the target areas, and only one aircraft was lost.

While these Wellingtons and Whitleys of Bomber Command were attacking the communications north of the German offensive, eleven Battles of the A.A.S.F. operated from their advanced base at Echemines against targets a little further to the East. Attacks were made on roads at Givet, Hirson and Guise, and on Guise aerodrome, which was known to be in German use. One Battle was lost.

BOMBING OPERATIONS: (c) By night. Marshalling-yards and Oil in Germany.

The rest of the activity of the British bombing forces on the night 5/6th June was not concerned with targets in direct proximity to the French battle. Attacks on railways inside the German frontier were made by a few aircraft of Bomber Command, 8 Wellingtons in all being directed against targets at Wedau, Duren, Rheydt and Euskirchen. The main assault of the night, however, apart from the attacks in France, was part of the plan for attack on oil, for 36 Hampdens were despatched against the Schulau oil-plants. Hits were claimed and fires were caused in the target area, but there was no report of a conflagration. Six of the Hampdens failed to drop their bombs and one aircraft was lost.

FIGHTER OPERATIONS

The fighters of the A.A.S.F. were early engaged on this day. It was suspected that the Germans had laid plans to launch a big air attack on targets in and near Rouen, which was a key-point for the Allied effort. Apart from its industrial output and its obvious importance as a focal point of road and rail communications, Rouen was also a centre of military and air activity both for the French and for the British. No.1 Squadron was therefore up early on patrol from Rouen-Boos aerodrome, and together with French fighters engaged a very large German formation, which was intercepted at 0600 hours. Accounts of the

/German

German formation differ, as the estimate of the accompanying fighters runs from 24 to 60 Me.110, but there is substantial agreement that the bomber force consisted of some 60 He.111 and Do.17, and that it was escorted by several Me.110. The exchanges again are variously reported, but four Hurricanes were definitely lost, and it is probable that they destroyed an equal or rather greater number of enemy aircraft. Obviously, however, some of the German force was bound to get through, and it was reported that Boos aerodrome and Rouvray Camp were both bombed. This operation was repeated in the evening, when a smaller force - 12 He.111s and 4 Ju.88s escorted by 12 Me.110s - was intercepted at 1855 hours by No.501 Squadron. On this occasion the aerodrome and the Camp were again bombed, while attacks were also made on the main bridge, and the power-station, railway station and factories of Sotteville.

During the day a special deputation from 51st Division was sent to South Component H.Q. at Rouen Boos to ask for fighter protection against German bombing. Obviously, however, little could be given. Although it had now been decided in London that the three fighter squadrons should be brought up to full strength, replacements (including pilots) did not come across in quantity till June 6th, and on June 5th the A.A.S.F. fighters were down to eighteen serviceable aircraft. These were carrying out as many as four sorties each during the day.

Elsewhere during the day, aircraft of No.73 Squadron on patrol from Echemincs over the Reims area encountered two or three German aircraft near Epernay, but no large formations. German bombing attacks, apart from those against Rouen and in the battle area, were aimed against points on the Paris-Dieppe and the Paris-Amiens railway, and against French aerodromes South of Paris.

JUNE 6th

MILITARY SUMMARY

The German offensive which had begun the preceding day continued all along the line, but with particular success in the following areas:-

- (1) Between the Somme and the Bresle. Here the hard-pressed 51st Division was forced back, and during the night its withdrawal south of the Bresle was completed. The French elements in line with the 51st moved across to the right, so that the front held by the British was now along the Bresle from Blangy to the sea. German advance elements, however, had already succeeded in crossing the Bresle, and in some cases had infiltrated round the British positions. By the evening No.17 Military Mission (General Marshall Cornwall), signalled that the 51st Division was hardly fit for more fighting, and that they might crack if seriously attacked even on the Bresle position.
- (2) South of Amiens. Though no great advance was made by the Germans, the French were unable to rectify the bulge which the enemy had pushed in their line the previous day.
- (3) In the Peronne loop of the Somme. Considerable German mechanised forces pushed on towards Roye, though they were subjected to attack by both French and British bombers.
- (4) South of Chauny. Further German progress was made towards the Compiègne-Soissons road, tanks being reported late in the day at Vezaponin.

Much of the fighting was confused, since mechanised forces were penetrating French positions and passing on, leaving hostile forces in their rear. The line as it was described by the French in the evening probably by no means represents the extent of the maximum German penetration. The best general picture of the situation in the Ailette area at the end of the day is contained in a message from Swayne Mission to the effect that the French would probably withdraw to a line Soissons-Compiègne-Noyon-Montdidier, as it was impossible to supply infantry posts still holding out behind the enemy tanks. Moreover, further east along the Aisne, in the area south of Mézières, German divisions were now concentrating for a fresh thrust.

During this period German bombing attacks, apart from those in the battle area, were directed against towns and communications by which reinforcements would have to pass to the French front, for example Beauvais, Compiègne, Soissons. Several aerodromes in central France were also attacked.

BOMBING OPERATIONS. (a) Near the Somme.

During the day of June 6th, bombers of the Royal Air Force endeavoured to interfere with the progress of two of the thrusts outlined above - the advance towards the Bresle and the advance from the Peronne loop of the Somme. The Blenheims of No.2 Group Bomber Command were employed to hinder the former, the Battles of the A.A.S.F. the latter.

6.6.40
Document
No.13

6.6.40
Document
No.17

JUNE 6th

The first attack by Bomber Command aircraft was delivered in the neighbourhood of 1000 hours, the objective being columns moving South on the approaches to the Somme above Abbeville, or on the Hesdin - Abbeville road. Twelve Blenheims participated, (No.40 squadron), but the attack was costly, since five failed to return. The Blenheims were operating with fighter escort, since two Hurricane squadrons of Fighter Command (Nos. 17 and 111) were detailed to accompany them. No.17 Squadron's record speaks of an engagement with three Me.109's which were apparently already attacking the Blenheims, and No.111 Squadron's record mentions four Me.109's, but no large formations of enemy aircraft. It also tells of heavy and accurate A.A. fire against our bombers. Of the seven bombers which returned, four succeeded in attacking enemy convoys.

A less expensive attack in the same area was delivered later in the day by 24 Blenheims, their objective being bridges and roads at Abbeville and St. Valery-sur-Somme. The attacks were mostly delivered between 1700 and 1730 hours, and claims were made of direct hits on bridges in both towns, in addition to other hits on railways and cross-roads. Only two of the Blenheims failed to attack, and none of our aircraft was lost. They were apparently operating under fighter escort.

The attack by the A.A.S.F. Battles in the Peronne sector was not on a big scale, nor did it meet with any great success. Nine aircraft left Echemines to attack enemy columns at about 1630 hours on the Peronne-Ham road, near Ham, but very little was seen here. Attacks were delivered on M.T. and tanks near Chaulnes, under cover of one fighter flight from No.73 Squadron, but the main interest of the operation lay in the number of enemy aircraft seen. The Battles were attacked by nine Me.109's, and it is recorded that about 70 enemy aircraft were met with in a very small space. These included Me.109, Me.110, 15 Do.17 flying West, and large numbers of Ju.87 bombing in and around Roye. The town of Nesle and villages in the neighbourhood were reported to be burning fiercely.

BOMBING OPERATIONS (b) By night. German communications and airfields in France.

By night the British bombing attacks were continued, many of them being in proximity to the battle area. Twelve Battles of the A.A.S.F. were intended to attack the bridge at St. Valery and exits at Amiens and Abbeville, but the operation was seriously impeded by German bombing on Herbouville aerodrome. This was attacked three times - on the first occasion at 2345 hours, as the Battles took off, with the result that only five instead of twelve succeeded in becoming airborne; on the second occasion at 0020 hours when a further attempt to take off was frustrated; and on the third occasion at 0115 hours when some of the Battles were returning, serious damage being inflicted on two or three of them. Altogether 53 bombs were dropped, 23 on the surface of the aerodrome. Greater success met the efforts of twelve other A.A.S.F. Battles, operating from Echemines against targets near Laon, Guise, and St. Quentin. Aerodromes under German occupation N.E. of Laon and Guise were attacked, and at Laon a great fire was caused, as of a petrol dump.

JUNE 6th

The operations of June 6th and the previous night apparently threw a great strain on the resources of the advanced A.A.S.F. bases in South Champagne. The following extract is taken from the A.A.S.F., H.Q. Operations Record Book. ----- "The Staff, administrative equipment, communications, transport etc. remaining at East Panther (Advanced H.Q. Troyes), including the Advanced Refuelling Unit, were not sufficiently adequate for the scale of operations contemplated. At Echemines in particular the difficulties were many. No accommodation, no illumination for night work, no operations room no rations and a shortage of personnel made the work extremely hard for Wing Commander Hawtrey and Squadron Leader Collard. What had previously been envisaged as a mere advanced landing ground had now become a living Operations H.Q. with the tasks of briefing pilots, marshalling and supervising aircraft by day and control of flying by night. Added to this there were all the administrative problems of a station without the means to solve them. The C.O. of the Advanced Refuelling Unit in conjunction with the Operations Staff at East Panther endeavoured not only to deal with operations but the many administrative problems that also arose. The Operational Staff at East Panther was also much reduced in numbers owing to the splitting of the H.Q. The number of aircraft sorties carried out in the next 3 days were to exceed anything yet undertaken."

Much of Bomber Command's effort for the night was directed against communications to the rear of the German line in Northern France. Six Wellingtons attacked the railhead and roads at Hirson, and six attacked similar targets in Avesnes, Bethune and Le Cateau. Twelve were directed to attack convoys and troop concentrations in the area Abbeville-Amiens-Arras-Etaples, and eight of the aircraft found convoys to attack, particularly near Hesdin. Five Whitleys were also intended to attack these targets: four actually took off, and of these, three found convoys.

BOMBING OPERATIONS. (c) By night. Marshalling yards and Oil in Germany.

In addition to the attacks on French targets, Bomber Command also sent thirteen Whitleys against German railway communications to France and the marshalling yards at Duren, Euskirchen, Wedau, and Rheydt, eight of the aircraft managing to attack their primary or secondary targets. Apart from this, progress was also made with the strategic bombing plan, for 18 Hampdens were sent against the oil-targets at Hamburg and Ostermoor. Six of them failed to bomb either of these targets: others caused fires at Hamburg: but many results were not observed.

FIGHTER OPERATIONS.

Part of the British fighter activity for the day of June 6th has already been mentioned, in the form of the cover provided for the attacks by the Blenheims of Bomber Command and the Battles of the A.A.S.F. In addition to this there were small local protection patrols from Rouen-Boos in the morning and evening, on alert of approaching enemy aircraft. The main interest of the day, however, was in connection with the effort to provide fighter protection for the 51st Division. From 0520-0720 a protective reconnaissance was carried out by aircraft of No. 501 Squadron from Rouen-Boos, from Ault, on the coast along to Quend, up the river Authie to Boufflers and across to Oisemont. Little movement was seen in any of this area. The patrol was engaged with three Do.17 near

JUNE 6th

Forges-les-Eaux. During the day appeals were again received for fighter cover for the Division, which was being forced back towards the Bresle. No A.A.S.F. fighters were available for this work, but two squadrons of Fighter Command were detailed for afternoon and evening patrols, refuelling at Rouen-Boos - the first time Metropolitan fighter squadrons had done this. The Hurricanes concerned (No. 56 and 151 Squadrons), were at first apparently intended to co-operate with 6 aircraft of the A.A.S.F. No. 1 Squadron - all that the Squadron could muster - but this scheme was dropped from tactical and R/T difficulties. During the time in which the Fighter Command Hurricanes were over the area of patrol - about 1430-1810 hours - they sighted several Me.109s, but apparently had nothing more than minor engagements. It was while they were actually on patrol, at 1500 hours, that a most pressing request for fighter support for the 51st Division by one Squadron was received at B.A.F.F. Operational Headquarters. The message, from the British Military Attaché and passed via the Air Attaché, Paris, spoke of the 51st Division having been bombed continuously for two days. The Air Attaché was informed that a similar message had been received from the War Office, and that two fighter squadrons from the United Kingdom were already over the area. The patrols were apparently unable to prevent German air attacks on the 1/Lothians in Oisemont at 1430 hours, or on the late Headquarters at Mille Bois soon after 1800 hours, just after 154th Infantry Brigade had vacated them in favour of a nearby wood. It is noteworthy, however, that these two attacks came at the extreme limits of the duration of the patrols.

FIGHTER REINFORCEMENT.

In the realm of higher policy the day of June 6th produced fresh variations on the 'more-fighters' theme. General Weygand sent for Air Marshal Barratt to press a renewed request for fighter reinforcements (see Reports for June 6th Document No. 8), while Fighter Command was instructed by Air Ministry (according to Fighter Command Diary), that in the event of the Cabinet deciding to send additional fighters to France, the first squadron must be prepared to move on the 6th June, the second and third on the 7th or 8th, and the fourth on the 8th or 9th. If this is accurate (there is no signal to this effect in the Fighter Command Records in the Air Historical Branch), then it shews that consideration was being given to implementing the conclusion reached by the Joint Planning Committee at the close of May. This, it will be remembered, was to the effect that six additional fighter squadrons could be sent to France, using servicing facilities already there, at a risk to our own security - but that reinforcement should not be sent till the Germans had definitely committed themselves to a fresh offensive southwards in France. Meanwhile a beginning was made with the intermediate policy, two Metropolitan squadrons operating over France, and refuelling and rearming at Rouen-Boos, as the record for the fighter squadrons on this day has shewn.

On the night of June 6/7th the Germans chose to remind us of the doubtful wisdom of sending further British fighters to France. One hundred and thirty-four enemy raids were plotted over England, and attacks were made on iron-works, steel-works and aerodromes.

JUNE 7thMILITARY SUMMARY

7.6.40
Document
No. 17

During the day of June 7th the German attacks proceeded on all fronts. Some of the reports which reached London gave an impression that no great progress was made by the enemy: thus for example, at 1900 hours B.A.F.F. Advanced H.Q. transmitted a French report that tanks which had reached Formerie (N. 6734) were entirely surrounded by French tanks and were being systematically destroyed. The same report spoke of infiltrations at Roye and Noyon which had been "mopped up", and affirmed that the Allied line reported at 1300 hours (i.e. Le Treport-Gamaches-Blangy-Hornoy-Poix-Conty-Aillysur Noye-Moreuil-Roye-Noyon-Compiègne) still held firm. The very use of the phrase "mopped up", however, was ominous: almost invariably in these weeks, when "mopping up" operations were spoken of, it turned out to be a case of the mopper mopped. At 2045 hours a further report was sent out to the effect that there had been no great change during the day, but this was soon cancelled by a correction issued at 0045 hours on the 8th June. In fact, a most important advance had been made by the Germans in one area, and a very threatening move in another.

7.6.40
Document
No. 18
8.6.40
Document
No. 1a

The main German penetration on this day, which entirely altered the situation on the left of the Allied line, occurred in the Hornoy-Poix region. A gap was forced in the IXth Corps (French Tenth Army), between Liomer and Poix, and of this the enemy rapidly took advantage in his accustomed manner. Within a very brief time enemy mechanised units were at Formerie, and by the end of the day British forces were reported as retiring from Neufchatel and Forges-les-Eaux. Enemy units also reached Argeuil. The advance had thus struck in a direct line for Rouen, which was practically open to the enemy. In addition to this the break-through endangered in particular the 51st Division, which with some other British and French troops, was becoming isolated on the allied left.

Apart from the danger to Rouen, the German success near Poix threatened Beauvais, for some enemy forces turned in this direction, and by the end of the day were well towards the city, being south of Grandvilliers. Here they could link up with the southward thrust from Amiens, which had gone on steadily, and was already beyond the Conty-Ailly-sur-Noye road.

Besides the advance towards Rouen and Beauvais, the Germans on June 7th pressed from the Noyon region towards Compiègne, while further East they secured a bridgehead over the Aisne at Pommiers, just outside Soissons. German Armoured Divisions had not as yet been identified in this area: for seven of the ten armoured divisions were thought to be ranged against the Allies in the Somme offensive.

French lines of communication for possible reinforcements were again affected by German bombing attacks. The Paris-Dieppe railway was attacked at Forges-les-Eaux, Gournay and Gisors: and assaults were also made against the railways from Paris to Reims, Paris to Troyes, Beauvais to Creil, and Paris to Soissons. Many fires were caused in Soissons, including one at the railway station, and the town suffered /from

JUNE 7th.

from the tide of battle which was now lapping round its fringes. In addition to these targets the Luftwaffe also attacked the town and aerodrome of Evreux and the port of Cherbourg.

RETIREMENT OF SOUTH COMPONENT.

The German advances towards the Seine compelled the withdrawal of the South Component facilities at Rouen-Boos and Etrepagny. The servicing flight from Etrepagny was the first to move, retiring across the Seine to Beaumont-le-Roger. The convoy was attacked on the way by German aircraft, an ammunition lorry was exploded and casualties were inflicted to the extent of 12 dead and 40 wounded. The elements from Rouen Boos, including South Component H.Q. moved rather later, beginning at 0300 hours on June 8th. They crossed the Seine at Pont de l'Arche, avoiding a German attack on the bridge which began at 0530 hours. At 0800 hours South Component H.Q. re-opened at Dreux.

BOMBER OPERATIONS (a) Against the thrust to the Seine.

British bombers again strove to attack enemy columns or their immediate lines of communication towards the Seine, the other advance which had started south from Peronne being left to the French. The first operation of the day was by 18 Blenheims of Bomber Command, between 1330 and 1430 hours. In response to a request from the French through General d'Astier, it was directed against enemy concentrations seen in the area Pont Remy-Oisemont-Poix-Picquigny. This target area, it will be noted, covered in its southern limit the district in which the big German penetration was made. The Blenheims found plenty of M/T and A.F.V.'s to attack, particularly south of Molliens-Vidame, and in the town of Airaines. Many hits were claimed on the main roads and transport in Airaines, but few for the other objectives. The Blenheims had a strong escort of 24 Hurricanes of Fighter Command, and these carried out their function successfully, for they engaged a formation of about 30 German fighters at 1345 S.W. of Abbeville. The Blenheims in consequence suffered no losses.

A further attack (a result of earlier reconnaissance), by No. 2 Group aircraft against targets near this district was made later in the evening, when 36 Blenheims delivered attacks between 1730 and 1800 hours. Eighteen of them were directed against concentrations or communications west of the Abbeville-Blangy road, and eighteen against similar targets east of it. Those detailed for the former were told that the greater part of the enemy movement would be found between Miannay and Maisinières (i.e. towards Gamaches), and that in the absence of convoys to attack, the village of Toeufles should be blocked. Those detailed for operations east of the Abbeville-Blangy road were instructed that the main movement would be found towards Airaines, which should be blocked in the absence of a more profitable target. These instructions were possibly based on information which had hardly kept pace with the German movement, for by now strong German forces had swept between Hornoy and Poix and were twenty or thirty miles beyond Airaines towards Rouen. The Blenheims found little movement on either side of the Abbeville-Blangy road, (though A.A.S.F. Battles were to find plenty over a slightly wider area a short time

/afterwards

JUNE 7th

afterwards), and in consequence they devoted themselves to blocking Toeufles and Airaines. Our bombers again suffered no losses: their escort of 19 Hurricanes was weaker than that for the earlier operation, but no enemy fighters were encountered.

The attack on German movements over this ground was again renewed in the neighbourhood of 1830 hours, when 22 A.A.S.F. Battles bombed convoys over a wide area from the Abbeville-Blangy road to Poix. In particular the area Molliens-Vidame-Hornoy-Poix was found to be crowded with vehicles, and also with German infantry. Aumale, Poix and Grandvilliers were reported to be in flames, probably evidence of the attentions of German bombers. The Battles claimed to have scored many hits on the convoys, but three of our aircraft were prevented from bombing by the intervention of German fighters, and three more were shot down. Fighter cover between Abbeville and Amiens was provided for the Battles by a flight of A.A.S.F. Hurricanes working with eight (or eleven) Hurricanes of two Fighter Command squadrons, which had refuelled at Beaumont-le-Roger. The arrangement, however, was ineffective, for by some failure of organisation the three squadrons were all using different R/T frequencies. The escort encountered some 30 Me. 109 and Me. 110 near Aumale, and inflicted and suffered losses.

BOMBING OPERATIONS. (b) By night. German communications in France
Forest fire-raising

At night, attacks were made on the Somme crossings by 24 Wellingtons of Bomber Command. Claims were made of hits on the bridges at St. Valery, at Abbeville and at Bray, but none at Pont Remy, Picquigny or Amiens. Only one convoy was seen and attacked. Twelve A.A.S.F. Battles also operated against similar targets at Abbeville and Amiens, and claimed the destruction of the main bridge at St. Valery.

Away from the Somme area other attacks were made. Eight A.A.S.F. Battles attacked exits and the aerodrome at Laon, and the Forêt de Gobain (North of Soissons) in which German armoured forces were reported to be sheltering. For this purpose extra incendiaries were carried loose in the cockpits. Six Wellingtons of Bomber Command also aimed at igniting woods harbouring German troops, for they attacked the Bois de Bourlers and the Bois de Bailleux, North East of Hirson, and caused both fires and explosions. Along the same line of reinforcement four Witleys, of six despatched for the purpose, attacked the railhead at Hirson.

BOMBING OPERATIONS: (c) By night. Oil in Germany.

Twenty-four Hampdens pursued the oil plan, operating against Hanover refinery. Fourteen of these succeeded in attacking the main target; their reports spoke of some explosions, and about nine small fires.

FIGHTER OPERATIONS.

The fighter activity of the day of June 7th, in addition to the escort of bombers recounted above, was almost all directed to the protection of the 51st Division and other British troops along the Bresle.

JUNE 7th.

The policy of sending two squadrons of Fighter Command to patrol and refuel at South Component grounds was continued. 17 Hurricanes from No.43 and No.601 Squadrons patrolled in the morning from Le Tréport to Aumale, encountering two or three formations of German fighters a dozen or more strong. Soon after mid-day they landed at Rouen-Boos, and then proceeded to Beaumont-le-Roger, where they re-armed and re-fuelled. From here those aircraft which were still serviceable (8 or 11 - the records conflict), patrolled the Abbeville-Amiens line, in company with a flight of A.A.S.F. Hurricanes, and, as recorded above, covered an operation by A.A.S.F. Battles. During this they encountered some 30 Me.109 near Aumale. The Fighter Command and the A.A.S.F. Hurricanes then parted company, and the former flew back to England. Crossing the French coast, between Dieppe and Le Tréport at 1830 hours, they encountered a force described as 40-60 Me.109 and 20 Ju.88. At the end of their patrol, having fought one combat and in face of such superior numbers they were naturally in no position to do much; and the presence of such a German force augured ill for the 51st Division. During the day the two Squadrons lost six aircraft, in return for which they claimed to have destroyed six of the enemy - a result they regarded as disappointing.

In addition to the activity of Nos.43 and 601 Squadrons, other patrols were put up for the benefit of the B.E.F. along the Le Tréport-Aumale line. This was covered with the following results:-

<u>Approx. Time on Patrol Line</u>	<u>No. of Aircraft.</u>	<u>Enemy Aircraft seen.</u>
1400 - 1505	20	In combat with 5 Do.17 near Bernaville and 2 Me.109 at Airaines
1610 - 1710	23	He.113 seen
1740 - 1845	18	Groups of 6-8 Me.109s (with bombers) engaged near Maubeuge and Oisemont
1915 - 2005	23	In combat with 7 He.113s.

Thus about 118 British fighter sorties were made during the day which afforded some sort of protection to the B.E.F. and on all patrols enemy aircraft were encountered.

FIGHTER REINFORCEMENT.

During the evening of June 7th a final decision on the highest level was taken about the fighter reinforcement question. It was then decided that two further fighter squadrons were to be sent to France the following day (June 8th) on a wing servicing basis, and that four Fighter Command Squadrons were to operate over France, refuelling at grounds south of the Seine. Fighter Command had during the day been instructed by Air Ministry that they were to supply four squadrons of fighters for operations over the B.E.F. area; and in fact this, as the preceding paragraphs have shewn, had

JUNE 7th.

been done. Squadrons 17, 111, 56 and 151 had operated from England, and in addition Squadrons 43 and 601 had refuelled at South Component. The decision that four squadrons were to refuel South of the Seine, however, meant that there would have to be an expansion of South Component facilities in that area. Arrangements were accordingly put in hand for British fighters to operate from two further grounds to be placed at our disposal by the French - Evreux St. Martin and St. André-de-l'Eure; but the nature of the German advance rendered such projects uncertain of execution, and on the following day these plans were abandoned in favour of operations from England.

MILITARY SUMMARY

It is difficult from the records available to make a statement of the exact degree of progress achieved by the German forces during June 8th. What is clear, however, is that the situation in no wise improved for the Allied forces, but rather that the enemy exploited the opportunities he had made, and pushed forward strongly in several areas.

The German move which most endangered the British military forces was the continuation of the advance towards Rouen. The French Tenth Army had been cut in two by the penetration of June 7th between Liomer and Poix, and the Tenth Army H.Q., was, according to General Marshall Cornwall, scarcely functioning. Its Commander, General Altmeyer, had apparently broken down under the strain, and (again according to General Marshall Cornwall), was not fit to exercise further responsibility. The British forces hastily disposed the previous day to resist the advance to Rouen - namely the Armoured Division, which had been recuperating, and the Beauman Division, formed largely from L. of C. troops - were accordingly compelled to retire. By mid-day the enemy was over the Andelle river between Nollevall and Rouvray, and by the evening was less than ten miles from Rouen. Various elements of the British Armoured Division had accordingly crossed to the South of the Seine at Les Andelys and Courcelles.

The retreat of the left of the British forces (the 51st Division, plus minor elements) was unfortunately in another direction. Their right flank had been endangered by the German thrust, and as the Armoured Division retired across the Seine their rear too became open to attack. Although the danger of their being cut off in the North was clearly seen, and although demands were sent from the War Office that they should be allotted a line of retreat towards Le Mans, the 51st moved back towards Le Havre rather than Rouen. They were thus in great danger of being trapped in the Dieppe-Fécamp area, from which evacuation, according to a message from the V.C.I G.S., "could not be contemplated". By night they had reached the river Béthune. Between the 51st on the left, and the Armoured Division away to the right, the Beauman Division in the centre was in a divided situation. Part of it was retiring to the Seine to cover the Rouen bridgehead: but part was becoming cut off on the left, and liable to share the fate of the 51st Division. Such was the situation of the remains of the B.E.F. by the close of the night of June 8/9th.

Elsewhere along the Allied line the extent of German progress on June 8th is not everywhere clear. North of Beauvais, General Audet was trying to establish a line with the French 85th Division and remnants of the Tenth Army which had found themselves on the right of the gap, but the efforts of the Frenchman did not inspire General Marshall Cornwall with confidence. By night the Germans had certainly reached St. Just (north of Clermont, and practically equidistant from Beauvais and Compiègne).

Further to the right of the Allied line the Germans exploited their crossing of the Aisne which they had effected the previous day. This penetration was apparently largely by infantry, for twelve German infantry divisions plus A.F.V. units to the strength of one armoured division were thought to be engaged. By 2130 hours the Germans had reached Saponay (14 miles south east of Soissons, and only 10 miles from Chateau-Thierry on the Marne).

RETIREMENT OF B.A.F.F. OPERATIONAL HEADQUARTERS

German progress now further effected our dispositions. Already the advance towards the Seine on the previous day had, as explained above, compelled the withdrawal of South Component behind the river. Now the German advance towards the Marne had its effect. General d'Astier's Zone Nord Air Headquarters moved to the Orleans neighbourhood: and to keep in touch with him, and avoid the approaching danger to Coulommiers, Air Marshal Barratt withdrew his advanced H.Q. to Olivet, south of Orleans. The administrative H.Q. had already been set up here, and the battle H.Q. retired to join it during the night 8/9th June.

BOMBING OPERATIONS: (a) Between Somme and Seine

North
B.A.F.F.
Telephone
Log:
Entry of
1730 hours
7.6.40

Bombing Operations during the day of June 8th by the A.A.S.F. and Bomber Command were almost entirely directed against German troop movements in the area of the penetration near Poix. The restriction on the full employment of the Blenheims, in force since May 30th*, was now cancelled, and Air Marshal Barrett thus had a call on the full resources of No. 2 Group. The first attack of the day was delivered at about 1200 hours by 18 Blenheims of Bomber Command, who were sent against concentrations in the square Hornoy-Molliens-Vidame-Quevaucourt (M.9552) - Poix. The Blenheims for the most part were not able to observe their results, though there was one claim of a very destructive hit on the head of a column: but they were very clear that the whole area was full of desirable targets. Accordingly Bomber Command, having secured Air Marshal Barratt's assent to the proposition, laid on another operation in practically the same area for the afternoon. The morning operation had cost two Blenheims: the bombers had been escorted by 22 Hurricanes of Fighter Command, but though they were apparently unmolested by enemy aircraft, our planes were subjected to intense anti-aircraft fire.

Between the morning and the afternoon operations of Bomber Command, the A.A.S.F. Battles twice attacked similar targets. At 1330 hours, 12 Battles were ordered against columns in a slightly more northerly area (Abbeville, Longpré, Poix, Aumale), apparently with instructions not to bomb from lower than 5,000 ft. Most of the aircraft had to be content with road targets, but three of them found convoys to attack along the Blangy-Aumale road, and one at Avesnes. (M.7962). The Battles had no more than a very weak fighter escort of seven A.A.S.F. Hurricanes (No. 501 Squadron), operating from Dreux. This small force ran into a very great one, if the estimated numbers are to be trusted, for the combat report tells of 80 Me.109's found escorting Ju.87's (apparently about 30) ten miles south east of Abbeville. The Hurricanes naturally had the worse of the exchanges, and in addition three Battles were shot down.

At 1515 hours eleven A.A.S.F. Battles renewed the attack on German columns in the Poix-Aumale area. Very large forces were seen and attacked - for example forces of 300 M/T, 200 Tanks and A.F.V.'s, and a column five miles long. On this occasion only one Battle was lost, in spite of the failure of the promised fighter cover to materialise. Eleven A.A.S.F. Hurricanes (No. 1 Sqn.) had been detailed for this duty, refuelling at Beaumont-le-Roger. Servicing facilities here, however, were apparently very inadequate, and in consequence the Hurricanes were delayed and missed their rendezvous with the Battles.

* See page 330.

JUNE 8th

393.

The renewed attack by the Blenheims of No. 2 Group came at 1630 hours, when thirty-six aircraft sought, found and hit large German movements on either side of the Amiens-Poix road. Three of the Blenheims were lost. Hurricane escort 21 aircraft strong had been arranged by Fighter Command, but most, if not all, of these failed to make rendezvous with the bombers. A little later (about 1800 hours) six Blenheims were despatched against a specific target, a petrol dump in the Bois Watte, four miles N.E. of Abbeville. One aircraft claimed to have hit the target, but the Blenheims, which were not escorted, ran into Me.109's, and their bombing efforts were impeded. One Blenheim was shot down, and in return one Me.109 was claimed.

BOMBING OPERATIONS: (b) By night. German Communications in France.

By night the intervention along the Lower Somme continued, and a wide variety of targets was attacked by small bomber forces. Thus eight or nine A.A.S.F. Battles were directed against the Somme crossings at St. Valery, Abbeville and Amiens: while these targets were also attacked by twelve Wellingtons of Bomber Command, hits being claimed on the St. Valery and Abbeville bridges. Six other Wellingtons were directed against the bridges at Pont Remy and Picquigny, while twelve more attacked various roads leading to the Somme on the northern side of the river. Twelve Hampdens were detailed to make a special attack on the Northern entrances to Amiens. In all some fifty bombers operated during the night against these targets.

Attention was also paid to the German concentrations north of Soissons. Three Battles attacked communications near Laon, and four attacked the nearby Forêt de Gobain, where German divisions were reported to be harbouring. This target was also attacked by some Whitleys of Bomber Command. Large fires were caused, adding to the effect produced by German bombing of the Soissons area earlier in the day, so that it was reported that the whole countryside around Soissons, Compiègne and Noyon seemed ablaze. Other likely forest harbours for German troops were also attacked by small formations of Wellingtons and Whitleys - the Bois de Crécy (N. of Laon), the Forêt de la Fere, the Forêt de St. Michel (Hirson), and the various woods round Chimay (the Bois de Chimay: the Bois de Bailleux: the Bois de Bourlers). In the Bois de Chimay, in particular, large explosions were reported. In all, fifteen aircraft of Bomber Command and four of the A.A.S.F. attacked forest targets.

At the same time, railway targets were not neglected, for about 50 sorties were directed against these. Eight Whitleys operated against road and rail junctions at Avesnes and Aulnoye, while eighteen Whitleys attacked the railways at Hirson and Charleville.

BOMBING OPERATIONS: (c) By night: Marshalling yards, etc. in Germany.

The by now customary attacks with small forces on the tracks and marshalling yards of Rheydt, Wedau, Essen, Aachen, Düren and Euskirchen were kept up. Four A.A.S.F. Battles also operated against bridges, railways and the aerodrome near Trier. From this night onwards the strategic oil-bombing plan was temporarily dropped, and the full effort of the heavy bombers was devoted to influencing the land battle in a more immediate form.

JUNE 8thFIGHTER OPERATIONS AND REINFORCEMENT

The A.A.S.F. Fighters on June 8th were entirely engaged with escort and local defence duties, except that No. 73 Squadron in the evening flew to Echemines, and thence patrolled the Soissons area for dive-bombers. These, however, were not encountered.

One important change in the A.A.S.F. fighter organisation occurred during the day, when the two reinforcing squadrons arrived from England. They were Squadron No. 17, which joined Squadron No. 1 at Chateaudin, and Squadron No. 242, which joined Squadrons No. 73 and No. 501 at Le Mans. They brought with them certain maintenance facilities, but no Wing Servicing Unit, and thus threw an additional strain on the existing servicing organisation in France.

The activities of Fighter Command, apart from the escorts to bombers mentioned above, consisted largely of patrols from Le Tréport to Aumale for the benefit of the B.E.F. These were flown as follows:-

1. 0820 - 1020 hrs: by 20 Hurricanes. They engaged in combat with 20 Me.109s and 30 Me.111s at 0925 hrs. near Aumale. Some of the Hurricanes apparently landed at Dreux, and from here they may have carried out another patrol.
2. 1250 - 1325: by 24 Hurricanes
3. 1730 - 1930: further patrol by the above force, which had landed and refuelled at Dreux.

Thus four Squadrons operated from England (omitting bomber escorts) and of these, three refuelled at Dreux.

8.6.40
Documents
Nos. 26,
27.

The above arrangements, however, were not to obtain for the future, for in the evening of June 8th (in spite of a renewed appeal from M. Reynaud) it was decided that fighters operating from Great Britain should not land in France except in emergency. Thus South Component would exist for the A.A.S.F. alone: and this was to some extent inevitable in view of its precarious position in face of the German advance, and the fact that its retreat would be southwards, out of range of squadrons from England.

JUNE 9thMILITARY SUMMARY

The day of June 9th again marked further German progress. Among the most notable developments was the continuation of pressure along the Poix-Aumale-Formerie line of advance, which carried the enemy forward to the Seine between Rouen and Vernon. Rouen was evacuated, its bridges demolished, and its petrol and oil stores fired, causing the vast pall of smoke noticed by all pilots over the area.

This advance to the Seine naturally made the situation of the British 51st Division and its accompanying French troops on the left of the Allied forces still more precarious. Along the line of the River Béthune the 51st might be able to resist the pressure of German infantry from the East, but they could not cope with the mechanised forces which now threatened envelopment from the South. Dieppe would have been the best port of evacuation, but this was damaged and about to be blocked, and the coastline between Dieppe and Le Havre was in general suitable only for approach by small craft.

The 51st and the French with them (IXth Corps, Tenth Army) accordingly made for Le Havre. A special detachment - "Arkforce" - was sent on in advance to reinforce the French covering the Le Havre peninsula (Fécamp to Lillebonne) against a German drive along the Seine from Rouen. The main force, however, could proceed but slowly, as the French were obliged to march, and it was decided that movement could take place only by night. Accordingly, on the 9th June, Major General Fortune, commanding the 51st Division, estimated that his force could not reach Le Havre till June 13th. In fact, it was in the highest degree unlikely that they would reach it at all: for certain of the British on the right were unable on June 9th to reach their ammunition dump at St. Saens, an indication that the German threat was very near. However, the plan of the 51st was clear - to retire slowly on Le Havre, keeping north of the St. Saens-Bolbec road. Major General Fortune's signals to the War Office explaining this project contained a plea of a kind which was not infrequently heard during the Battle of France: "Essential that air delay enemy movement mostly A.F.V.'s to South of St. Saens - Bolbec road, also his infantry advance from East. Air support requested to prevent unrestrained bombing."

9.6.40
Documents
Nos. 17
and 18.

The other British forces were less dangerously situated, since they were now almost all back to the Seine, and had a line of retreat southwards or westwards open to them. By mid-day the Beauman Division had blown the bridge at Pont de l'Arche, and was holding the Seine between there and Rouen. It knew nothing of the French positions further on the right, and seemed to Lt. Colonel Woodall, who visited General Beauman, to be preparing a move westwards. Headquarters during the day did in fact move 30 miles west from Evreux to Montreuil L'Argillé (Q.6964). The Armoured Division also held part of the Seine, between Elbeuf and Courcelles, and this force too was prepared to move westwards in case of necessity. However, no German bridgeheads were established over the river on June 9th.

9.6.40
Document
No. 8

Elsewhere the situation also continued to deteriorate. Along the Aisne the pressure continued in the Soissons bulge, and German forces advanced nearer to Chateau Thierry. Further east a new attack developed between Chateau Porcien and Le Chesne (i.e. on either side of Rethel) and crossed the river and the canal at several points. This attack was at first reported to be an affair of infantry, but the French line was

JUNE 9th

broken and isolated posts alone held out in the district south of Rethel. It was soon to be apparent that the enemy would exploit this success to the utmost, swinging in the bulk of his armoured forces.

BOMBING OPERATIONS: (a) Between Somme and Seine

The day's bombing attacks were all delivered by No. 2 Group Blenheims, and were again concentrated in the area where the French Tenth Army had given way so badly. At mid-day 18 Blenheims attacked and wrecked several columns in the area Hornoy-Poix-Formerie-Forges-les-Eaux. Many of these, however, were composed of horse-drawn vehicles, and did not contain the A.F.V.s for which the Blenheims were primarily seeking. The report of a Wing Commander engaged in the raid was that "there appeared to be no allied opposition to the M.T., which seems to be proceeding without opposition. The raid seemed to be late as M.T. in the target area was not as concentrated as expected: it appears to be heaviest in the extreme S.W. and W. of the area." Three of the Blenheims were lost during the operation, though the twenty-four escorting fighters (of Fighter Command) apparently had no adventures.

The attack was renewed about 1300 hours, when 15 Blenheims were directed against concentrations in the square Aumale-Poix-Grandvilliers-Formerie, and 15 more against similar targets in an adjoining square to the west - Neufchâtel-Aumale-Formerie-Forges. The aircraft attacking the more easterly square found few concentrations, and launched their bombs against streets in the towns which would block German lines of reinforcement. Those attacking the more westerly square, however, found transport scattered all over the area. Hits were claimed on A.F.V.s in addition to successful attacks on horse-drawn vehicles. A column of 200 M.T. was seen heading North-West through Conteville (i.e. towards Neufchâtel - an indication that German forces might also turn right to deal with the 51st Division). The Blenheims were apparently uninterfered with by German fighters, though a detached aircraft of the twenty-four escorting Hurricanes was engaged with a force of about 24 Me.109's.

No attacks were carried out by the A.A.S.F. Battles during the day of June 9th. Instructions were received from B.A.F.F. H.Q., at 1612 hours that an attack should be delivered on armoured columns, mechanised artillery and troops reported in great concentration on roads near Argueil, Formerie and Forges, but these orders were cancelled within half-an-hour. No fighter support could be provided, and it was not proposed to risk the Battles in its absence.

BOMBING OPERATIONS: (b) By night: German communications and concentrations in France

By night also part of the bombing effort was directed against communications across the Lower Somme. Ten A.A.S.F. Battles attacked the canal bridge at St. Valery, and bridges and roads at Abbeville and Amiens. Fifteen Whitleys were also directed against bridges over the Lower Somme, while six or seven more attacked the Northern entrances to Amiens. One of these Whitleys complained of being chased by German fighters, an infrequent occurrence by night over France. The aircraft attacking the bridges claimed to have scored hits at St. Valery, Abbeville East, Abbeville West, and Picquigny, while the bridge at Pont Remy was found already destroyed.

JUNE 9th

The attack on another series of targets - woods and communications from Laon to the Ardennes Forest - was of course designed to ease German pressure in the Soissons area, as well as impeding any flow through to the Lower Somme. Nine A.A.S.F. Battles from Echemines attacked communications near Laon and again showered incendiaries on the neighbouring Forêt de Gobain. Thirty Wellingtons operated against woods thought to contain German forces, and were in many cases rewarded by causing large explosions as well as fires. This happened in the woods near St. Michel, Hirson, Revin, Les Mazures, and Fumay: while other stretches of forest were ignited near Rocroi, Laifour, Les Voieries and Gespunsart. Certain of the aircraft also attacked communications in the towns of Hirson, Revin, Fumay, Rocroi, Mézières and Charleville. Another series of sorties was directed specifically against communications in the Mouse-Ardennes towns, 21 Whitloys attacking Sodan, Fumay, Monthermé (where the road and rail bridge was hit), Libramont and Neufchâteau.

BOMBING OPERATIONS: (c) By night: Railway targets in Germany

In addition to the above operations, the usual attacks were made on the railway centres immediately west of the Rhine. Thirty-six Hampdens were directed against railways at Aachen, Soest, Duisburg, Rheydt, Düren and Euskirchen. Location of many of these, however, proved to be difficult, as the night was unfavourable and resort was made to bombing self-illuminating targets such as blast furnaces and lit-up aerodromes. Some of the aircraft bombed Flushing aerodrome on the way home.

FIGHTER OPERATIONS

A.A.S.F. fighter activities of June 9th consisted chiefly of protective patrols in the area of the British forces. In the morning a No. 1 Squadron patrol between Vernon and Pont de l'Arche for the protection of the Armoured and Beauman Divisions apparently just mised a force of 27 enemy aircraft, for one Hurricane alone is reported as having been engaged with these. In the afternoon (1630 - 1800 hours) No. 1 Squadron was ordered to meet No. 17 Squadron above the Forêt de Bretonne and carry out a joint protective patrol, but the pall of smoke from Rouen was so dense that contact was not made. No. 1 Squadron proceeded to patrol St. Saens - Bacqueville uneventfully, as protection for the 51st Division, while No. 17 Squadron, to judge from its records, patrolled from Rouen to Le Havre (though in fact it probably carried out a similar patrol to No. 1 Squadron's). Some patrols were also flown for the benefit of the French forces round Soissons, but uneventfully. A little further east, however, seven Hurricanes of No. 242 Squadron, patrolling Neufchâtel-sur-Aisne to Attigny in search of dive-bombers, ran into 10-20 Me.109.

The work of Fighter Command aircraft apart from the two escorts to bombers recorded above, consisted of two patrols for the protection of British forces. The patrol line was Le Tréport - Crèvecœur (M.9228); the times of patrol 1200 - 1340 hours and 1600 - 1720 hours; and the number of aircraft engaged 37 and 36 respectively, made up from four squadrons. It will be noticed that these patrols were much stronger than anything which had preceded them, but that in consequence they were also of less frequent occurrence. In conformity with the policy decided on the previous evening, there was no landing at South Component grounds. No enemy aircraft were seen on either of these patrols except for four Me.109, but the smoke from Rouen and, on the second patrol, Beauvais, spoilt visibility.

JUNE 9thRETIREMENT OF A.A.S.F. ADVANCED HEADQUARTERS

At midnight on June 10th the A.A.S.F. advanced operational H.Q. at Troyes closed down, control being exercised in future from the rearward A.A.S.F., H.Q., at Muides. The landing-grounds in the South Champagne district - Echemines and Faux Villecorf - however, were still kept in being, the move of H.Q. back to Muides being dictated less by the German advance onwards to the Marne than by the fact that B.A.F.F. H.Q. had moved from Coulommiers to Olivet the previous day. At Coulommiers, communications with Muides had been bad, but from Olivet (near Orleans) to Muides, they sufficed. Thus while the A.O.C.-in-C. remained at Coulommiers, many of the A.A.S.F. operations were controlled from Troyes: but when the A.O.C.-in-C. moved to Orleans, the 'East Panther' operations room could be abandoned, and the A.A.S.F. H.Q. could again become a single entity, based at Muides near its main aerodromes.

JUNE 10thMILITARY SUMMARY

June 10th saw the 51st Division and the French IXth Corps, at the left of the Allied line, fully enveloped in the perilous situation which had been threatening them for some days. The two brigades and attached troops ("arkforce" - some 4,000 men in all) sent on in advance to Le Havre made good their retreat: but the main body of the 51st and the French IXth Corps troops were trapped between Dieppe and St. Valery-en-Caux). As the Allied Force retreated towards the river Durdent (W. of St. Valery-en-Caux) it learnt that the Germans had cut communications across the Le Havre-Fécamp peninsula: that the bridges on the Durdent at Veulettes and Camy were held by the enemy, and the intervening ones destroyed. On all sides, except that of the sea, the 51st was thus hemmed in by the enemy; and unless it could fight its way through to Le Havre, there was no alternative to evacuation from the neighbourhood of St. Valery-en-Caux, or surrender. This situation was clearly appreciated at home, and the C.-in-C., Portsmouth, was soon making preparations for evacuation from St. Valery-en-Caux, unpromising though the coast was for such an operation. A complication, however, was introduced by an instruction from General Weygand to the French IXth Corps to withdraw upon the Seine, (e.g. at Caudebec), where "higher authorities would prepare a means of crossing." This caused the War Office to instruct Major-General Fortune that he must act in conformity with any orders issued by IXth Corps to this effect. However, as Major-General Fortune put it in reply, IXth Corps was "in the same boat" as himself; General Weygand's order was in fact impossible to obey, and the IXth Corps was of no different mind from the 51st Division in this matter. Thus the situation at the close of the 10th June was that every military consideration (though not General Weygand's order), pointed to evacuation from St. Valery-en-Caux the following day or night: and as a first instalment some wounded sent on in advance to the town were, in fact, during the night June 10/11th thence evacuated.

While the 51st Division was being enveloped near the coast, further south the Germans succeeded in crossing the Seine. Reconnaissances were repeatedly flown during the day by British and French aircraft to ascertain the state of the bridges between Rouen and Conflans-Seine-et-Oise, but it is difficult to piece together from their observations a picture of which bridges were in fact used by the Germans. Certainly all, or nearly all the main bridges were reported as blown: and it is probable that the enemy crossed on pontoons, and on blown bridges which yet permitted of repair by a skilful and resolute organisation. In any case, by 1800 hours the Germans were reported as having bridgeheads at Elbeuf and Louviers, with troops sheltered between these towns in the Forêt Dominiale de Bord. They were also well established on the South bank of the Seine at Courcelles, and at Vernon, where they had troops in the Forêt de Bizy. If forces could be pushed across great natural obstacles like the Seine with such comparative ease the outlook for the French was indeed black: Paris could now be approached from the West, as well as the North and East: and the increasingly grave military situation was reflected in the fact that the French government now left the capital for Tours.

Nor was the position elsewhere along the French front more encouraging. The German thrust from directly north of Paris continued, as did the advance from Soissons towards Chateau-Thierry. East of Chateau-Thierry, the Germans reached

JUNE 10th

the Marne at Dormans. Reims, too, was thus in a precarious situation, for enemy forces were now to the south-west of the city, in addition to those advancing on it from the north and north-east. Further east along the "line", in the Argonne, the French were faring better against the infantry attack between Attigny and Le Chesne, and were holding the enemy along the south bank of the Aisne Canal. But a new threat further east still was opening, for between the Meuse and the Rhine there were growing indications of a forthcoming offensive. Military concentrations were occurring between Basle and Kaiserstuhl, while dive-bomber Gruppen and fighters were being gathered together on aerodromes in the Birkenfeld - Mannheim - Stuttgart area. It thus seemed that in addition to all the other attacks with which the French were incapable of dealing, they would soon have to face a further assault along the Saar - Rhine front.

Moreover, as though the conflict against the Germans were insufficient tax on the French resources, on June 10th Italy declared war on the Allies. The implications of this it will be more convenient to examine in connection with the events of June 11th.

BOMBING OPERATIONS: (a) Near the Seine

R.A.F. bombing operations by day were aimed at impeding the enemy in his advance to and across the Seine. The first attack of the day was made by 12 Blenheims of Bomber Command, and was successfully launched against columns south of Forges-les-Eaux and at La Feuillie, on the Gournay - Rouen road. Later the target area was moved a little further west, for at about 1045 hours 12 A.A.S.F. Battles attacked columns approaching Vernon, and the bombs of at least one aircraft hit the remains of the bridge, which had already been blown. The aircraft reported that all bridges between Rouen and Nantes were down, except possibly the railway bridge at Vironvay, though it was also said that this was burning. Two Battles were lost in this operation, while one was badly damaged through being attacked by a Hurricane.

In the afternoon the attack continued. About 1500 hours thirty-three Blenheims sought and found German troop concentrations and M.T. between Rouen and Les Andelys, and also on the Forges - Rouen road. As in the morning operation of Bomber Command, none of the Blenheims was lost. They had fighter escort twenty Hurricanes strong, but no German aircraft were encountered. Later (about 1700 hours) twelve A.A.S.F. Battles were sent to attack the railway bridge at Vironvay, the light traffic bridge at Pont de l'Arche (which was reported to have been used by the Germans), and columns approaching the Seine between Pont de l'Arche and Vernon. Both the bridges, however, were reported by the aircraft to have been destroyed, and the Battles therefore, besides attacking the damaged bridges, attacked M/T near Vernon, a bridge over the Andelle at Pont St. Pierre, and a bridge still standing over the Seine at Courcelles. This had been reported down earlier on: and in consequence it must be assumed either that it was incorrectly observed during the morning or the afternoon operations, or that the Germans had meantime repaired it.

June 10th

BOMBING OPERATIONS: (b) By night: German communications in France

By night some of the bombing attacks were also directed against targets in the Seine area. Fifteen Battles attacked roads leading towards Fleury, Pont de l'Arche, Les Andelys and Vernon, while eighteen Whitleys of Bomber Command attacked road and rail targets at Forges, Aumale, Poix, Gournay and Fleury. Visibility was poor, however. The A.A.S.F. Battles could not find Pont de l'Arche, and six of the Whitleys failed to drop their bombs.

Another series of attacks was made during the night against road and railway targets at Laon, La Fère and Soissons, and was thereby designed to slacken the increasing German impetus towards the Marne. Eighteen Wellingtons of Bomber Command were engaged on these tasks, but haze prevented the location of the main road target at Soissons, and three aircraft brought back their bombs.

The Meuse-Ardenne lines of communications were also attacked, particular attention being directed to river crossings and railways. Twenty-three Bomber Command Hampdens and seven A.A.S.F. Battles operated against this class of target, attacking communications in Bertrix, Givet, Liart, Charleville, Sedan and Libramont. A few sorties were also directed against railway targets in Western Germany (Euskirchen, Trier), but these produced little result. There was a considerable proportion of wasted effort owing to ground haze: for instance, of four Battles and four Hampdens directed against Givet, only two found the target, while three Hampdens out of five failed to locate a river crossing in Sedan.

FIGHTER OPERATIONS

Fighter activity of June 10th, apart from escorts to bombing operations (and there is no record of the A.A.S.F. attacks having been escorted on this day), was concentrated over two areas, both selected for the protection of British forces. On instructions from Air Ministry, a special series of patrols was put up by the A.A.S.F. Hurricanes to cover the evacuation of French and British troops from Le Havre. Evacuation itself was to take place during the nights, but day patrols would obviously benefit a dangerously congested port. There is no record of the complete number of patrols flown, but the intention was that a patrol of squadron strength should be maintained over Le Havre all day. Certainly a very considerable effort was made, for from the records which have been kept it is ascertainable that No. 1 Squadron carried out at least three patrols over the area, No. 73 Squadron four patrols, No. 501 Squadron one patrol (possibly more), and No. 17 Squadron two patrols (possibly more). No. 242 Squadron was also said to be engaged. In fact, there is evidence of the patrols during most of the daylight hours, mostly flown from the South Component grounds of Dreux and Beaumont-le-Roger (though the latter was evacuated during the afternoon). During these patrols there were apparently no big combats, though this is difficult to reconcile with the crashed-landing of four aircraft of No. 501 Squadron. Visibility was bad, owing to the black smoke pouring from the Le Havre oil tanks - a feature noticed by our pilots from about 1300 hours onwards.

June 10th

The other patrols maintained by Fighter Command aircraft were designed for the protection of British and French troops, along the coast occupied by the 51st Division. The line covered was Le Tréport-Dieppe-Fécamp. The details of patrols were as follows:-

1050 - 1250 hours	-	19 aircraft
1215 - 1400 hours	-	21 aircraft
1403 - 1605 hours	-	23 aircraft

Thus 63 sorties were flown; the patrol consisted of an average strength of 21 aircraft; and, deducting time for gaining height and distance, the patrol line was probably covered in all during the day for $3\frac{1}{2}$ - 4 hours. During this time there were no encounters recorded, except that in the last patrol some enemy aircraft were sighted in the distance.

MOVES OF SOUTH COMPONENT

During the day of the June 10th the South Component ground of Beaumont-le-Roger was evacuated. This was, of course, necessitated by the German advance over the Seine. It was also decided to abandon the idea of operations from Evreux, for which preparations had been proceeding. For the moment, however, the South Component ground at Dreux, which was further south and less threatened than Evreux or Beaumont-le-Roger, was maintained. An important development was that servicing organisations were ordered from the evacuated grounds to Caen, where the French had promised facilities. This was to be made ready for three squadron sorties by the following day: and it is certain that, since protection was to be given over Le Havre and later Cherbourg, the establishment of a ground at Caen rather than the complete retirement of the South Component organisation to Le Mans, was the best thing that could be done in the circumstances.

JUNE 11thMILITARY SUMMARY

In the North, the last scenes in the tragedy of the 51st Division were now enacted. The allied intention was to hold a perimeter round St. Valery-en-Caux, gradually retiring on the little town for evacuation during the night - "the last possible chance," as Major-General Fortune described it. But the Germans, who had reached Fécamp in the morning, were already in strength on the western side. As the day wore on they ate away the perimeter; by the evening they apparently held some of the town of St. Valery, and had certainly trained mortars and machine-guns on the quay. Ships, in fact, which had approached the little harbour had been met with fire from field-guns on the cliffs, sited in a position to be inaccessible to bombardment from the sea, as early as 0930 hours. The fortunes of the 51st Division were indeed no longer prejudiced by the political consideration of keeping in with the French, for the latter had now given consent to the evacuation, which they wished extended to themselves. But time was running out: there were 12,000 French and 12,000 British to be evacuated: and the enemy was not only pressing fiercely on land, but also dominated the sea approaches.

Accordingly, at 2000 hours, the order was given to the 51st Division to destroy their vehicles and all save their small equipment, and to march in the night into St. Valery, thence to be evacuated during the early hours of the 12th June. The last chance, however, failed: fog descended and prevented the ships which were lying off in waiting from approaching the coast. It was later explained by the C.-in-C. Portsmouth that of the 207 vessels hastily collected off the French coast, it had been possible to procure only 16 fitted with wireless. When they were unable to shelter in St. Valery, visual communication between the vessels afloat was essential, and this, the fog prevented. Under murderous fire some odd parties were brought off in boats from the beach of Veules-les-Roses, to the east of St. Valery: but the main body of the Division waited in vain: and though the naval forces were prepared to try again the following night, it was not possible for the now practically disarmed 51st Division to resist longer. At about 1030 hours on June 12th, two hours after the French had laid down their arms and instructed him to do likewise, General Fortune gave the order to cease fire.

However, if the evacuation from St. Valery-en-Caux went awry, that from Le Havre afforded greater chances of success. The elements of the 51st Division which had been pushed on in advance to defend the port - "Ark Force" - and Le Havre garrison were now scheduled for evacuation to Cherbourg. During the day of the 11th, Le Havre was bombed, and for much of the night. From mid-day onwards the town was without lighting and water services. Three transports were sunk, and damage was done to the docks. Evacuation, however, was not thereby rendered impracticable. Preliminary measures were taken during the day: some of the more valuable transport was sent across the Seine, and the refineries and petrol stores were fired. By night the evacuation of the main troop bodies began - an operation which was to continue a further two nights.

During the day of June 11th, the enemy did not thrust much further in his advances across the Seine, but was content to enlarge and consolidate his bridgeheads. These were by now well established at Rouen, Elbeuf, Louviers, Les Andelys and

12.6.40
Document
No. 35

404.

June 11th

Vernon. Repeated reconnaissances were flown to ascertain where the Germans were crossing, and bombing operations were directed in particular against the area of Les Andelys. South of the Seine elements of the Armoured Division were still being kept in forward positions, largely from the political necessity of having some British troops with the French in the front line. Other elements, however, were being withdrawn for a badly needed overhaul towards Le Mans, north of which the leading division of the "new B.E.F." - the 52nd Division - was now beginning to concentrate.

To the east of the Seine, the French line now ran from the junction of the Seine and Oise along the latter river to Chantilly. Between Chantilly and the Ourcq, however, the French were steadily giving ground, while at Chateau Thierry, and just east of it at Jaulgonne and Dormans, the Germans crossed the Marne. This meant that a threat to the capital could now open from yet another direction.

Further east a reconnaissance over Reims at 1500 hours reported that the French had apparently retired from their Aisne positions, (for the Germans had now passed considerable armoured forces across near Rethel), and that the enemy was advancing in strength to the Marne. Thus Reims and its neighbourhood had fallen to the Germans: and as the enemy forces in this area swept along towards Châlons-sur-Marne a still more dangerous possibility opened. For it was now clear that the Germans had brought up a great deal of their remaining armour for use in this sector - and hence that resistance here would be doubly difficult. At the moment, the direction of the thrust still appeared, like that of the other thrusts, to be largely aimed at the capital: but by turning east from Châlons-sur-Marne instead of west the Germans could approach the rear of the Maginot Line. Compared with this grave threat, the fact that the French repulsed another attack nearer Stenay was of little importance.

RETIREMENT OF SOUTH COMPONENT AND THE EASTERN A.R.U.

Although the Germans apparently did not advance very far across the Seine on the June 11th, the treat was nevertheless sufficient to enforce the retirement of South Component Headquarters from Dreux during the following night. Dreux town had been seriously bombed during the day, and in the hours of darkness South Component H.Q. withdrew, in accordance with arrangements, to Laigne, near Le Mans, the H.Q. of No. 67 Wing. The servicing elements from Dreux were sent to Chateaudun, the aerodrome of Nos. 1 and 242 Squadrons. Thus the last of the South Component grounds was evacuated, except for the newly acquired facilities at Caen.

Just as the German advance across the Seine threatened the South Component, so the advance across the Marne endangered the eastern forward base of the A.A.S.F. at Echemines. At the close of June 11th the Advanced Refuelling Unit was therefore ordered to retire to Le Mans.

BOMBING OPERATIONS: (a) Near the Seine

R.A.F. bombing activity of the day of June 11th was largely concentrated in aid of the struggle in the area of the Seine crossings. At dawn the A.A.S.F. began by sending 12 Battles to attack a new crossing which had been reported near Vezillon, (R. 5889) just south of Les Andelys. Most of the pilots failed even to see the river at this stretch on account of haze, or

June 11th

smoke, or a smoke-screen. Three or four, however, claimed to have had a clear view of the locality concerned, and reported that there was no bridge to be seen. Bombs were therefore dropped on the town and forest of Les Andelys. One aircraft reported a crossing south of Vernon.

The search for this bridge was renewed with better results in the afternoon, (1330 hours), when six Battles were sent under fighter cover. Two of the aircraft claimed not only to have seen, but to have hit the bridge, leaving a gap in it, while two more attacked a girder or pontoon bridge variously recorded as at St. Pierre, or at R. 2789 (Vironvay). On this latter bridge work was in progress, for men were seen to be laying a light girder across a missing arch.

Thirty-three Bomber Command Blenheims also attacked targets near Les Andelys in the afternoon at about 1400 hours. Eighteen of the aircraft concentrated on woods and troop movements north of the Seine, in particular attacking a mechanised column at Richeville, six miles east of Les Andelys. The other fifteen attacked woods and movements in the loop on the southern side of the Seine, opposite Les Andelys, the French having requested particular attention to the wood of La Mare. Three of the Blenheims were lost on this operation. Fighter cover had been arranged, but in less strength (12 aircraft) than usual, for the great bulk of fighter effort on this day was put on to the protection of St. Valery-en-Caux. These twelve Hurricanes (of No. 151 Squadron), however, missed their rendezvous with the Blenheims.

The next operation of the day (1530-1600 hours), was designed to harass the German bridgehead at Vernon, for sixteen A.A.S.F. Battles were directed against movements in the Forêt de Bizy, on the south bank of the river. The wood was bombed, but no movements of importance were seen. Cover was supplied by A.A.S.F. fighters, and some of the Battles reported that they had seen Hurricanes go in to attack nine Heinkels which were bombing Pacy-sur-Eure. There seems to be no other record, however, of this combat.

The last attack of the day in the area of the Seine crossings was at about 1845 hours, when nine Bomber Command Blenheims were directed against concentrations in the wood of La Mare, in the loop opposite Les Andelys. The wood was attacked, but the Blenheims ran into a formation of some fifteen enemy fighters. One Blenheim claimed to have shot down two of the enemy, but four Blenheims were damaged, and three were lost. A.A.S.F. Hurricanes (No. 73 Squadron, operating from Dreux) had been ordered to supply cover, and these were certainly in the vicinity, but they appear to have been engaged in destroying a Do.17, and not to have encountered the enemy fighters.

This rather expensive operation was succeeded by one which was a complete blank. Six A.A.S.F. Battles at 1820 hours left Sougé to attack tanks and M.T. on the road Etretat-Le Havre, and thereby impede any German movement which might be threatening against the latter. The attack was planned in response to a special request from the French Admiral at Le Havre. The aircraft patrolled the road for an hour, under A.A.S.F. fighter cover, but failed to see any targets except two A.F.V.'s near La Mare Goubert, which were bombed. Five of the Battles returned with their bombs, while the other released bombs unintentionally over Le Havre-Belville aerodrome, where a British aircraft was seen. The same

June 11th

stretch of road was also patrolled by 9 Bomber Command Blenheims, under A.A.S.F. fighter escort, in the neighbourhood of 1930 hours; they were instructed to attack A.F.V.'s only, (since other convoys might be our own forces), and seven aircraft returned with their bombs unreleased. These attacks would probably have been more usefully directed not between Etretat and Le Havre, but between Etretat (or Fécamp) and St. Valery-en-Caux, for the Germans, having broken through to Fécamp, were concentrating first on destroying the main body of the 51st Division and the IXth Corps, rather than advancing straight on Le Havre.

BOMBING OPERATIONS: (b) By night: German communications in France

By night the intention was for 18 A.A.S.F. Battles to keep up a running attack on targets on the north side of the Seine between Vernon and Pont de L'Arche, with the main effort directed against Les Andelys. Sustained attack was ordered, to interfere with the sleep of the German soldiers. Six other Battles were intended to attack columns near Forges, Gournay and Gisors. But of these twenty-four aircraft, only five took off, bad weather preventing the remaining sorties: and of these five, four actually dropped bombs, in and around Les Andelys. One pilot reported that a new bridge was being constructed at Vezillon.

Bomber Command aircraft were not for the most part on this night directed against Somme or Seine targets, for only ten Whitleys were put on to these. They attacked communications at Abbeville, Amiens and Fleury. A considerable force was, however, despatched against the Meuse-Ardenne lines of German reinforcement, in the form of 18 Wellingtons and 19 Hampdens. Towns such as Laon, La Fère and Soissons, where the creation of blocks would impede the German thrust to the Marne, were also attacked by a smaller force of 9 Hampdens. The five aircraft sent against Givet, on the Meuse, had the not unusual experience of failing to locate the town, for mist was often particularly thick over this stretch of the river.

Against targets in Germany (Hamm and Cologne) only four sorties were directed on the night of June 11/12th. The great innovation of the night was the despatch of 36 Whitleys against Italian objectives, which is dealt with separately below.

FIGHTER OPERATIONS

Fighter activity on June 11th, apart from escorts to bombers, began, as far as the A.A.S.F. Hurricanes were concerned, with patrols over the Lower Seine area. These were designed to interfere with any enemy dive-bombing. Their exact details have not been preserved, though it is known that No. 73 Squadron was patrolling Elbeuf-Vernon-Evreux in the morning and that No. 17 Squadron was similarly employed over Le Havre. At 1420 hours, however, a signal was despatched to B.A.F.F. to the effect that while Le Havre (whence calls for fighter protection were proceeding to England) should not be neglected, the centre of gravity of A.A.S.F. fighter patrols should henceforth be St. Valery-en-Caux. It was this which caused the alteration in the evening orders of No. 17 Squadron: for their instruction to patrol late evening (11th June) and early morning (12th June) from Caen over Le Havre was altered into an instruction to patrol

over St. Valery-en-Caux. In all during the day the A.A.S.F. fighters carried out seven patrols, involving 59 sorties.

The Hurricanes of Fighter Command were from the beginning of the day directed to operate for the benefit of the 51st Division and their accompanying troops, for Fighter Command was instructed by Air Ministry to concentrate patrols in the neighbourhood of St. Valery-en-Caux. During the day these patrols were thus carried out:-

Time Up and Down	Number of aircraft	Line of Patrol	Enemy Forces encountered
0930 - 1110	19	Le Tréport - Dieppe - Fécamp	Nil
1245 - 1435	19	Le Tréport - Dieppe - Fécamp	In combat with 3 He.126
1330 - 1530	20	Le Tréport - Dieppe - Fécamp	In combat with 20 Me.109 and 12 Do.215 and Ju.88 (which had just bombed ships in Le Havre)
1440 - 1625	29	Le Tréport - Dieppe - Fécamp	Nil
1635 - 1835	21	St. Valery-en-Caux	Do.17s and Me.220 seen but not engaged
1850 - 2030	21	Le Tréport - Rouen - Fécamp	In combat with Me.109s Ju.88s and Do.215s.
2000 - 2120	18	Dieppe - St. Valery-en-Caux	Nil

Thus Fighter Command sent out 147 sorties during the day for the protection of the St. Valery district, at an average strength of 21 aircraft each patrol. Deducting time for gaining height and distance, they probably covered the area for about seven hours in all. The most striking claim was made by No. 111 Squadron, which had been involved in the two major combats: for this Squadron claimed, without loss to itself, to have destroyed 8 Me.109 and 4 Do.215 definitely, and probably to have destroyed an additional 6 Me.109 and 2 Ju.88. The protection afforded to the 51st Division, since it extended to only seven hours, was obviously not enough for their desires. More frequent patrols, however, would have meant operating in less strength, which would have been costly and inefficient. The effort on the part of Fighter Command was in fact considerable, when it is remembered that our appropriately placed aerodromes in Southern England were limited: that the scheme of landing and refuelling in France had now been dropped: that many Fighter Command Squadrons were still recuperating from the Dunkirk fighting: and that the

June 11th

primary responsibility of Fighter Command was the interception of German aircraft over this country. The 147 sorties for the protection of St. Valery were, however, to be exceeded the following day.

MAY 3rd - JUNE 11th

OPERATIONS AGAINST ITALY: (a) Preparations, May 3rd-June 11th

It is now appropriate to consider the progress of air operations against the new enemy, - Italy. Plans for bombing Italian targets had been drawn up before the German attack on the Netherlands, for the probability of Italian intervention had been long foreseen. A note by the Director of Plans, dated May 3rd, 1940, stressed the following principles of attack:-

27.5.40
Document
No. 46

- (1) that our attacks should be by night, or under cloud cover by day.
- (2) that in view of the difficulty of locating the small and dispersed oil and power targets in Italy by night, attack should primarily be directed against the four most important industrial centres: namely, Turin (Fiat, aero-engine and automobile works), Milan - Sesto-San Giovanni (Breda, airframe and components), Genoa - Corrigliano (Ansaldo and Piaggio, propellers, engine parts, metal frameworks, tubes etc.), and Venice - Porto Marghera (variety of industrial targets at port of Venice). After this, progress could then be made against the remaining five big airframe and component factories and then against the oil refineries and tank farms.
- (3) Sustained harassing attacks with long delay-action bombs against these industrial centre would also have a powerful moral effect against the Italians, whose psychology was "ill-adapted to war."

It was also considered that weather conditions in Italy would normally favour the ~~attacker~~ and that the Italian air defence organisation was undeveloped. Moreover, the three most important centres - Milan, Turin and Genoa - were less than 150 miles from the French frontier.

Concrete proposals for implementing these plans, should Italy declare against us, were discussed towards the end of May, the Air Ministry suggesting that up to four Wellington Squadrons should be employed from bases in the South of France. Air Marshal Barratt by no means welcomed this addition to his responsibilities, and he is found on May 29th protesting to this effect: "It may well be that within a few days, the British Air Forces in France will be engaged in an intense struggle to maintain the very weak Allied line in front of Paris and to secure their own position and their base and lines of communication which are already threatened by superior air strength. -----

Under the circumstances, I can only view with concern the additional commitment now proposed. I recognise the value and possibilities of the plan, but am doubtful as to the weight of attack that could be maintained against Italy on the slender administrative basis proposed, while I am certain that the introduction of a new force in France at this juncture must add materially to the risks of the present situation."

29.5.40
Document
No. 27

S.W.C.
10th
Meeting

On May 31st a meeting of the Supreme War Council agreed that the Allies should undertake offensive operations against industrial and oil targets in North West Italy, at the earliest possible moment, should the Italians declare against us. To this end, plans were to be concerted by the naval and air staffs of the two countries, and a meeting of such representatives took place on June 3rd in Paris. There was thus no doubt that the

French had agreed in principle to operations against industrial Italy: but the course of the discussions on June 3rd rather suggests that the French were perhaps keener on the naval bombardment of Genoa than on assault from the air. The initial French reservation that such activity should take place only as a measure of retaliation by now seems to have been dropped.

31.5.40
Document
No. 38

It was, of course, apparent that the operations of up to 48 British bombers from the end of a line of communications 600 miles long would hardly in themselves break Italian morale; but it was considered by the Air Staff that "a sharp blow at the very outset even if not very widespread or sustained might have effects of outstanding importance." Agreement was reached that the A.O.C.-in-C. B.A.F.F. should have no operational responsibility over the new force, but that he should be in administrative control, and be responsible for preparing the organisation. For this purpose Group Captain Field and the 71 Wing H.Q. personnel, who had been at Nantes since their withdrawal from operations on May 17th, were utilised. On June 3rd, together with two servicing flights, they were detailed to proceed to the aerodromes of Salon and Le Vallon (about 30 miles North West of Marseille) which had been placed at our disposal by the French. Group Captain Field was placed in command of the new enterprise, the code name of which, as a change from the customary fierceness of "Panthers" and "Eagles", was the more ~~inoffensive~~ "Haddock".

Arrangements were now hastened on in the South of France as the convoys and the petrol and ammunition trains arrived, and by June 10th Group Captain Field was able to report that the two aerodromes were ready for operations. An operation instruction had also arrived, and details had been concerted with No. 3 Group. The plan was now that, as a beginning, one squadron of Wellingtons should come out, operate for two nights before returning, and be replaced by another squadron.

Some arrangements had also been made for the defence of the new force, though not without difficulty: for Air Marshal Barratt had been instructed to find A.A. defences out of his slender B.A.F.F. resources. Eventually the services of the 53rd Heavy A.A. Regiment with thirteen 3 inch guns were obtained from the base defences at Nantes, where A.A. reinforcements were shortly due to arrive from the United Kingdom, and these were supplemented by four Bofors taken from the A.A.S.F.

Fighter defences in the area were still more of a problem. At the meeting in Paris on June 3rd, General Vuillemin had told Air Vice Marshal Sholto Douglas (D.C.A.S.) that there was then a fighter groupe at Lyon, one north of Toulon, and a third on its way to the South-Eastern area. Three French fighter groupes (of 36 aircraft each), could also be released to undertake the defence of the South Eastern area, said General Vuillemin, if the British could send 20 fighter squadrons to the North of France: The proposed exchange was not likely to find acceptance by the British; and when Air Marshal Barratt signalled that so far from there being three French fighter groupes for the defence of the area (as the D.C.A.S. had now informed the A.O.C.-in-C., Bomber Command), there were in effect none, he was instructed by Air Ministry to find fighter protection for the area from his own command. It is not clear what arrangements, if any, were eventually made, but by June 10th, when the two aerodromes were declared ready for operations, defences were certainly negligible: for the French had very few fighters to cover the whole of Southern France and the British A.A. guns and personnel were still on the way from Nantes.

JUNE 11th/12thOPERATIONS AGAINST ITALY: (b) The events of June 11/12th

Such was the state of affairs when the Italians plunged into hostilities on June 10th. An operation was consequently ordered for the night 11/12th: and the details of it as finally settled on the 11th June were that during the day 12 Wellingtons of No. 3 Group should go out to Salon, while 36 Whitleys of No. 4 Group went to the Channel Islands to refuel. Wellingtons and Whitleys would then operate during the night against the selected targets, the Whitleys returning to this country after refuelling in the Channel Islands, and the Wellingtons returning to their temporary base at Salon.

The Whitleys duly carried out their programme, or as much of it as they could achieve. Their primary target was the Fiat works at Turin, and six aircraft did in fact claim to have hit this with their bombs. Five more attacked subsidiary objectives - railways at Turin, docks at Genoa, the Ansaldo works at Genoa - and one dropped bombs over the Fiat area on estimated time of arrival. The great majority of the force, however, did not reach Italy at all, for heavy storms were encountered over the Alps, icing conditions were severe, and many engines failed. In all twenty-three aircraft of the thirty-six turned back with their mission incomplete. One aircraft, which was apparently seen over the target area, was lost.

The lot of the Wellingtons was hardly more fortunate than that of the Whitleys. The twelve aircraft duly arrived at Salon about 1530 hours on the 11th: but they did not succeed in leaving the ground at all for their night operations. The reason for this makes surprising reading: for Group Captain Field the events of the evening must have been something of an incredible nightmare. The sequence of events was apparently as follows:-

- 1530 hours - 12 Wellingtons arrived at Salon -
for operations against Italy.
- between 1600 and 1930 hours - A staff officer of General Gama, Commander of the 11th Groupement de Bombardement, communicated to Group Captain Field a message from the General stating that operations against Italy would not be carried out.
- 1925 hours - Executive order for operation received decyphered at Group Field's H.Q.
- between 1925 & 2215 hours - Group Captain Field received "a large number of telephone messages from various French authorities" stating that the operation was forbidden.
- 2145 hours - Air Marshal Barratt received a message from General Vuillemin, requesting that the operations against Italy should be stopped.

JUNE 11th/12th

- about 2155 hours - Air Marshal Barratt telephoned the Air Ministry, and was told to communicate with the Prime Minister, who had gone out to France during the day.
- about 2200 hours - Air Marshal Barratt telephoned General Ismay, who was with the Prime Minister at General Weygand's headquarters. General Ismay saw the Prime Minister, "who gave as his opinion that operations should proceed."
- 2215 hrs. - Group Captain Field rang up Air Marshal Barratt and explained that he had received protests, "one from the General Commanding the Region, and one from the *Député de la Marine*, to the effect that the French government had expressly forbidden that the operations against Italy should take place from French soil."
- 2300 hours - Air Marshal Barratt again rang up General Ismay, who said "that the chiefs of the British and French governments had agreed that the operations should proceed, that it was impossible to stop the aircraft which had already started from England, and that to try to stop the aircraft which were based in France would only spoil an operation which had already been agreed to and to which we were committed."
- About 2/15 hours - Air Marshal Barratt accordingly rang up Group Captain Field and said that the operations should be proceeded with.
- 2215 - 0027 hours - Group Captain Field's "telephone (June 12th) hardly stopped ringing" to tell him from French sources that the operation was not to be carried out. (This included messages from naval authorities at Toulon, and three from General Houdemon, Commander of the 3rd French Army, in person).
- 0027 hrs. - The first Wellington began to taxi into position for take-off; numbers of French military lorries were immediately driven on to the aerodrome, by the orders of the local French air commander, who had instructions to prevent at all costs the British aircraft from taking the air. The lorries were dispersed to achieve this.

June 11th/12th

about 0045(?) - Operations cancelled by Group Captain Field, since the time was by now too advanced, the weather had deteriorated badly in the mountains, and the French action could only have been countered by the use of force.

Such was the curious story of the first attempt to bomb Italy from the South of France. Documents at present available do not clear up the underlying mysteries of the incident, but it is possible to make a guess at the truth. It seems a reasonable assumption that the French, desperately pressed by the Germans, were anxious not to encourage the Italians to greater activity than necessary. During the day of June 11th, the Italians had shown no highly aggressive spirit, and the French may have hoped that if they themselves kept quiet the Italians would too. Thus the French, who had ridiculously inadequate means of dealing with Italian air retaliation, violated their clear agreement with us about action at the earliest possible moment. Equally, when in the course of a day or two it became clear that the Italians were bent on something a little more vigorous than a mere paper declaration of war, the French revised their opinion and allowed the 'Haddock' operation to proceed. This is surmise, but it accords with the attitude which France had at first adopted (that Italian ~~industry~~ was to be bombed only by way of retaliation) and with the extreme pains taken by the Allies before June 10th to avoid the slightest provocation to Italy.

JUNE 12THMILITARY SUMMARY

In the North, the day of June 12th saw the last details in the combatant existence of the 51st Division, to which reference has already been made. Major-General Fortune ordered the cease-fire at 1030 hours but hope was apparently not immediately given up in London, and in consequence a certain amount of wasted effort was expended by the navy and the air force during the day. Thus the bombing of certain German batteries which commanded the beaches of St. Valery-en-Caux, asked for from naval sources at about 0850 hours, was carried out by about 1330 hours, after the Division had surrendered. During the day too, a very considerable effort was made by Fighter Command to keep the St. Valery area under a protective patrol, most of which was wasted from the point of view of the land forces, though it provided protection to the evacuation fleet off-shore. By 1812 hours, however, after H.M.S. Harvester, ordered to investigate, had reported no sign of fighting, hope of evacuating the bulk of the 51st Division was abandoned. An order was sent from the C. in C. Portsmouth to begin the withdrawal of his ships from their positions off St. Valery, leaving only small craft to look out for stragglers.

At Le Havre the embarkation of French troops and British elements sent on to help in the defence of the port had made progress. 12,000 French had now been sent westward to Cherbourg, while 7,000 French and 5,000 British remained to be taken off. Many of these were manning defensive positions; and the outermost of these, at Lillebonne, was attacked by the Germans before mid-day. The port of reception, Cherbourg (where the newly appointed commander of what was intended to be a newly constituted B.E.F., Sir Alan Brooke, arrived on June 12th), had been bombed repeatedly during the night 11/12th, but its main facilities were fortunately still intact. The evacuation of Le Havre proceeded steadily during the night of the 12/13th, and was successfully completed by the morning of the 13th June.

While the Germans in the North were capturing the 51st Division and much of the French 9th Corps, and pressing on to Le Havre, further south their ring was gradually closing in on Paris. From the Vernon bridgehead they had now penetrated to Evreux. In this sector there were still British forces opposed to them; for elements of the Armoured Division were in support of General Pettiet (under General de la Laurencie) near Le Neubourg, while elements of the Beauman Division were along the line of the River Risle, and as far forward as the railway between Le Neubourg and Evreux. Moreover an advance brigade of the newly arrived 52nd Division had been ordered up to Conches, whence it was supposed to move forward in an effort to recapture the Seine line, in company with the French 3rd Corps. As the artillery of the Brigade concerned had as yet not arrived, the prospect of action in its absence caused the Divisional Commander to appeal to the C.I.G.S. for close bomber and fighter support. This appeal reached Air Marshal Barratt via the Air Ministry the following day. The answer given was that the slender resources of the A.A.S.F. had to be devoted to the critical situation in the Seine "pocket" as a whole.

/Further

June 12th

Further to the right the situation was also precarious, for north of Paris the Germans had crossed the Oise in the region of Verberie, and the French line was back to Senlis. Along the Oise from its junction with the Seine to Senlis, the enemy was thus within twenty-five miles of Paris. From Senlis the line now ran to Mareuil-sur-Ourcq, and thence southward across the Marne, for the Germans had now forced a considerable bulge south of Chateau Thierry. The French line then regained the Marne midway between Chateau Thierry and Epernay.

To the east of Epernay, however, the situation was again precarious, for the German advance with armour from Rethel past Reims had now penetrated to Châlons-sur-Marne. Between Châlons and St. Menehould was confused fighting, and great enemy pressure, for it was here that the German advance could, if it was so desired, branch east to the rear of the Maginot Line. From St. Menehould the French line as yet ran north to Buzancy, and thence still securely eastwards through Stenay, Montmedy and Longwy.

Taking thus the grand lines of the situation, the Germans had now crossed the Seine and were less than fifty miles from the west of Paris; had cross the Oise and were less than twenty miles from the north of Paris; had cross the Marne, and were less than fifty miles from the east of Paris. Further east they were in a position, if they chose, to send the armoured forces at Châlons eastwards against the Maginot Line instead of westwards against Paris; while there was also every indication that the Maginot Line might soon be attacked by a frontal assault as well.

BOMBING OPERATIONS (a) The Seine area

The bombing attacks by day on June 12th were for the most part directed against targets in the vicinity of the Seine crossings. At dawn nine A.A.S.F. Battles were despatched against a reported pontoon bridge at Vezillon, just south of Les Andelys. The aircraft, however, were unable to find a bridge there, and consequently attacked roads and woods in the neighbourhood.

Bomber Command also operated in the morning, sending eighteen Blenheims to attack concentrations in the wood of La Mare, opposite to Les Andelys. Concentrations were not seen, but sections of the wood were set on fire. The operation was covered by A.A.S.F. fighters, which had already been patrolling St. Valery from Caen, and which met the Blenheims at the mouth of the Seine to escort them to their target. One Blenheim was lost.

Attacks on Seine targets were renewed in the afternoon, for round about 1515 hours 12 A.A.S.F. Battles attacked the neighbourhood of the Le Manoir railway bridge. The bridge was found to be under repair; it was hit, the working party was scattered, and dumps of nearby building material were destroyed. Other aircraft attacked a convoy found locally. Shortly afterwards (1550 hours) 12 more Battles were supposed to attack a pontoon bridge again reported at Vezillon. Visibility was poor, however, and five aircraft failed to locate targets. Two or three of the pilots attacked what they thought to be a completed bridge, without observing results, while one claimed the destruction of a complete bridge north of the road bridge at Courcelles. One of the aircraft was attacked by three Me.109s.

/The

June 12th

The last bombing operation of the daylight hours was by 15 Bomber Command Blenheims at about 1645 hours; again sent to attack concentrations in the woods opposite Les Andelys, they again failed to see enemy troops, but set parts of the wood on fire. For this operation fighter cover was once more supplied by A.A.S.F. aircraft, for Fighter Command could not operate usefully beyond Rouen, and in addition it was on this day fully occupied over St. Valery-en-Caux.

BOMBING OPERATIONS: (b) The Oise area

A morning attack (0930 hours) was also made, in response to specially urgent French requests, against bridges over the Oise North of Senlis. Twelve A.A.S.F. Battles were directed against pontoon bridges at Verberie, Pontpoint and $1\frac{1}{2}$ miles South of Chevières. As a result of the operation, for which French fighter protection was arranged, the destruction of all three bridges was claimed. One Battle was shot down, and one compelled to make a forced landing.

BOMBING OPERATIONS: (c) near St. Valery-en-Caux.

In the afternoon a special operation was undertaken on orders from Air Ministry, without reference to the A.O.C.-in-C., B.A.F.F. This was the bombing of a German battery which dominated the beaches at St. Valery-en-Caux, requested by the naval sources in control of the attempted evacuation. Twelve Bomber Command Blenheims were despatched, of which two were lost and three failed to find a profitable target. About 1330 hours the remaining seven bombed a gun emplacement (causing an explosion of ammunition), tanks, and what was thought to be an artillery observation post. This, however, was in fact too late to be of service, for, as indicated above, the 51st Division had surrendered at 1030 hours.

BOMBING OPERATIONS: (d) By night. German communications in France

Bombing operations by night were also partly directed against targets in the Seine area. Fifteen A.A.S.F. Battles were despatched to attack the approaches to Les Andelys on the northern side of the river, and the woods on the south, but only seven succeeded in reaching the target area. Vernon was observed to be in flames, but no enemy movement was seen, and the pilots were prevented from observing their bombing results through flares fired by the enemy. One Battle was lost in these attacks.

The operations of Bomber Command aircraft were smaller in scope than usual, since the Wellingtons of No. 3 Group cancelled a projected attack on the Black Forest area because of an unfavourable weather forecast. Small forces of Whitleys (4 for each operation) were directed against communications at Amiens and Aulnoye: while thirty Hampdens were ordered to attack railway targets, roads and river crossings at Laon, Neufchatel, Villers-Cotterets, Charleville, Hirson, Recogne and Rethel. Many of these sorties were wasted, for 3 of the 8 Whitleys and 11 of the 30 Hampdens failed to bomb. One of the Hampdens was brought down by our own balloon barrage at Harwich.

FIGHTER OPERATIONS

The A.A.S.F. fighter operations of June 12th were concerned with three tasks:- cover for Battles and Bomber Command Blenheims: patrol over Le Havre: and patrol over St. Valery-en-Caux. An early patrol over Le Havre by No. 1 Squadron was abandoned on account of bad weather: but a
/later

JUNE 12th

later patrol, by No.17 Squadron, succeeded at 1300 hours in catching some He.111 bombing ships near the harbour. The Squadron claimed the destruction of 4 He.111 and 1 He.113 for no less to itself. The deficiency of the records makes it impossible to present a chronological sequence of patrols, but it is apparent that the A.A.S.F. fighter squadrons were fully occupied in these duties, using Caen-Mathieu as a refuelling ground. Up to 1800 hours 6 patrols had been carried out, involving 49 sorties; while as late as 2100 hours No.1 Squadron was ordered to refuel at Caen and patrol St. Valery-en-Caux.

For Fighter Command, June 12th was the biggest day since the peak point of the Dunkirk operations. Every effort was made to put a continuous patrol over St. Valery-en-Caux for the benefit of the 51st Division, as the following chronology indicates:-

Time Up and Down	No. of A/C	Line of Patrol	Enemy Forces Encountered.
0505-0645	16	Area St. Valery-en-Caux	Nil
0830-1030	23	" " " " "	Some E/A seen but not engaged.
0913-1100	22	" " " " "	Nil
1029-1205	18	" " " " "	Nil
1245-1415	22	Cover for Blenheims bombing a battery at St. Valery-en-Caux.	Nil
1520-1645	21	Area St. Valery-en-Caux	Nil
1645-1830	22	" " " " "	Nil
1915-2050	21	" " " " "	Nil
1950-2125	15	" " " " "	Nil

Thus from England 180 sorties were put up over St. Valery-en-Caux, covering the area for about 8 hours in all. It was thus extremely unfortunate that when such an effort was being made, most of it was wasted from the point of view of the land forces, since fighting at St. Valery had ceased before mid-day.

PREPARATIONS FOR WITHDRAWAL

Two decisions on the subject of evacuation were taken during the day of June 12th. The first related to the "Haddock" force in the South of France, whose future was naturally in doubt after the fiasco of the preceding night. In a meeting of the War Cabinet at 5 p.m. on June 12th. the Prime Minister asserted that General Vuillemin had broken his agreement for fear of reprisals, and that it was clear that further attacks would have to be carried out from the United Kingdom only. D.C.A.S. accordingly reported to Air Marshal Barratt that the Prime Minister had reluctantly come into line with the French about not using their bases for attack on industrial Italy, and instructed him to "pick up the party and remove

W.M. (40)
163rd
Conclusions.

JUNE 12th

12.6.40
Document
No. 31

remove it en bloc to base." These instructions, however, like so many orders received by the Haddock force, were soon to be reversed.

ibid

The letter of the 12th June from the D.C.A.S. to Air Marshal Barratt which ordered the withdrawal of the Haddock party from the South of France **also** suggested preparations for a wider evacuation. "It is possible that the line may break at any time. ---- Will the French 'pack up' or will they try to go on fighting a sort of guerrilla war? In any case, however, the C.A.S. feels that you should start to make your preparations for a quick withdrawal from France. ---- You will, of course, take all possible steps to ensure that items of equipment (including A.A. guns) of which there is a particular shortage will be got out first. ----- You should make certain that there is a refuelling base for your fighters somewhere near the coast. ---- All these steps should be taken as unostentatiously as possible, as it is obvious that we should not give the French any impression that we are preparing to leave them in the lurch. The C.A.S. feels, however, that we should be foolish not to take precautions for any unfortunate contingency that may arise. --- In the meantime every possible step is to be taken to keep your squadrons, both bombers and fighters, up to strength in aircraft and crews during the ensuing period of operations."

13.6.40
Document
No. 8

Before this important letter reached Air Marshal Barratt he himself at 1200 hours on the following day was to despatch a signal to the C.A.S. requesting a directive for the event of a cessation of hostilities by the French.

JUNE 13thMILITARY SUMMARY.

With the surrender at St. Valery-en-Caux on June 12th, and the completion of the evacuation of Le Havre during the night of June 12/13th, the remaining British forces were now all south of the Seine. The positions of those immediately concerned with the fighting were between the rivers Risle and Iton, in the area a few miles west of Louviers and Evreux. In this area, under the 3rd French Corps (Xth Army), forces of the Armoured Division (the 3rd Armoured Brigade) now held some of the more northerly positions, while advance forces of the 52nd Division (157th Brigade) were being moved up to occupy some of the southerly positions. In reserve, along the Risle from Pont Authon to Beaumont-le-Roger was the Beauman Division, with but 1600 men, 20 anti-tank guns and 8 x 18 pounders. Other forces of the Armoured Division (the 2nd Armoured Brigade) were being withdrawn to Le Mans, where General Brooke had now arrived to take over command of the B.E.F.

13.6.40
Document
No.19

The French line, at the end of the day of June 13th, was described in a signal from B.A.F.F. H.Q., approximately to this effect. From the mouth of the Seine the line ran to Louviers (but omitting the ground in the loops of the Seine south of Rouen, and between Elbeuf and Louviers). From Louviers the line ran Evreux (evacuated) - Ivry to the Seine again at Bonnières. The Germans were thus over the Seine between Elbeuf and Bonnières at a varying depth of 5 to 20 miles; they had pressed south between Vernon and Evreux, had advanced to Ivry, (35 miles west of Paris) and were within easy reach of Dreux. From Bonnières the line was then described as following the Seine and the Oise to the Forêt de l'Isle Adam, about 20 miles North of Paris. From here, however, it left the Oise, and dropped south-eastwards to Meaux on the Marne, through the villages of Bouqueval and Villepinte, at which latter point it was less than 10 miles from Paris. Thus the armies defending Paris to the north had obviously fallen back considerably during the day; during the night they were to retire still more drastically.

From Meaux the line then followed the Marne to La Ferté Sous Jouarre. Here, however, began the German pocket across the Marne, extending as far South as La Ferté Gaucher, about 40 miles east of Paris. From La Ferté Gaucher the French line ran south of Montmirail till it regained the Marne near Epernay, and more or less followed the river through Châlons practically down to Vitry-le-François. From here it followed the Canal de la Marne au Rhin to Brabant-le-Roi: but from this point to Buzancy, forty miles to the North, B.A.F.F. had no knowledge of the position. The inference was that the French positions along the Marne were now hopelessly sundered from those further north, which ran from Buzancy to Stenay, Montmédy, Longwy and eastwards. Moreover, those German forces (including, it was now estimated, four armoured and two motorised divisions), which had thrust so strongly past Reims and Châlons-sur-Marne down to Vitry-le-François were now definitely beginning to play the part which had been feared since June 11th. Instead

June 13th.

of crossing the Marne towards Paris, they were moving eastwards towards Verdun and St. Mihiel. This move may have come either because the French had offered considerable resistance along the Marne east of Epernay; or because the armies of Paris were retiring southwards and would probably avoid encirclement: or because the more westerly German forces were quite capable of dealing with the French there; or else simply because the campaign was planned that way. In any case, the Maginot Line would now soon be exposed to attack from the rear, and the turning movement which began in the Sedan area on May 13th/14th would, after describing a circle to the right through Northern France, have come to its logical end.

W.M. (40) 163rd Conclusions. (5 p.m. June 12th). The extent to which the situation appeared hopeless to the French was now very clear. The previous evening (June 12th) the Prime Minister had given the Cabinet an account of the meeting of the Supreme War Council, which had just been held, and at which General Weygand had made an extremely discouraging report. The burden of the Generalissimo's report had been that the German divisions were twice as numerous as the French: that they had added 55 divisions and 3,000 - 4,000 tanks to their effectives since the beginning of the war, whereas the Allies had entered lightly into the conflict without the necessary preparations: and that the French armies were now on their last line of resistance, which was already penetrated in two places. In addition, General Weygand was unwilling to see Paris destroyed by bombardment, and Marshal Petain was pressing M. Reynaud to sue for peace. On June 13th the Prime Minister again flew to France, to confer with M. Reynaud (10.15 p.m. June 13th). at Tours, and returned in the evening to present his Cabinet with even worse news. General Weygand had now declared for an immediate cessation of hostilities, so that the French army might be preserved in a sufficient state of cohesion to maintain internal order: and M. Reynaud had asked for France to be released from her obligation not to treat separately with the enemy. In this pass there was little that we could do to bolster the declining fortunes of France, and M. Reynaud in desperation could only appeal for the immediate succour of the United States.

RETIREMENT OF THE A.A.S.F.

13.6.40
Document
No.8

The disastrous military situation was thus appreciated by Air Marshal Barratt in a signal to the C.A.S. timed 1200 hours, June 13th. "The progress of the Battle of France has so far given no indication that the French armies can check the German advance even where the former have been assisted by the formidable water obstacles of the Aisne, Somme, Marne and Seine. Information up to 0900 hours to-day shews that German elements have crossed the Seine in three pockets west of Paris and that one pocket is probably being rapidly extended towards Dreux R4.3 by armoured formations. There has been an enemy advance on a wide front South of Senlis and the enemy appear to be crossing the Marne in some strength between Meaux and La Ferté. On the Aisne (Marne?) a breakthrough by armoured formations was made on 11th June East of Chateau Thierry and these elements are now believed to have travelled East and recrossed the

June 13th

Marne at Chalons-sur-Marne where the bridges had not been blown. My impression in regard to the various French liaison officers attached to my staff is that they regard the situation as virtually hopeless and that they hourly expect a decisive breakthrough. Evacuation of civil population from Paris and all the threatened areas has been proceeding at great pace, and for the past three days there has been intense congestion on all roads leading South." The Air Marshal then proceeded to ask for a directive in the event of his units being forced back to the sea, or of the French ceasing hostilities.

12.6.40.
Document
No. 31

Such a directive had, in fact, virtually been supplied by the D.C.A.S.'s letter of the previous day, of which account has been given ~~in~~ and which had not yet reached Air Marshal Barrat's hands. It was supplemented, however, by the following message from Air Ministry, originated at 2010 hours on June 13th. ".....in the event of a decisive break through your action should be to retire in the direction of Nantes or Bordeaux. Your subsequent action must be dictated by the course of events, but so long as the French army is fighting you should endeavour to continue to render support. In such an event evacuation must not take place without instructions from the British government. In the event of a sudden cessation of hostilities by France you may take immediate action at your own discretion to evacuate your force as rapidly as possible to U.K."

Of the various German advances which had brought about such a state of affairs, that towards Dreux was the most immediately dangerous from the point of view of the B.A.F.F. If this were pressed southwards to Chartres instead of turning in eastwards to Paris, not only would the armies of Paris now have hostile forces in their rear, but the aerodromes used by the British forces would be considerably endangered. Of these, the foremost and therefore the most dangerously placed, were Chateaudun and Herbouville. The obvious direction of retirement was towards Nantes, the base port; for this would not only enable the British squadrons to operate a little longer free from a German threat to their ground positions, but would also be convenient for evacuation, if this were eventually necessary. To retire in the direction of Nantes, however, had two disadvantages; in the first place the French Air Forces were retiring due South of Orleans, and thus Air Marshal Barratt would no longer be able to work in close co-operation with General d'Astier; and in the second place aerodromes were extremely limited.

It was to discuss this situation that Air Marshal Barratt called on General d'Astier during June 13th, when a decision was agreed in principle that the British forces should be allotted aerodromes in the square Rennes-Le Mans-Saumur-Nantes. The function of the British air forces was to operate in support of the B.E.F. and the remains of the French Xth Army. When some of the suggested aerodromes were prospected, however, they were found to be crowded with French aircraft (serviceable and unserviceable), and unable as yet to receive British Squadrons. In spite of this the German advance during the 13th June seemed to Air Marshal Barratt to have assumed such menacing proportions that in the evening he ordered the evacuation of Chateaudun and Herbouville, while the ultimate destination

This move is not elsewhere confirmed in the records. The main forces travelling East from Chalons were those which had advanced from the Aisne and turned left when they reached the Marne.

/of

June 13th

of some of the Squadrons concerned was still unsettled, it was agreed that the Battle squadrons of 75 Wing from Herbouville (No. 88 and 103) should eventually proceed to Nantes, after standing by at Souge and Houssay until the ground echelons were ready to receive them. But no destination had been settled for the Hurricane squadrons (No. 1 and 242), from Chateaudun, beyond a temporary arrangement that the aircraft should proceed to Caen, and the ground parties to Souge, and there wait until an aerodrome was found for them. The ground echelons accordingly moved off from Herbouville and Chateaudun during the night 13/14th June, leaving rear parties and aircraft to operate and carry out their moves on the following day.

The danger in regard to the German advance was rendered still worse by news of forthcoming French army dispositions. Apparently during the evening of June 13th, Air Marshal Barratt learnt of two projected moves, for the usual French "Demande a L'Aviation Britannique" for the following day contains these sentences: "Au cours de la nuit du 13 au 14 juin, l'armée de Paris doit se replier sur la ligne; forêt de Rambouillet, Vallée de Chevreuse, Juvisy. La mission de l'Aviation de Bombardement au cours de la journée du 14 juin est exclusivement la couverture de la gauche de l'armée, manoeuvrant en retraite sur l'axe Rouen-Argentan, en vue de couvrir le littoral." The retirement of the forces defending Paris to a line south of the city was in fact carried out during the night 13/14th June.

Though this meant that the Germans could now occupy Paris on the following day, the move was not in itself disadvantageous to the B.A.F.F. positions. The interval between the new line South of Paris, and the Tenth Army retreating westwards was, however, ominous; and when on June 14th it became clear that, by a further retreat South of Orleans, this interval was to be enormously widened, Air Marshal Barratt was left in an impossible situation. For it was obvious that the Tenth Army could not possibly be stretched from Caen to Tours, and equally obvious that the few oddments of B.E.F. alone in the Le Mans area could provide little protection. Hence, not only would the aerodromes near Vendome, from which evacuation was ordered on the night of June 13/14th be endangered, but the newly selected positions at Saumur, Angers and the base port of Nantes would be open to German penetration. The full implications of this situation, already implicit by the evening of June 13th, were to determine Air Marshal Barratt's actions.

BOMBING OPERATIONS: (a) Intended Scale of Effort.

The scale of effort intended for June 13th was very large, and the extent of it was indicated in a message from the Prime Minister to M. Reynaud and General Weygand, which ran as follows:- "The R.A.F. will make a further increased effort to render assistance to your valiant hard-pressed forces June 13th and onwards. During the daylight hours 13th, all available Blenheims to the number of 60 will be ready to attack targets indicated by General Georges through Air Marshal Barratt. Ten squadrons of fighters will also work from England /within...

13.6.40
Document
No. 1.

June 13th.

within the limits of their range. Night 13/14th, 182 * heavy bombers will be available to attack targets as desired by General Georges. In addition to above support from this country, you will of course, have the 6 Bomber and 5 Fighter Squadrons of the A.A.S.F. under the orders of Air Marshal Barratt. Special instructions have been issued to ensure that these Squadrons are kept up to full strength in aircraft, pilots and crews."

12.6.40.
Document
No. 25

The Prime Minister's telegram to M. Reynaud had its counterpart in a signal originated at 1940 hours on June 12th from the Air Ministry to Air Marshal Barratt:- "In view of critical situation in France Prime Minister has promised fullest possible air support during the next few days and particularly tomorrow (June 13th). C.-in-C. Bomber Command has been told to place maximum number of sorties at your disposal. You should make full use of these. It is suggested that targets selected for day bombers should be those best calculated to have immediate effect of delaying forward elements of enemy troops. It would help the morale of the French troops if day bombers could approach and return from the air targets over them."

BOMBING OPERATIONS (b) In the Seine Area.

The bombing operations of the day began at dawn with an armed reconnaissance by six Battles. These searched the area Vernon-Evreux-Louviers-Foret de Bizy in bad visibility, but such hostile columns as they saw seemed on the whole small and unimportant. Some bombs were dropped, including an attack on A.A. positions. The fighter cover arranged for the operations was unable to function owing to bad weather, but none of the Battles was lost.

An attack was then prepared against columns in this area, for reports continued to come in of German movements there. At about 1050 hours ten Battles took off (two being prevented by bad weather over their aerodrome), but of these only five succeeded in reaching the target area, bombing, and returning. They found and attacked tanks and convoys, but they also ran into Me. 109's, and these presumably accounted for some of the four Battles which were lost.

Fifteen Blenheims of Bomber Command were also directed against these targets, but seven of the aircraft failed to locate them. Of the remainder,

This figure was 162 when passed to General Weygand by Air Marshal Barratt, according to copies in A.H.B. Records.

/between ...

June 13th

between 1300 and 1330 hours four Blenheims attacked the Forêt de Bizy, and three a cross-road and some M.T. at Louviers. Arrangements for fighter cover for these operations are not clear, except that the Bomber Command aircraft had a rendezvous with fighters at 1215 hours over the area.

Another attack was delivered on Seine targets during the afternoon. Eighteen Blenheims were directed against concentrations or crossings in the neighbourhood of Pont de l'Arche, Les Andelys and Vernon. Of these, five attacked M.T. at Vernon, at about 1600 hours, three attacked Criquebeuf, near Pont de l'Arche, one was shot down by an Me. 109 before bombing, and nine failed to bomb on account of bad visibility. What fighter protection, if any, was afforded is again not clear.

BOMBING OPERATIONS: (c) In the Marne Area.

The remaining attacks of the day were delivered against targets in an entirely different area, that of the Forêt de Gault, some fifty miles east of Paris, and a few miles south of Montmirail. An urgent French request indicated the forest as a fruitful target for it was said that it was sheltering 500 or even 1,000 tanks: accordingly twelve Battles were despatched (of which one was lost), and delivered an attack at about 1500 hours on the wood and on convoys nearby. Parts of the forest, which was seen to be crowded with M.T., were set on fire. Many German aircraft were seen in the vicinity, including Me. 109's, Ju. 87's, and 15 Hs. 126, and this fact, together with the heavy A.A. experienced, was usually a sure indication of the direction of a German attack.

In consequence of the obvious importance of the target, the operation was then repeated, and Bomber Command aircraft were also included in the attack. All available Battles, to the number of 26, were despatched from the A.A.S.F. and of these 17 bombed tanks seen in the wood, and probably hit an ammunition dump. Three of the aircraft did not drop their bombs: and six machines were lost as a result of intense A.A. and the activities of German fighters. Four of these were seen to be shot down by Me. 109's before they reached the target. Among the convoys noted in the district by the Battles was one of 150-200 tanks moving South-west midway between Montmirail and Provins. At about the same time as the attack by the Battles, (1730-1900 hours), 15 Blenheims of Bomber Command also attacked the forest. Four of these aircraft were shot down, and one was compelled to make a forced landing in France. It was the responsibility of the French to provide fighter cover for these operations: but whether this was in fact provided is not recorded. The losses entailed suggest that if provided, it was ineffective.

/BOMBING ...

June 13th.

BOMBING OPERATIONS: (d) By night. German communications and concentrations in France.

By night the A.A.S.F. Battles undertook no operations, for they had operated at rates far beyond "maximum intensity", during the day. Bomber Command, however, supplied the largest number of sorties (164) yet undertaken during the campaign. Their activities were distributed to the benefit of both the Seine and the Marne fronts, most of the attacks being arranged to produce a harassing effect. Against communications in the 'Seine' area, aircraft operated as follows:-

- 6 Wellingtons and 5 Hampdens against Pont de l'Arche
- 6 Wellingtons and 5 Hampdens against Les Andelys.
- 4 Wellingtons against Ferges-les-Eaux (located by only 1 aircraft).
- 4 Wellingtons against Gournay
- 4 Wellingtons against Fleury
- 4 Wellingtons against Gisors
- 6 Wellingtons against Vernon (where oil or gas tanks were probably hit).

Against communications North of Paris the following sorties were directed:-

- 4 Wellingtons and 8 Hampdens against Beauvais (large fires caused).
- 4 Wellingtons against Creil (located by only 2 aircraft).
- 4 Wellingtons against Verberie (one also bombed a convoy near Senlis).

Against communications in the Aisne-Marne area the following were despatched:-

- 4 Wellingtons and 7 Hampdens against Soissons (two of which did not reach the town).
- 6 Whitleys against Chateau Thierry (bombed by only three aircraft).
- 4 Whitleys against Dormans.
- 4 Whitleys against La Ferte sous Jouarre (two of which bombed other targets).
- 8 Whitleys and 8 Hampdens against Reims (of which 9 aircraft duly delivered their attacks against the South and South-West exits).

Against communications and sheltering places North of the Aisne the following sorties operated:-

- | | |
|---|------------------------------------|
| 5 Wellingtons against the Forêt de Nouvion, near Guise | } (all attacks caused large fires) |
| 5 Wellingtons against the Forêt de St. Michel, near Hirson | |
| 5 Wellingtons against the Forêt de Gobain, near Laon | |
| 6 Whitleys and 8 Hampdens against Laon (including railways: 6 did not locate targets here). | |

/12 Hampdens ...

JUNE 13 AH

12 Hampdens against the sidings at Fargniers, near Laon (attacked by 10 aircraft).

12 Hampdens against Hirson (including railways; 4 did not locate targets here).

6 Whitleys against railways at Charleville (attacked by 4 aircraft).

Thus, 44 sorties were directed to the specific benefit of the battle in the Seine area: 20 sorties for the benefit of the armies defending the north of Paris: 41 sorties for the benefit of the struggle near the Marne: and 59 sorties against communications which might be used to reinforce any front. The majority of these attacks were successful, in that the roads or railways or woods were located and attacked by the vast proportion of the aircraft. Twenty of the sorties attacked secondary or other targets, but only eight failed to find any target, and during the night only one aircraft was lost. How far the attacks were successful in the essential sense of holding back German reinforcements and supplies it is impossible to estimate.

If the activity recorded above is compared with that foreshadowed in the Prime Minister's message to M. Reynaud and General Weygand, it will be found that the promise of a large bombing effort was fully redeemed. The A.A.S.F. Battles made 54 sorties - a big effort for six squadrons operating every day: the Bomber Command Blenheims made 48 out of a possible 60 sorties: and the Bomber Command heavies made 164 out of the promised 182 (or 162) sorties.

FIGHTER OPERATIONS

The work of the British fighters on June 13th is very imperfectly recorded. No. 1 Squadron's Form 540 has an entry which is obviously for the wrong date: No. 17 records bad weather, and no flying: No. 242 records only a move beginning at 2100 hours: No. 501 records nothing: and only No. 73 Squadron gives any specific details. It seems however, that bad weather much hindered operations, but that this did not apply to Caen, whence some patrols were carried out along the Seine and over Le Havre. Several German aircraft were encountered during these flights. Caen was by now out of communication with B.A.F.F. H.Q. at Olivet, and arrangements were made for the delivery of instructions by aeroplane. It was not until the evening of the 13th June that B.A.F.F. learnt of the surrender of 51st Division on the morning of June 12th: hence until this time the patrol from Caen over St. Valery-en-Eaux was still ordered.

After the 180 sorties over France on June 12th, the effort of Fighter Command was drastically reduced on June 13th. Two squadrons record a patrol in the neighbourhood of 1430-1600 hours, apparently to Dieppe and Le Havre, but Fighter Command summary makes no mention of this. There was a strong evening patrol (1930-2130), Boulogne - Le Havre and during the day six aircraft, acting under Coastal Command, were escorting the evacuated troops from Le Havre to Cherbourg. This, however, seems to be the total of activity for the day in connection with French operations.

It has been shown that the bomber effort for the day was fully up to the scale promised to the French. The

JUNE 13TH

fighter effort, however, was much less intense. The A.A.S.F. Hurricanes were hindered by bad weather, but in the case of Fighter Command the effort slackened largely because the aircraft were being held back in readiness to intercept raids on Cherbourg. Intelligence had been received of probable German operations in this area: but in fact no plots were traced during the day, and hence the British fighters were not called upon to go across and intercept.

OPERATIONS AGAINST ITALY.

At the end of the day of June 13th a further decision was made in connection with operations against Italy. Since the events of the night 11/12th June, when the French lorries had prevented our aircraft from taking off at Salon, some "fairly bitter recriminations" (in the phrase of General Howard-Vyse) had passed between the Allied leaders. It will be remembered that on June 12th, Air Marshal Barratt had been instructed to recall the 'Haddock' organisation: but a message to B.A.F.F., H.Q. from Air Ministry at 1640 hours (13th June) now stated that General Vuillemin had indicated that the operation could proceed. No reason for this change of attitude on the part of the French is recorded, but it is possible that, as suggested above, they had now abandoned hope of the Italians remaining more or less passive. Thus during the night 13/14th June instructions were sent that the Wellingtons in Southern France should not after all return to England, and that the ground organisation should remain.

JUNE 14th

MILITARY SUMMARY: ORDERS FOR PARTIAL EVACUATION.

By June 14th (the day on which the French government moved from Tours to Bordeaux) it was quite clear that the French 'line' was ceasing to exist, and that, as General Weygand told General Brooke, the armies were being split up into isolated groups. In the opinion of General Weygand no co-ordinated defence was possible after the German penetration of the Seine-Oise-Marne line: and during the day General Georges, too, declared that the French must inevitably demand an armistice, since every hour of delay was increasing the danger of the army's becoming a rabble.

As far as the British Air Forces were concerned, the essence of the position was expressed in a message from Air Marshal Barratt to the Air Ministry at 1220 hours: "French intend to retire general line as follows -- Caen-Alençon-Tours - line of river Loire to Briar-Clemençay-Avallon-Dijon. --- On left Tenth Army is retiring on general axis Rouen-Caen. Left at Caen, right at Tours. Where it cannot maintain a continuous line on its right in touch with the remainder of the force it is to institute certain anti-tank defences at certain crossings. I am extremely disturbed at this leaves open my aerodrome, line of communications and base port. I have sent my French military liaison officer to General Georges to express my extreme dissatisfaction with situation and to say there is no course open to me but to recommend that British air forces be withdrawn to England since his dispositions provide no protection whatsoever for my force. I cannot see how French Tenth Army can possibly extend further South than Alençon."

The situation was thus that the French line had been stretched to breaking-point. The decision not to defend Paris (which involved the prohibition of British flying over it), and the retirement south of the Loire by the Army of Paris meant that contact could not possibly be kept with the Tenth Army retreating westwards. Theoretically the Tenth Army might be disposed to hold ground from Caen down to Tours: but in actual fact it could not even maintain a line effectively to Alençon. Between Alençon and Tours there was, thus no defence, save the British elements near Le Mans, which were quite insufficient for the purpose. A further additional, but temporary, complication, was the "decision" to defend the Brittany peninsula. According to General Weygand, such a decision had been taken by M. Reynaud and Mr. Churchill on 13th June: and though General Brooke and all the French military leaders disapproved of the plan, they felt obliged to make some preparations to hold a line from Avranches to Nantes. For this the retiring Tenth Army and the British forces were earmarked: though it was in fact almost as impracticable for them to attempt to hold this line as the line Caen-Tours.

Air Marshal Barratt's signal to the Air Ministry, summarised above, had its counterpart in a message, timed

June 14th

Military
narrative
'South of
the Somme'
14.6.40

1155 hours, to the C.I.G.S. from General Brooke. This ran as follows:- "Weygand stated organised resistance has come to an end. French Army disintegrating into disconnected groups. He told me of decision yesterday by government to attempt to hold Brittany. He Georges and I are in complete agreement as to military impossibility of this with troops available. Strongly recommend decision should be reconsidered as it can only lead to further loss of British troops without hope of result. Present plan is to hold back Canadians and Corps troops at Rennes and that the others should reassemble in that area after falling back fighting with Tenth Army on Le Mans. Recommend Nos.1 and 2 Missions should be withdrawn as Weygand and Georges will have no effective control."

ibid

14.6.40
Document
No.8

The representations of our leaders in France were answered in this fashion:- General Brooke was informed that the C.I.G.S. and the Prime Minister knew nothing of the Brittany plan (i.e. - presumably beyond the fact that it had been mooted), and that it was not to be put into operation. On General Brooke's assurance that those forces of the 52nd Division as yet unengaged could not possibly close the gap between the Tenth Army and the Armée de Paris, he was instructed to prepare their withdrawal. The other orders from London may be discerned in a signal from Air Ministry to Air Marshal Barratt, time of origin 2110 hours. "War Office have instructed Brooke as follows. Begins. You are no longer under French Command, but will co-operate with any French forces which may be fighting in your vicinity. In view of your report received stating that organised resistance has come to an end you must now prepare for the withdrawal of your force to the U.K. but this decision can only be taken by agreement between the two Governments. Meanwhile you have full authority to act in accordance with your plan contained in your telegram. All lines of communications troops and available military stores should be evacuated forthwith. Ships are being sent to-night Cherbourg, Brest, St. Nazaire and St. Malo. Report broad outline plan giving ports you intent use and approximate numbers to be embarked. Barratt will be instructed to concert arrangements with you for withdrawal and cover. Ends. You should from now onwards concert action with Brooke instead of Georges and cover movements of the B.E.F. except for retaining sufficient spares etc. As you and Brooke consider necessary you should forthwith withdraw to ports and evacuate all surplus personnel and stores. Aerodromes with fighter servicing parties will be available. Guernsey June 15 and Jersey 16 should you require them. Operation 'Haddock' will take place night 15 and 16 and after depending on situation. Field informed direct and instructed to concert with British Naval authority at Hyères who will arrange ultimate evacuation."

The full situation, as far as the British forces were concerned, was thus that the military could now prepare to evacuate, except for the elements still with the Tenth Army - i.e. some of the forces of

June 14th

Armoured Division, Beauman Division and 52nd Division, for whom an eventual retirement to Cherbourg was envisaged. The air forces were relieved from the duty of co-operating with the French, and told to look exclusively to protecting the B.E.F. withdrawal, save that from the as yet undisturbed South of France a bombing operation was to be carried out against Italy. The essence of the orders sent to General Brooke and Air Marshal Barratt was thus that they should work together, withdrawing to the ports, and evacuating part of their forces. Authorisation for complete evacuation, however, was not as yet given.

While the German pressure across the Seine and the retirement of the French armies was thus forcing the British towards Nantes and evacuation, affairs were progressing no better elsewhere. Military details of German progress on other sectors of the front now appear hardly at all in the Air records, and indeed were ceasing to matter to the British formations. It is clear, however, that during the 14th June the Germans, having occupied Paris, were also as far south-east of it as Romilly-sur-Seine, or possibly Troyes. Moreover in their progress towards the rear of the Maginot line, they had reached St. Dizier, and were nearly at St. Mihiel. The Germans had also by now opened a frontal assault along the Saar: but for the moment had here been repulsed. This, and the fact that the Italians had made no progress in the South-East, were poor crumbs of consolation for our elsewhere routed ally.

MOVES OF B.A.F.F. ORDERED BEFORE PARTIAL EVACUATION.

It has already been explained that the position on June 13th had caused Air Marshal Barratt to order the evacuation of Chateaudun and Herbouville, and to arrange new dispositions for his forces in the same Rennes-Saumur-Angers-Nantes. As a result of the ever worsening military situation, and before the receipt of fresh instructions from Air Ministry, the order was now given by Air Marshal Barratt for the move to these new positions. It was to be carried out in the early hours of June 15th. The intention was that the force should be grouped thus:-

- H.Q. B.A.F.F. - Nantes.
- H.Q. B.A.F.F. (Operational) - Angers.
- H.Q. A.A.S.F. - Angers
- H.Q. No. 76 Wing and 3 Bomber Squadrons
(Nos. 12, 142, 226) - Rennes (and its
satellite.)
- H.Q. No. 75 Wing and 3 Bomber Squadrons
(Nos. 88, 103 and 150) - Nantes
(and possibly satellite)
- H.Q. 67 Wing and 3 Fighter Squadrons -
Angers and Saumur (and 2 Fighter
Squadrons as yet not arranged for).

June 14th

B.A.F.F. Operational H.Q. accordingly closed down at Olivet at 2015 hours on the 14th June, and at the same time opened in what was at that moment intended to be its new location, Angers. Arrangements were also put in hand for two of the fighter squadrons henceforth to operate from Dinard (instead of Caen as in the past few days). They were to be under the command of South Component, which had been in-operative at Laigne since June 12th, and which was now accredited directly to General Brooke.

Such were the moves already arranged before Air Marshal Barratt received the signal reproduced above,* instructing him to concert arrangements with General Brooke for a withdrawal and partial evacuation. This signal, though originated from Air Ministry at 2110 hours on the 14th June, did not reach him until 0500 hours on 15th June, since B.A.F.F. operational H.Q. had moved from Olivet to Angers. When the message was received a fresh plan was drawn up, involving the evacuation of the Bomber Squadrons. This could not be communicated immediately, however, since most of the force was at that moment in the process of moving to the newly allotted stations. (Rennes-Saumur-Nantes, etc.) Some confusion was inevitably caused by a change of plan ordered in the middle of a move: the details of this, and of the new plan itself, are recounted in the record of their appropriate day, June 15th.

BOMBING OPERATIONS: a) The Seine Area

The R.A.F. bombing raids of June 14th were almost all against targets in the area of German penetration across the Seine. At dawn ten Battles of No. 75 Wing took off to carry out their last operation before transferring to Nantes. They were intended to bomb German columns in the Evreux district, but bad weather prevented the delivery of any attack. Much the same experience befell 18 Blenheims of Bomber Command, who sought to attack movements in the same area at about 0830 hours. Fourteen of the aircraft failed to locate targets on account of the low clouds, and only four dropped their bombs - against road communications at Vernon.

At 1300 hours two Battles, sent on reconnaissance over the Louviers - Evreux area, were rather more successful. They discovered and attacked German fighters drawn up on the aerodrome at Le Coudray, near Evreux. These hostile aircraft were now being encountered in the air as far south as Chartres, and it is evidence of the speed of German organisation that they were already using an aerodrome so recently evacuated by the French.

In an effort to hold back a penetration which, if continued, would directly threaten our aerodromes, renewed attacks were tried in the afternoon. At 1530 hours nine Battles set out to attack the woods south of Evreux, and the aerodrome of Le Coudroy.

June 14th

There is no record of their results, beyond the fact that of the three aircraft concerned of No.12 Squadron, two were shot down by enemy aircraft and the other was unable to locate a target on account of the weather. At about the same time - i.e. 1600 hours, 18 Bomber Command Blenheims were again seeking A.F.V.'s and troop concentrations in the Evreux-Ivry-Vernon area. Two of the aircraft were lost: four delivered no attack on account of the weather: and the rest observed no results save a hit on an A.A. battery near St. Aubin-sur-Gaillen. The operation was then again repeated by twelve A.A.S.F. Battles, at about 1845 hours. Attacks were made on the Forest of Evreux, and on M.T. at various points: but Me.109's were fallen in with, and two of the Battles were lost.

On the whole the operations of June 14th in the Evreux area must be regarded as a failure, the weather conditions militating against any great success.

BOMBING OPERATIONS: b) Merville aerodrome

The only operation of the day outside the Seine area was very successful. At about 1836 hours 24 Bomber Command Blenheims attacked Merville aerodrome, which had been reported by a Fighter Command patrol as covered with enemy aircraft. Bombs were seen to fall among the machines, and considerable destruction was apparently caused. German fighters were encountered in the air near the aerodrome, but the Fighter Command escort to our bombers was apparently effective, for only one of the Blenheims was lost. Even more German aircraft were seen drawn up on Aire aerodrome, but by this time the Blenheims had dropped all their bombs.

BOMBING OPERATIONS: c) By night. German Communications in France.

By night the effort was spread considerably wider. Ten Whitleys were intended to attack Seine crossings at Pont de l'Arche, Les Andelys and Vernon, but the bad weather and the possibility of intense operations the following night, apparently caused a change of plan. Four of the aircraft were ordered not to take off, and three of those which had left were recalled. Ultimately one aircraft attacked each target. Similarly seven Whitleys were intended to attack communications leading to the Marne front, at Soissons and Chateau Thierry. Of these one delivered its attack at Soissons and one at Chateau Thierry, and the remainder were recalled. Three railway yards in France were also attacked by small forces - at Laon, Fagniers and Hirson.

BOMBING OPERATIONS: d) By night. German Marshalling yards; the Black Forest, mining the Rhine.

German marshalling yards came in for their usual share of attention, for two or three sorties each were sent against the sidings at Cologne, Rheydt, Duren, Euskirchen, Soest, Oberhausen and Hamm. Most of these attacks (which with the attacks on the French yards, occupied 24 sorties) were actually delivered against the

June 14th

primary targets, and many hits and some explosions were reported.

A special operation (which had been suggested in London) against concentrations in the Black Forest area was also carried out. Large German forces had been observed massed here and in the Rhine Valley beneath, along a line from Karlsruhe in the North practically down to Basle in the South. It was feared that this might betoken an attack against the French positions along the Rhine in the neighbourhood of Colmar, or possibly a turning movement through Switzerland. Hence the consent of General Georges was obtained to the plan of interfering with the German concentrations by firing certain sections of the Black Forest. This had been projected since June 10th, but the weather had been unfavourable and the operation was not carried out until June 14/15th. Twenty-four Wellingtons attacked the Forest east of a line from Karlsruhe through Baden-Baden down to Gengenbach - i.e., the northern half of the observed area of concentration. In spite of recent rains, several fires were caused, and one explosion: but it is impossible to estimate what military value the attack possessed.

In addition to the Black Forest attacks, twelve Whitleys were under orders to drop 'W' bombs - i.e., mines - in the Rhine between Bingen and Mannheim. For one reason or another - accidents, bad weather, aircraft recalled, W/T failure and so on - only two of these sorties eventually claimed to have succeeded in this task. Some Hampdens were also detailed for mine-laying, but washed out because of the weather.

In all, Bomber Command sorties taking off for night operations numbered 72, and of these, one aircraft was lost.

FIGHTER OPERATIONS

There is again very little record of the work of the five A.A.S.F. fighters squadrons during the day of June 14th. Their movements indeed, as recorded in their operational records are highly contradictory. The following facts, however, seem well authenticated. Some patrols were flown from Caen over the Seine estuary, up the river to Vernon and over the German 'pocket' to Pacy and Evreux. In one of these No.17 Squadron was in combat with some Me.109's near Louviers. The order was for such patrols to be flown at squadron strength as often as possible during the day. Escort was also supplied for Bomber Command aircraft in their afternoon attack on targets in the Evreux district, rendezvous being kept at Honfleur. Beyond this, accounts are conflicting. The two squadrons (Nos.1 and 242) evacuated from Chateaudun seem to have had a restless day, for their aircraft were ordered to Caen, while their ground personnel were to wait at Sougé till an aerodrome was found: the aircraft are actually reported (by No.73 Squadron) as arriving at Le Mans - probably a patrol up the Seine and over Evreux: but both Squadrons tell of the aircraft arriving at Nantes. No. 1 Squadron even records patrols carried out from Nantes over St. Nazaire by Nos. 17 and

June 14th

242 Squadrons: but these squadrons do not confirm this, and it is probable that such patrols did not occur till the following day. The same probably also applies to the reported arrival at Nantes, for there is no trace of such orders having been issued to the fighter squadrons until June 15th.

Fighter Command aircraft, apart from supplying escorts to the morning Bomber Command operation over the Evreux district and to the evening attack on Merville aerodrome, flew several patrols over Northern France. They were intended to intercept German bombers attacking on the Seine front, and were flown as follows:-

<u>Time up and Down</u>	<u>No. of Aircraft</u>	<u>Area of Patrol.</u>
0425 - 0625	22	Calais-St.Omer-Amiens-Dieppe.
0630 - 0830	23	Escort bombers to Rouen, then patrol Laigle, Alencon, Vire, St.Lo.
0810 - 0940	21	Abbeville-Amiens-St. Quentin-St. Omer.
1015 - 1215	21	Furnes-Merville-St. Pol-Abbeville.
1039 - 1230	23	St. Valery-Rouen-Poix-Abbeville-Etaples.
1245 - 1425	19	Aumale-Rouen-Le Havre.
1430 - 1600	24	Dieppe, Le Havre, Rouen, Poix, Abbeville.
1525 - 1655	19	Le Havre, Rouen, Poix, Abbeville, Boulogne.
1800 - 1955	22	Escort bombers to Bethune (for raid on Merville aerodrome).
1939 - 2115	18	Le Havre, Rouen, Poix, Abbeville, Boulogne.

Thus, during the day, omitting the patrol purely engaged on escorting the Blenheims against Merville aerodrome, 190 sorties were flown over Northern France, the maximum effort yet put forth since the Dunkirk operations. In accordance with the Prime Minister's promise of June 13th, ten Squadrons were employed, and each of these, if the escorts to bombers are included, made two sorties. There were, however, apparently no combats at all: and the only German aircraft reported were those on the ground at Merville aerodrome, against which the bombing expedition was later successfully despatched.

JUNE 15THTHE EVACUATION PLAN (a) Departure of the Bombers

It has been explained that by dawn on June 15th the A.A.S.F. (except for rear parties), was moving to new locations in the area Rennes, Saumur, Angers, Nantes, and that while this was occurring Air Marshal Barratt received a signal ordering him to work with General Brooke in a scheme of limited evacuation. Air Marshal Barratt's directive clearly instructed him to provide cover for the military evacuation, and to evacuate all "surplus personnel and stores". But the aerodrome shortage near the western ports was most acute and the German menace was very near. The A.O.C.-in-C, (who had not long arrived at Angers), thereupon decided that the Battles could, after all, operate from home; and that their evacuation would relieve the congestion. The Battles were therefore ordered, after completing any operations for which they were already scheduled, to take off for Abingdon; and by soon after mid-day the British bombers had left their bases in France to return to the United Kingdom. This was obviously a fairly wide interpretation of an order to provide cover for the military, and to evacuate surplus personnel and stores; but the decision was undoubtedly sensible, for the situation in France had collapsed beyond all remedy, and further delay would have prejudiced the withdrawal of all the ground personnel.

Orders had now to be conveyed to the squadron convoys engaged on the move towards Rennes and Nantes. This was done by despatch-riders, and during the 15th June and the following day the convoys of the two bomber wings (Nos. 75, and 76 - Squadrons No. 88, 103, 150, 12, 142, 226) made their way towards Brest, their port of evacuation. Thither most of the maintenance units were also directed.

EVACUATION PLAN: (b) Concentration of Fighters for Defence of the Ports.

There remained the fighter organisation, which was to be kept in being to cover the military withdrawal and evacuation. General Brooke's plans for evacuation were as follows:- the Canadian forces which had recently landed at Brest were to be evacuated from that port: Corps Troops from St. Malo: Lines of Communication troops from St. Malo, Brest, St. Nazaire, Nantes and La Pallice; and the 52nd Division (less the elements with the French Tenth Army) from Cherbourg. When the government decided that the situation permitted, the British with the Tenth Army - parts of the 52nd Division, Beaman Division and Armoured Division - were also to be withdrawn via Cherbourg. This plan was complicated by a revised decision of the government during the day that the 52nd Division, except for a few units, must not be embarked without special authority; but at any rate it was clear that the British fighters would be expected to cover as many as possible of the ports concerned. Of these, those within easiest reach of the German

June 15th

German forces were Cherbourg, which was likely to be the scene of a fighting retreat, Nantes and St. Nazaire. For these ports, however, it was possible to provide cover, since aerodrome facilities could be made available within the necessary range.

The dispositions accordingly made by Air Marshal Barratt were to this effect:- three of the five fighter squadrons - Nos. 1, 73 and 242 - were to operate from Nantes, while the other two - Nos. 17 and 501 - were to cover Cherbourg and St. Malo. For this purpose No. 17 and No. 501 Squadrons were placed under the South Component organisation, commanded by Air Commodore Cole Hamilton, who was given instructions to keep in touch with General Brooke, and a free hand to move his force to the best advantage. Their first base was to be Dinard, to which the squadrons proceeded during the day, and to which the servicing organisation from Caen was transferred. Nos. 1, 73 and 242 Squadrons at Nantes were to come directly under Air Marshal Barratt and B.M.F.F. Headquarters, and the A.O.C.-in-C's advanced H.Q. was duly moved westwards from Angers to Nantes during the morning.

A skeleton staff only was necessary for the operations now contemplated, and it was thus possible to evacuate most of the B.M.F.F. H.Q. personnel. The H.Q. personnel of the A.A.S.F., too, were of course no longer needed, since the bomber squadrons had gone and the fighter squadrons were to be otherwise controlled. Equally, evacuation was possible for personnel of No. 67 (Fighter) Wing, except for operations officers retained at Air Marshal Barratt's H.Q. Thus, by mid-day on June 15th the only H.Q. formations left active were H.Q., B.M.F.F., H.Q. No. 2 Base Area (Nantes), and H.Q. South Component. In the South, 'Haddock' force was also still operative, but responsibility for its administration and eventual evacuation was no longer to be a concern of B.M.F.F.

MILITARY SUMMARY

With what was left of the British air forces now concentrating on the defence of two or three ports, the military details in the Air Records become fewer and fewer, and it accordingly becomes more and more difficult to derive from them an exact picture of the German advance. West of Paris, the enemy was now at least as far as Verneuil, but this did not seem to be the major threat at the moment. The British elements with the French Tenth Army in this area - those elements which were not to be evacuated without special permission - were now commanded by General Marshall Cornwall, until recently head of No. 17 Military Mission. They were given the name "Norman Force"; and H.Q. at 2000 hours on June 15th was at Alençon. Here General Marshall Cornwall was in touch with General Altmeyer, the commander of the Tenth Army, who was still preparing to dispose his troops in accordance with the plan for defending Brittany.

Meantime, the evacuation of the military was the principal responsibility of General Brooke, and several thousand soldiers were cleared from the ports during June 15th.

/At

June 15th

At Lo Mans, however, General Brooke was too exposed to the German advance, for there were virtually no protecting forces, and a big thrust south and south-west from Chartres by the German Fourth Army seemed imminent. During the day, in fact, German forces were reported as passing through Chatoaudun, 30 miles S.S.W. of Chartres, and General Brooke moved back to Vitre, 20 miles East of Rennes. Thither Air Commodore Cole Hamilton moved with him, so that he might dispose his two fighter squadrons in harmony with General Brooke's projects. Some reconnaissance, too, could still be supplied, and during June 15th and 16th, six sorties were made from Rennes aerodrome by Blenheims specially detached from the United Kingdom.

While on the Allied left the Tenth Army was retreating towards Brittany, and German forces were exploiting the great gap to the south west of Chartres, affairs elsewhere were in no better state. South of Paris, German infantry were following the French to the line of the Loire: while in the Yonne country, enemy armoured forces were now as far south as Aisy and Avallon. On this day, too, it was claimed by the German High Command that the forces moving east towards the rear of the Maginot Line had captured Verdun, while the frontal assault, (repelled the previous day), was now successful between St. Avold and Sarralbe. It is sufficient indication of the extent to which the French were now dispersed and distracted, that the War Office Intelligence Summary should be compelled to quote German communiqués as their sole source of information about some areas.

BOMBING OPERATIONS: (a) The Seine-Eure area.

The work of the A.M.S.F. Battles before they departed to the United Kingdom was limited to a reconnaissance of the Dreux-Evreux area, and an attack by twelve aircraft at 0945 hours on targets in the same district. Fighter cover was supplied by No.67 Wing. No great concentrations were found: though M.T. and trains being used by the enemy were successfully attacked. Two Battles were lost in the operation, A.M. fire over the whole area being reported as very intense.

The number of aircraft subsequently taking off for Abingdon was reported in the squadron records as follows:-

From Sougé: 9 a/c of No.12 Squadron

9 a/c of No.103 Squadron

(Number unrecorded of No.226 Squadron)

From Houssay: 13 a/c of No.142 Squadron.

12 a/c of No.150 Squadron.

(Number unrecorded of No.88 Squadron)

/The

June 15th

Report
on
A.A.S.F.
page
37

The evacuation of Souge was marked and marred by German air attacks, which it was difficult to oppose, since the main defences had been withdrawn towards the west earlier in the morning. The aerodrome, newly constructed and with ~~no camouflage~~, had also been attacked the previous evening, and the combined incidents have been thus described.- "Three Squadrons - Nos. 12, 103, 226 - a total of some 48 aircraft, were unavoidably upon the aerodrome at the same time, the A.A. guns and Bofors had been withdrawn, and the attacking aircraft had no opposition except from A.A. Lewis guns. The enemy carried out three separate attacks. Some fifteen men were killed and a large number of aircraft were destroyed. Some of the personnel were killed when a bomb burst actually on a slit trench".

The activity of Bomber Command during the 15th June was little more extensive than that of the A.A.S.F. Battles. In the morning (0710 - 0915 hours) six Blenheims were despatched against enemy movements in the Louviers - Neubourg - Evreux district, being instructed to use cloud cover as a substitute for fighter escort. The aircraft found that the cloud cover was insufficient, and hence returned without delivering attacks. The same applied to six other Blenheims sent in the afternoon (1640 - 1935 hours) to attack concentrations in the Forêt d'Evreux. By night unfavourable weather cancelled projected operations by the heavies over Germany, including mine-laying in the Rhine; and it thus appears that the limiting factor on operations was that by day the weather was too good, and by night too bad.

BOMBING OPERATIONS: (b) By night, Genoa.

One operation, however, was carried out by night: the ill-starred "Haddock" force was permitted to strike its first blow. The balance of its maintenance personnel had now arrived, and a further twelve Wellingtons had also come out during the day of June 15th. Eight Wellingtons were now directed against the Piaggio and Ansaldo works at Genoa; but thunderstorms were encountered, and though some of the aircraft reached the target area, most of them reported that accurate location was impossible. One aircraft dropped bombs and claimed direct hits on the Ansaldo works: nearly all the remaining bombs were brought back.

FIGHTER OPERATIONS

The fighter operations of the day of June 15th are not all precisely traceable. One of the A.A.S.F. squadrons - No. 17 - provided cover for the morning operation by the Battles, and from Caen patrolled Louviers - Pacy - Dreux, but it encountered no enemy aircraft. From Le Mans this squadron then took off at 1130 hours for Dinard, where it was presumably joined by the other squadron - No. 501 - detached to South Component. It is not recorded whether patrols were carried out over Cherbourg from Dinard during the afternoon and evening. The remaining three squadrons - Nos. 1, 73 and 242 - were now all gathered at Nantes (Chateau Bougon) where the aerodrome apparently presented a scene of some activity, for No. 1 Squadron records that it had "so many aircraft on it that it looked like several Empire Air Days /all

all at once". Patrols to cover the port and St. Nazaire were already being flown, No. 73 Squadron making three sorties (1020 - 1220; 1600 - 1740; 1800 - 2000). It is not clear whether Squadrons Nos. 1 and 242 also patrolled on this day, or whether they did not take up the patrol until June 16th.

Fighter Command operations over France were on a small scale. From 0515 to 0700 hours an uneventful patrol and reconnaissance of the Cherbourg area was made by 22 aircraft from Tangmere; and there were one or more small reconnaissances of German occupied aerodromes. The battle, however, was passing out of reach of Fighter Command (except in so far as it could have escorted attacks on German-occupied aerodromes), and its activity was correspondingly limited.

JUNE 16th.THE EVACUATION. (a) Military.

Considerable progress had been made with the military and air evacuation by the close of June 16th, some 50,000 men having been embarked at Cherbourg, St. Malo, Brest, St. Nazaire and Nantes. General Brooke's way was now clearer, for in the morning he had been given permission to embark the main forces of the 52nd Division - though not as yet the 157th Brigade, still engaged with the Tenth Army. The 52nd Division (less the 157th Brigade) now prepared to withdraw from Cherbourg, and many of them sailed during the night. One battalion and some A.A., however, were left to defend Cherbourg for the eventual withdrawal of "Norman Force" - i.e. the remaining British troops with the Tenth Army.

Military
Narrative:
"South of
the Somme"
16.6.40.

The real controversy was now about the fate of "Norman Force". For the C.I.G.S's orders to General Brooke were explicit: "They must share the fate of the Tenth Army" - and an assurance to this effect had also been sent by the C.I.G.S. to General Weygand. The Tenth Army, however, was retreating towards Brittany - hoping to retire first to a line from Avranches down to Angers (but with its right flank completely exposed). Retreat into Brittany was, of course, hardly compatible with the British project of eventually withdrawing their "Norman Force" from Cherbourg: and during the day of June 16th General Marshall Cornwall, commanding "Norman Force", certainly placed the Cherbourg project foremost. He ordered the 157th Brigade to extricate, and move from Mortagne to Cherbourg, via Domfront and Avranches; and the remaining elements - 3rd Armoured Brigade and Beauman Division - were also ordered to retire on Cherbourg. His own headquarters were to be set up at Avranches during the night 16th/17th June. If this was not exactly sharing the fate of the Tenth Army, it was at any rate simplifying the work of the R.A.F., for Cherbourg was the least difficult of the five ports to cover effectively.

THE EVACUATION. (b) R.A.F.

The evacuation of the air forces was equally the subject of a little ambiguity: not so much in intention (for Air Marshal Barratt's plans of the previous day were comprehensive, and still held good) as in the degree to which the project could be communicated to the French.

The following is a note from the B.A.F.F., H.Q., Operations Record Book:-

B.A.F.F.
Form 540
16.6.40

"1545 hours. To Air Ministry from A.O.C.-in C. regarding length of time Forces should remain:-

French have only been told officially that we are removing the surplus - in fact we intend to remove the lot.

A.M. is requested to clear up the situation."

Meanwhile, the evacuation plans proceeded with that degree of smoothness which is to be expected in a hurried evacuation: and the bulk of the ground personnel of the bomber wings and squadrons sailed from Brest during the night in S.S. Vienna, and reached Plymouth on June 17th.

JUNE 16th

No.103
Squadron
Form 540
16.6.40

No.73
Squadron
Form 540
16.6.40

The most noteworthy part of the journey seems to have been the road from Nantes to Brest: for No.103 Squadron tells of convoys which "rushed" cross-roads to avoid arguments with the police, and which had despatch riders armed with revolvers riding up and down their length to protect them from interfering civilians. Indeed the situation was naturally "mouvementé", and No.73 (Fighter) Squadron, whose ground personnel had been "lost" at Saumur for a day, speaks of "scènes of indescribable confusion" at Nantes. During the day some of 67 Wing, H.Q., and some of the surplus ground personnel of the fighter squadrons, were also proceeding thence to St. Nazaire or Brest.

Military
Narrative
'South of
the Somme'
16.6.40

The question of the evacuation of stores apparently caused a certain amount of disagreement during June 16th. Evacuation of much of the valuable air stores had fortunately been going on for some days, but there was still a great deal to move. Apparently it was not easy to find an entirely agreeable *modus operandi* with the Army authorities: for during the day General Brooke intimated to the War Office that Air Marshall Barratt was inclined to expect that valuable R.A.F. articles should come first. The two leaders had, however, said General Brooke, agreed to the more valuable items of R.A.F. and Army equipment having "equal priority". Air Marshal Barratt also complained to the Air Ministry, and to General Brooke, that General Fonblanque, at H.Q. Lines of Communication, was not proceeding with sufficient rapidity, but was apparently working on the assumption that stores would be cleared within four days - a period of grace which he thought unlikely to be vouchsafed by the Germans. There is insufficient material in the Air Historical Branch Records, however, to form any judgment on the merits of the opposing views, or even to determine how far there was really a dispute of importance.

MILITARY SUMMARY.

While the evacuation was thus proceeding, the Germans were spreading even further through the length and breadth of France. The French Tenth Army was being slowly but steadily pushed back into Brittany: between the Tenth Army and the "Armée de Paris" there was a gap by now at least fifty miles across, and ripe for exploitation: while even the line of the Loire itself had now been crossed at Orléans. Other German forces to the east having penetrated further south, were moving to strike across the Loire at la Charité: while to the east again, the Germans were as far south as Saulieu - Arnay le Duc - Dijon - Vesoul. The frontal penetration of the Maginot Line effected the previous day, now stretched towards the Marne - Rhine canal. There was thus no question that the French were completely shattered in cohesion: and it is certain that no conceivable endeavour by the small British forces could possibly have restored the situation or checked the rapidly declining French will to resist. From every purely military aspect complete and speedy British evacuation was called for. The only limiting circumstance was political: for if the withdrawal of the last of the British forces would settle French opinion against carrying on the conflict from North Africa, our successful evacuation might obviously be too dearly purchased.

June 16th

By midnight on June 16th, however, that question, though not yet settled, was heavily compromised. The French ministers that evening rejected the British offer of union, and M. Reynaud resigned to make way for Marshal Petain, who had as early as June 5th offered to replace him and make peace. The future was now more than ever ominous: the victor of Verdun had been not the least defeatist of French generals during the last war: he had ties (for example with General Franco) which kept him nearer to the political viewpoint of the enemy than many a more democratic Frenchman: he was known to tremble for the security of family and property should irregular warfare give Communism its chance. Above all, he was a soldier: and it was the French generals who knew, more surely than most, how utterly French military resistance had collapsed. Accordingly it could not be surprising that on the following day, June 17th, the Marshal inquired of the enemy the terms of armistice.

BOMBING OPERATIONS: Milan and Genoa

No bombing operations were carried out by the R.A.F. over French soil on June 16th. The Battles had been evacuated: and for the Bomber Command Blenheims, working from England, the weather was unfavourable. The same consideration caused the cancellation of all night operations, except for a second effort on the part of "Haddock" force. Nine Wellingtons set out from the South of France to bomb targets in Milan: three of them claimed to have bombed Sesto San Giovanni, causing an explosion and fires: and one claimed hits on the Caproni Works, but was aware of no fires or explosions. Of the remaining five aircraft one attacked targets in Genoa, and the other four were frustrated in their effort to locate targets by intense darkness and low cloud. This was the last British bombing operation from French soil, since the withdrawal of the "Haddock" force was ordered during the night.

FIGHTER OPERATIONS

Fighter cover for the evacuation was, of course, the most important task of the British air forces on June 16th. There is, as usual, little record of the patrols flown by the squadrons in France. No. 501 Squadron records that it flew from Le Mans to Dinard, where its duty was to protect Cherbourg (it probably flew there the previous day, however). No. 17 Squadron which had arrived at Dinard the previous day, was up on patrol at 0400 hours, but soon abandoned the task on account of low cloud. Presumably the two squadrons flew other patrols over Cherbourg during the day. The Air Officer Commanding, South Component, under whom the squadrons were placed, moved during the day from Vitre to Redon, following General Brooke.

More detail survives of the activities of the three squadrons at Nantes. The original intention was that they should maintain a patrol of one

June 16th

squadron from dawn to dusk, with half-an-hour's interval between the patrols. No. 73 Squadron has recorded that it patrolled Nantes-St. Nazaire at 1600-1730 hours and 1800-2000 hours, but there is no exact detail of the patrols of Nos. 1 and 242 Squadrons. There were activities by a few German aircraft, however, which were not interfered with by the patrols, for magnetic mines were dropped in the Loire in the morning and at 1000 hours some of our transports in the river were attacked. Other attacks were apparently made at 1245 and 1730 hours. The attack at 1000 hours (which caused the Naval Liaison Officer at H.Q. Lines of Communication to signal to the Admiralty for fighter support) apparently found no opposition because the early patrols were cancelled through fog. The later attacks (which seem to have caused little damage) occurred in the intervals between the patrols. Some success at least was registered against them by British fighters, as the following entry from the record of No. 67 Wing indicates: "Three air raids took place whilst the party were in the transit camp (i.e. afternoon and night of June 16th), but the raiders were driven off, one enemy bomber being shot down by one of our Hurricanes in full view of the thousands assembled there."

No. 67 Wing
Form 540
16.6.40

Activities by Fighter Command aircraft during June 16th were not extensive. Reconnaissances were flown over Cherbourg by three aircraft, 0600-0800 hours and 1215-1415 hours, but little hostile movement was seen. Reconnaissances by three or four aircraft also set out four times during the day to prospect the German-occupied aerodromes at Abbeville, Merville and Bethune. One of these reconnaissances was abandoned after ten or fifteen minutes on account of the weather, and the others were impeded by the same cause.

JUNE 17th

MILITARY SUMMARY

It is not possible from the air records to state the exact stage now reached by the German advance to western and south-western France. It appears, however, that German progress in this direction, in spite of the gap, was not as rapid as in some other directions. This probably occurred because the isolated Tenth Army was already militarily impotent, and the most important German objectives were thus elsewhere. Though there is no evidence that the Germans had yet reached the Loire west of Orleans, east of that city they had secured bridgeheads across the river right down to Nevers. Moreover, the advance down and across the Marne which had reached Dijon and Vesoul by June 16th, was now swinging east rather than south, and was thus directed towards Belfort and Mulhouse, both of which the Germans claimed to have captured on this day. The southern end of the Maginot line was thus exposed to attack from the rear, just as the northern end had been since the capture of Verdun on June 15th. From the military point of view it was thus not unnatural that the French now enquired of the Germans the terms of armistice - an item of news which first reached the ears of our Commanders from the French broadcasts at mid-day.

THE EVACUATION: (a) Cherbourg

W.M. (40)
170th

Conclusions

The news from France, unwelcome as it was in most respects, at any rate solved the problem of how long "Norman Force" would be required to co-operate with the Tenth Army. The Cabinet, in session during the morning of June 17th, apparently heard a garbled version of the French request, for at 1240 hours a message was brought in to say that the French had ceased fire. In consequence during the afternoon General Brooke was ordered to effect a complete evacuation: and thus the withdrawal of "Norman Force" on Cherbourg, already ordered by General Marshal Cornwall against the intention of higher authorities, could proceed legitimately and speedily. During the day all the main elements of Norman Force - Beauman Division, 3rd Armoured Brigade (of Armoured Division) and 157th Brigade (of 52nd Division) - arrived at Cherbourg, and many of them had embarked or sailed by the following morning.

Before the news of the armistice, it had been decided by General Brooke that the two fighter squadrons and the reconnaissance aircraft under South Component should be transferred to the Channel Islands for co-operation with "Norman Force" and the protection of Cherbourg. Accordingly, while General Brooke left Redon for St. Nazaire and evacuation, Air Commodore Cole Hamilton and the remnants of his Army Intelligence Liaison Section proceeded to the Channel Islands, where facilities had been prepared in advance through the Air Ministry. The two fighter squadrons - Nos. 17 and 501 - which had already been protecting Cherbourg from Dinard, also moved to the Islands. An operations room was opened at Jersey at 2330 hours on 17th June.

THE EVACUATION: (b) The Western ports.

Meanwhile at Nantes, Air Marshal Barratt and his staff made the last decisions in regard to evacuation. Plans were drawn up to enable one of the three fighter squadrons at Nantes to be diverted for the protection of Brest, but were then cancelled. (One fighter squadron, however, did appear at Brest-Lanveoc aerodrome and operated for a few hours, but

June 17th

which squadron it was is not clear. In any case, the British evacuation from Brest was already well advanced, and was completed by the evening of June 17th). The greatest centre of need was probably the Nantes-St. Nazaire area, for it was certainly at this stage the most congested. From here, Air Marshal Barratt, during the morning of the 17th June, ordered some rear parties of the Headquarters formations and the fighter squadrons, together with A.A. defence personnel, down to La Rochelle. An advance section of H.Q. B.A.F.F. personnel under Air Commodore Dacre had already proceeded there on June 15th/16th to make necessary arrangements. This line of retreat had been organised because the aerodrome at Nantes (Chateau Bougon) was on the south side of the river, and Air Marshal Barratt had feared that ground parties and A.A. defenders might be cut off from Nantes and St. Nazaire by a German advance. As it happened, it was very fortunate that these parties were directed down to La Rochelle, for the Nantes-St. Nazaire route rapidly became hopelessly overcrowded and chaotic.

At about 1630 hours Air Marshal Barratt issued his last orders, instructing Wing Commander Walters, (who had been in charge of 67 Wing throughout the campaign), to cover Nantes-St. Nazaire with his fighter squadrons until the embarkation was finished. Arrangements were made whereby Brigadier Gill, commanding the military sub-base area at Nantes, should inform Wing Commander Walters when evacuation of personnel was completed - which it was then expected would be late that night or early the following morning. The squadrons were then to fly home and the last servicing parties and Headquarters personnel would depart in civil aircraft, which were to be sent out by Air Ministry. Having completed these arrangements, Air Marshal Barratt then left by air at 1800 hours, his Senior Air Staff Officer, Air Vice Marshal Evill, remaining to act in his place.

17.6.40
Documents
Nos. 16,
17, 18.

Some individual accounts of the evacuation survive, especially by members of No. 73 Squadron. The picture they present is, of course, by no means a complete one, and it may be that any generalisation drawn from them and from those Operations Record Books which mention the evacuation, is quite false. From them the following impressions are gained. When once the parties routed to Brest had arrived there, they had overcome their main difficulties. The final R.A.F. parties, including Air Vice Marshal Playfair and his skeleton staff from A.A.S.F. H.Q. who had been organising the evacuation from the port, left Brest during the evening. They departed in the vessels Stratlaire and Bactai, which arrived at Plymouth the following morning (18th) after an uneventful voyage. By 2300 hours (on the 17th) all British troops and vessels had been cleared from Brest, just before the Germans began a second spell of minelaying outside the harbour. Equally at La Rochelle the British parties escaped unhindered, embarking with 9 lorry loads of ammunition at about 1900 hours in two colliers, the "Thistle Glen" and the "Philip". Here enemy aircraft were twice reported overhead, but no attack was made, and the vessels reached the United Kingdom safely on the 20th June.

The real difficulties apparently all occurred at St. Nazaire. The approach to the transit camp five miles outside St. Nazaire became utterly overcrowded. When on the previous day military police had endeavoured to redirect some parties to Brest, little notice had been taken of these orders by certain contingents, for the difficulty of extricating lorries from the main stream must have been immense.

June 17th

Moreover, a diversion to Brest (a journey of 150 miles) would have demanded more petrol than was being carried, and would have necessitated first returning to Nantes. The records present a fantastic story, of which the following extracts speak for themselves:

67 Wing Form 540
(16th June).

(From the Camp) "The Adjutant assembled the airmen (for whom two of the officers had just found a ship "willing to take" them) and marched them off the docks by a round-about route. Apparently the party was observed, as they were chased by Army Staff Officers and compelled to return to the Transit Camp. There they were allotted a space in a partly completed hangar, but this was objected to by the Adjutant, who took them to a field for safety, cover being available in an adjoining ploughed field surrounded by dykes. The Adjutant then returned to the office of the Embarkation Officer where he stayed until 1900 hours, in an endeavour to link the Wing personnel with another small party. This manoeuvre was not immediately successful, but by reporting each hour he finally succeeded in obtaining written permission to move at 0230 hours on 17.6.40."

Report by Wing Commander MacFadyen
H.Q. B.A.F.F.
(16th and 17th June)

17.6.40
Document
No. 16

(At the Transit Camp outside St. Nazaire, 1100 hours 16th June) "... By this time the traffic jam in the assembly area had become acute, and it was difficult even to move out of the area, and quite impossible to get in. I was informed that the traffic jam extended for two or three miles in the direction of Nantes.

I continued, either to go myself or to send an officer at about hourly intervals, to the Captain-in-Charge to enquire of any news, but none was forthcoming ... During all this time the assembly area was becoming completely filled with troops and transport. I estimate that at least 10,000 personnel were assembled in the area by noon, and I experienced no little anxiety for the safety of personnel when German aircraft flew over the area ...

I again went to see the Captain-in-Charge at about 1500 hours, and this time he informed me that he had received no details of the R.A.F. parties other than that the approximate total was 2,000. I was able to correct this by referring him to his own notes Soon after this I was informed that some military parties had arrived, and after observing the congestion and lack of organisation, had taken matters into their own hands, and marched straight towards the docks. Such conduct could only add to the general confusion, and it was also then obvious that other parties which had arrived in the area after mine, were receiving instructions to move. After strong protest I was eventually given instructions to proceed, and my party moved off at approximately 1700 hours and marched to the dock area. On arrival there it was apparent that we were still at the tail of a long queue of troops, stretching for at least $\frac{1}{4}$ mile along the docks. Progress was very slow, and finally at about 2200 hours my party was somewhere near the head of the queue. I was then informed that the French admiral commanding the port had refused to allow further

June 17th

embarkation that night on account of the danger of lights being shown, and that there would be no further embarkation until 0430 hours the next morning. The decision of the French admiral is difficult to understand as the moon was nearly full that night, the sea was calm, and no lights would have been necessary. I therefore gave instructions for my party to sleep in the streets of the docks for that night, and unfortunately I was not one to take literal advantage of my own instructions! During the night we were frequently treated to an amazing display of pyrotechnics caused by the discharge of every possible French light fire-arm at enemy aircraft which must have been quite three times out of range. The danger to personnel in the docks was much greater owing to the law of gravity, and I personally received a portion of the French defences on my steel helmet.

At 0430 hours the following morning (17th June), my party was ready to move off, but I had still received no further instructions. I then noticed that another party (a R.A.F. one this time!) had skirted mine by coming down a side street and was marching towards the pier from which embarkation was to take place. I enquired of a military policeman if he knew of any instructions, and on receiving a negative reply I also marched my party to the pier. On arrival at the pier, I discovered that the last 100 yards or so was completely packed with troops and that nobody was present in charge. I halted my party a short distance from the mass of troops in order to have some area for dispersion if necessary, but it was necessary to spread part of my party right across the pier to prevent other troops passing us. Once again I felt considerable anxiety in case of enemy air action, as personnel at the end of the pier could have been simply mown down by machine-gun fire. At about 0515 hours some responsible army officers appeared but embarkation into the tenders did not commence until after 0600 hours. Personnel were conveyed in tenders to ships lying about 10-15 miles to seaward from St. Nazaire, and my party was embarked in the "Lancastria" at about 0800 hours."

Account by W/O. Pitman, 73 Squadron
16th and 17th June.

17.6.40
Document
No. 17

"I left Nantes at approximately 2130 hours (16th) (with 4 lorries) for St. Nazaire. Eight miles outside Nantes, I was stopped by the Military Police (red caps) and told to proceed to Brest, because the other port was full. Having only sufficient petrol for a short journey, I unloaded one lorry of men and kit, and ordered the driver to return to Nantes and obtain sufficient petrol for four lorries, for two hundred miles. During the driver's absence, an air raid was made on Nantes; this held up the driver of the petrol lorry, who did not return until 0400 hours (17th) On arrival of the petrol, we found a French soldier hidden in the back of the lorry. I gave him his marching orders. After proceeding about eight miles along the road, I encountered a huge mass of transport, three abreast in some places. It appears that two Companies of transport had got mixed, and the Colonel in charge was having a "blackout" sort out. I left the lorry and went ahead to see the Colonel, and after much talk convinced him that I must go on.

In the jam I encountered a R.A.F. bus, and the driver said that he was No. 1 Squadron and that he had taken some of No. 73 Squadron men to St. Nazaire, and that they

June 17th

were waiting for us to arrive down there, with a boat for the R.A.F. (this appears to be the boat that was sunk). I then decided to ignore the M.P.'s orders and not go to Brest. After juggling with vehicles I at last managed to get the first lorry through the mass of transport, followed by the second lorry, until I had four behind me. I called out that I was going on to St. Nazaire and to follow me. I was answered O.K.

In the dawn (17th) I checked up and found that only one lorry was behind me, instead of four - the men in the back of the second lorry stated that the two other lorries turned out to be Army when it got light. (F/Sgt. Viccars took the Brest Road on reaching the fork, not knowing that the remainder had proceeded to St. Nazaire.) I reported to the M.C. Officer and attached myself to the R.A.F. unit, waiting in a field. I (S/Ldr. Hodgson in charge) took a roll of No. 73 Squadron men and told them to keep together as a Squadron. Late in the afternoon, we marched to the docks (4 miles) and "fell out" on the quay. During this wait, enemy aircraft was overhead and a loud report came from the sea (this was the bombing of the ship we should have caught.).

In the evening we boarded a cargo boat" (The Floristan, whose adventures are subsequently recounted.

Many of the R.A.F. personnel who had reach St. Nazaire embarked on the 'Lancastria', which by noon on the 17th June had some 5,000 soldiers and airmen on board (over twice her normal capacity). Embarkation was by tender, for this ship and the 'Oronsay' nearby were lying some miles off St. Nazaire in the middle of the wide Loire estuary. At about 1400 hours a German air attack took place, using cloud cover. The 'Oronsay' was hit on the bridge. The times of these attacks vary as presented in the different accounts, but a second raid seems to have taken place at about 1530 hours, the bombs missing the 'Lancastria' by some fifty yards. At about 1600 hours a third attack was made, and two bombs of a stick of three struck the 'Lancastria'. One of these apparently plunged through a hatchway and exploded in the bowels of the vessel, blowing a large hole in her side beneath the waterline. The ship sank within about half an hour, but many survivors were picked up by other British and French craft in the vicinity. Casualties, however, were heavy, for it had proved impossible on account of the rapid list to lower many of the boats, and swimming in the water was made difficult by a great effusion of oil from the stricken ship. According to some reports, large numbers of men were sitting on the side of the heeled-over ship, till almost the last, singing "Roll out the Barrel". Survivors were mostly brought back to England, after uneventful voyages, in the S.S. 'John Holt', the armed trawler 'Cambridgeshire', the S.S. 'Oronsay' and H.M.S. Destroyer 'Havelock', all of which had other complements of troops. These sailed either on the evening of the 17th or in the early morning of the 18th June.

Some of the later arrivals at St. Nazaire on June 17th boarded S.S. 'Floristan'. The story of this vessel may be given in the words of W/O Pitman, who had proceeded to St. Nazaire in spite of the efforts of the military police to divert his party to Brest.

June 17th

in bright moonlight, an enemy aircraft flying very low approached the ship; he dropped an object which appeared to be a mine. The aircraft flew on towards us, no doubt thinking it was a boat waiting to be filled with troops. He approached the port side, and all guns opened up, the machine banked, engines then stopped, and it disappeared from my view around the stern of the ship. A loud cheer from that end of the ship, and shouts of "We got him, etc., etc." made the Bren gunner near me cut a notch in the butt of his gun. The boat was packed, men could only sit down, and after our first meal, biscuit tins were used as sanitary buckets around the decks; there was one pump for 4,000 men.

Three days after leaving St. Nazaire, we arrived at Plymouth, for it appears that a submarine was located on our route and the ship was taken out into the Atlantic, for we were steaming in an easterly course for 24 hours before Lands End was sighted."

THE EVACUATION: (c) Marseille

17.6.40
Document
No. 4

While the evacuation at St. Nazaire was, somewhat naturally, of a confused order, another evacuation was not proceeding with the smoothness which its relative immunity from German attentions might have warranted. This was the evacuation from Marseille of 'Haddock' force, whose experiences continued to be unfortunate to the last. At 0150 hours (17th June) a signal from Air Ministry ordered the evacuation of the force - "Concerting with S.N.O. best and quickest means either West to Bordeaux or South to North Africa, making arrangements with French Navy". This reached Group Captain Field before morning, and by 0930 hours the Wellingtons were ready to return to England. Convoys also left for Marseille - though one contingent (the main body of No. 702 Co. R.E.) had only just arrived at Salon from Rennes, and a further party was still on the way from Vitre.

17.6.40
Document
No. 5

At 1149 hours, however, a revised decision was communicated from Air Ministry - as the result of the Prime Minister's request during the morning Cabinet for delay pending further investigation. This new order, to the effect: "Haddock operations to continue till further notice", was passed by telephone to Air Marshal Barratt, and from him the news reached Group Captain Field at about 1230 hours. Despatch riders were accordingly sent off to recall all the transport which had already left for Marseille and the unloading of the remainder was begun. When Air Marshal Barratt, however, rang Air Ministry at 1300 hours to state that the continuation of 'Haddock' operations had now been arranged, he was informed that they had now been cancelled again, and that arrangements for evacuation should proceed. This was the result of the news of the French decision to seek armistice terms. Group Captain Field was accordingly acquainted by telephone from Air Marshal Barratt at 1315 hours, and the arrangements for evacuation were again put in train.

17.6.40
Document
No. 7.

At Marseille the R.A.F. personnel were mostly embarked in the S.S. 'Coulturn', and the 53rd A.A. Regiment in the S.S. 'Alma Dawson', but on account of the congestion of the quays by French merchandise, cranes were not available to load more than light M.T. into the ships. Loading by hand was continued till dark, but was far from completed when at 0600 hours on the 18th June the convoy (with ships also containing civilians and personnel of the military base sub-area) moved off. Large quantities of stores were

June 17th

therefore left behind at the docks, in addition to those that it had not been possible to bring from Salon.

The services of the civil aircraft intended to help in the 'Haddock' evacuation were entirely wasted. The D.C.A.S. gave the order for the transport at 0145 hours on the 17th June: but it was not till 0930 hours that the last machine could take off from this country, because transport aircraft were so few, and the calls on them so many, that there was great difficulty in getting together the required lift. Of the ten aircraft concerned, five (or six) got no further than Bordeaux, where they were held up by the local situation and an absence of petrol. Four (or five) of the aircraft seem to have reached the Marseille area, but by this time the 'Haddock' party was on the move, and the two (or three) aircraft which managed to get into touch with Salon found that personnel had departed. Two or three of the aircraft which reached the south of France did not return at all, and to the loss of the 'Haddock' equipment was added the loss of these machines. It was an unfortunate end to an uniformly unfortunate story.

FIGHTER OPERATIONS

R.A.F. operations in France on June 17th were directed to providing cover for Cherbourg, Brest and Nantes - St. Nazaire. From the meagreness of the records it is impossible to ascertain to what extent cover was provided for Brest, but it appears that the Squadron concerned was at Brest-Lanveoc aerodrome (where a Servicing Flight had been sent by way of preparation) for only a few hours. Nor does any detail survive of the patrols over Cherbourg from Dinard, beyond the following sentences in Air Commodore Cole Hamilton's report: "Fighter cover over Cherbourg was provided from dawn until 0730 hours. Reconnaissance reports indicated little activity in Cherbourg peninsula". Reconnaissances over Cherbourg were also flown during the day by Fighter Command aircraft. A squadron sortie at 0615 hours turned back on account of bad weather: and later patrols of a few aircraft strong reconnoitred the area between 1057 and 1207 hours and between 1724 and 1930 hours. Nothing eventful occurred. Aircraft under Coastal Command were engaged in escorting the evacuating vessels from Cherbourg.

Air Marshal
Barratt's
Despatch:
Appendix P.

Patrols were carried out through the entire day by the three fighter squadrons remaining at Nantes, but in view of the fact that aircraft required servicing and that some aircraft were bound to remain ready for aerodrome defence, intervals between patrols were inevitable. The following are the patrols flown by No. 73 Squadron, the only one to keep a record. Some were by the whole Squadron, some by a flight:-

0500 - 0620	- Squadron
0800 - 0920	- Squadron
1030 - 1210	- Flight
1100 - 1220	- Flight
1400 - 1530	- Flight
1420 - 1650	- Flight
1730 - 1930	- Flight
1800 - 1845	- Flight
2000 - 2100	- Squadron

It thus appears that pilots were making 5 or 6 sorties a day, and the same is probably true of the other two squadrons (Nos. 1 and 242). This, however, though it undoubtedly limited German air activity, could not suffice to eliminate it entirely,

June 17th

for it is recorded that bombs were dropped near St. Nazaire at about 1400 hours (when the 'Oronsay' was hit), at about 1530 hours (when the 'Lancastria' was nearly hit) and at about 1600 hours (when the 'Lancastria' was fatally struck). It would seem that Hurricanes were actually in the air when the 'Lancastria' was hit (and the times of No. 73 Squadron's patrols confirm this), but as the distance from Nantes to St. Nazaire is some thirty miles, it was possible for the fighters to be on their patrol line, but to be unable to intervene. The circumstances are sufficiently explained in the 67 Wing record:

No. 67 Wing
Form 540
17.6.40.

"Wing fighters were several times seen overhead but at approximately 1400 hours an attack was launched on both ships by enemy aircraft which dived out of the clouds. (The 'Oronsay' was hit)..... Soon after the Hurricanes returned, and the loading of S.S. 'Oronsay' continued at 1550 hours enemy aircraft dived out of the clouds and executed another attack. (The 'Lancastria' was hit) Very shortly after the attack the Hurricanes returned and drew off the enemy. Although favoured by clouds one JU 88 was shot down and two others seriously damaged. It is believed that a further bomber was destroyed by A.A. fire"

It was also recorded that there were three raids (possibly mine-laying) during the night at St. Nazaire. One of the raids took place at 2300 hours, when the 'Floristan' claimed to have shot down a low flying enemy aircraft.

During the night 17/18th June, night patrols from Manston over enemy aerodromes in Northern France were first instituted. Single aircraft of No. 604 Squadron (Blenheims) were used for this purpose.

BOMBING OPERATIONS: By night. Oil, railways and river-mining in Germany.

There were no British bombing operations during the day of June 17th: during the night 17th/18th they were all directed against German targets. In very favourable weather conditions the oil-bombing plan was now resumed, for 18 Wellingtons were despatched against the installations at Homburg, 19 Wellingtons against those at Wanne Eickel, 36 Whitleys against Gelsenkirchen and Gelsenkirchen-Buer, 19 Hampdens against Dillbergen, and 10 Hampdens against Homburg. A great number of hits were claimed, and explosions and fires recorded. Of these 102 sorties, only 14 failed to bomb, or bombed secondary targets.

In addition to these operations, 12 Wellingtons, 4 Whitleys and 10 Hampdens were sent against railway yards at Essen, Köln, Rheydt, Wedau, Hamm and Koblenz. Fires and explosions were again caused, and 23 of the 26 aircraft managed to attack primary targets. The least successful group of operations was a renewed effort to drop 'W' mines in the Rhine between Bingen and Mannheim. Four out of twelve aircraft scheduled for this duty reported that they had succeeded in their task. Only one of the 138 aircraft which actually took off for all these operations was lost.

JUNE 18th

THE EVACUATION: (a) Nantes and St. Nazaire.

On June 18th, the last day of R.A.F. operations from French soil, the Germans were ranging at large through vast areas of France. In the East, Toul, Metz, Nancy and Colmar were captured. Down the Saône the Germans had penetrated as far as Louhans: up the Loire to Digoin. The situation in the South-West of France, however, is not well documented, and what documentation exists is **contradictory**. The evidence in the air records relating to any German advance towards Nantes is as follows:-

- 0245 hours - Air Vice Marshal Evill ordered the aircraft at Nantes to be started in case of attack by German troops.
- 0415 hours - The C.O. of No. 73 Squadron carried out a low-flying reconnaissance Nantes - Angers - North of Le Mans - Tours - Nantes. He saw "nothing of more interest than several agitated female refugee cyclists who rode into a ditch on his approach, mistaking him for an enemy machine."
- About 1100 hours - Blenheim reconnaissance reported no movement, but the French insisted that the enemy was entering Nantes.
- About 1500 hours - A rear Servicing-party at Nantes was informed that tanks were coming along the road (see account of 73 Squadron N.C.O. below).

The earliest mention in the War Office Intelligence Summaries of Nantes having been occupied, however, is in the summary for the period 1200 hours June 20th - 1200 hours June 21st - or two days after the departure of the R.A.F. rear parties. It may be, of course, that the usual German advance parties of A.F.V.'s appeared before then.

The situation at Nantes and St. Nazaire in regard to the evacuation may be summarised by a signal from the S.N.O. St. Nazaire at 0730 hours to C.-in-C. Western Approaches. "Embarkation personnel will be completed P.M. to-day Tuesday (18th) but no stores and no M.T. nor is any shipping available for either". Fighter cover had been arranged till the evacuation was finished, and this it was thought would be by 1300 hours. The rear-parties and the fighter squadrons, therefore, took off by air from Nantes throughout the morning: at about 0900 hours Air Vice Marshal Evill left, having been recalled: at 100 hours No. 242 Squadron left: and at 1200 hours No. 1 Squadron.

June 18th

At about this time the S.N.O. requested an extension of cover till 1500 hours. Accordingly, six aircraft of No. 73 Squadron remained behind when the rest of the Squadron took off for Tangmere at 1330 hours, and carried out a further patrol till 1430 hours. At 1345 hours, some transport aircraft left: at about 1400 hours, serviceable French aircraft on the aerodrome left, and some unserviceable British ones were set on fire - six Hurricanes, one Battle and one Harrow. At 1445 hours, the last aircraft of No. 73 Squadron left, and at 1500 hours the Wing Commander and his operations officers took off in an Anson.

One of the final incidents is thus described by an N.C.O. of No. 73 Squadron -

18.6.40
Document
No. 15

"Our last patrol returned at about two-ten (1410 hours). We serviced the machines with difficulty, as two of our petrol tankers had decided that they had been overworked. At last it was finished and we were free to depart. As a final gesture I gave away the Hotchkiss Saloon (one of the Staff cars) to a café proprietor at the corner of the 'drome, who had behaved very well in supplying us with coffee and food when we were without rations.

"We were calmly loading the Harrow and watching the blazing masses and listening to exploding ammunition on the 'drome, when a machine came taxying along in a great state of panic. A Flight Lieutenant, the Intelligence Officer, was screaming at us and throwing both arms about like a madman. His words were difficult to follow, but the gist was such as this:- 'What are you doing here? Get off! Get off! The tanks are coming along the road now. Get off!' This was all very well, but our M.T. driver was about a quarter of a mile away, trying to sell an Austin Seven. I told the Flight Lieutenant that there was plenty of time. Well, that did it. He handed me a torrent of abuse that I really couldn't listen to. I sent for Speed (apparently the missing M.T. driver) and I got the whole of the party about the 'Harrow'. Another five minutes was wasted while I stood and received all the abuse that the aforesaid officer could give me. He left me in disgust, took off, and we followed

THE EVACUATION: (b) Cherbourg.

If the exact degree of German approach towards Nantes is a matter of some doubt, that towards Cherbourg was clearer. By the morning of June 18th advance German forces had begun to enter the Cherbourg peninsula, at Carentan: but, with the Carentan bridge down it was not until the afternoon that forces of any size began to push up the opposite side of the peninsula towards Les Pieux. These were attacked by five Bomber Command Blenheims - an operation described below. French forces were still resisting and helping to cover the British retreat: and the evacuation was safely completed during the afternoon. At about 1600 hours General Marshall Cornwall sailed in the S.S. 'Manxman', and at 1700 hours Air Commodore Cole Hamilton was instructed that his force could be withdrawn from the Channel Islands.

June 18th

This was done the following day (June 19th).

FIGHTER OPERATIONS

The sequence of events at Nantes has already been described. The line Nantes - St. Nazaire was covered from the early morning till about 1430 hours, when six aircraft of No. 73 Squadron finished the last patrol. There is no record of any of these patrols having proved eventful, or of the last stages of the evacuation having been interfered with by German air or land forces.

The cover over Cherbourg was provided from two sources - the two squadrons now in the Channel Islands, and aircraft of Fighter Command, operating from Tangmere. There is no detailed record of the work of the two Channel Islands squadrons, save that up to 1800 hours for the protection of the Islands and Cherbourg No. 17 Squadron had carried out 5 patrols (involving 25 Sorties) and No. 501 Squadron 2 patrols (involving 12 Sorties). There is no record of combats. Patrols carried out over Cherbourg by Fighter Command aircraft from Tangmere are recorded in more detail: they were as follows:-

0432 - 0603	- by 9 aircraft	
1250 - 1402	- by 3	"
1337 - 1525	- by 21	"
1515 - 1700	- by 19	" (escort to bombers)
(&1730)		
1650 - 1830	- by 23	"

The escort to the bombers found, at 1600 hours, a German air attack on the British shipping in progress. Three He. 111's and 7 Me. 109's were seen: it is not clear how much their activities were interfered with, but their bombs missed the S.S. 'Manxman', on which the last of 'Norman Force' were about to sail. Presumably the British fighters, being on escort duty, were not entirely free to neglect their charges - though some of the Hurricanes had apparently made no contact with the Blenheims, for which they blamed delay in refuelling at Tangmere.

BOMBING OPERATIONS: Near Cherbourg

During the morning of June 18th reconnaissance was carried out by South Component for General Marshall Cornwall in the Caen - Argentan - Avranches area. At 0500 hours no movement was seen. Between 0840 and 1030 hours enemy mechanised transport was seen east of the line Caen - Flers. Between 1100 and 1205 hours, enemy mechanised transport and guns were seen to have approached Carentan: and between 1530 and 1630 hours columns were reported as moving through Periers and Lessay towards Les Pieux (about 15 miles S.W. of Cherbourg).

To oppose these forces reported during the morning, General Marshall Cornwall requested some "pretty hefty bombing". What was carried out, was hardly "hefty", since it consisted of a single operation by six Blenheims, one of which did not

June 18th

drop its bombs. The attack was delivered at about 1545 hours, and caused some confusion amongst motorcyclists and light transport which had just passed through Les Pieux. The road surfaces were damaged, and some delay may have been imposed on the advancing forces. In any case, the British evacuation was completed by soon after 1600 hours. There were no other bombing operations during the day.

With the evening of June 18th, the French campaign, as far as the R.A.F. was concerned, may be said to have come to an end. The last squadrons of the A.A.S.F. had taken off for the United Kingdom: the various elements of the B.E.F. had departed: and though the French in some places continued fighting until June 24th, when the armistice with Italy was signed, the Battle of France was to all intents and purposes over. British bombers and fighters still continued, of course, to operate from England against targets in France, notably the ports and the German occupied aerodromes: but the victorious German onrush which began on May 10th had come to a halt against the shores of the Channel and the Atlantic, and a fresh phase of the conflict was now beginning.

TOP SECRET

R.A.F. NARRATIVE

THE CAMPAIGN IN FRANCE AND THE
LOW COUNTRIES

PART V

MAY 10TH TO JUNE 18TH: COMMENTARY

(FIRST DRAFT)

Prepared by
Air Historical Branch (1)
Air Ministry.

R.A.F. NARRATIVE
THE CAMPAIGN
IN FRANCE AND THE LOW COUNTRIES

		<u>Pages</u>
PART V.	<u>MAY 10TH TO JUNE 18TH: COMMENTARY</u>	456 - 481
	<u>The Effect of the R.A.F. on the Campaign</u>	456 - 473
	(a) The difficulty of assessment	456
	(b) Recapitulation of bombing policy	457
	(c) Achievements in daylight tactical bombing	459
	(d) Achievements in night bombing of communications etc. west of the Rhine	460
	(e) Achievements in night bombing of oil and marshalling yards east of the Rhine	462
	(f) The controversy on the use of the "heavies"	463
	(g) Achievements of the Fighters	464
	(h) The "Fighter reinforcement" controversy	467
	(i) Achievements of reconnaissance aircraft	469
	(j) The outstanding achievement: Dunkirk	470
	<u>The Effect of the Campaign on the R.A.F.</u>	474 - 481
	(a) Losses in aircraft	474
	(b) Losses in other equipment	474
	(c) Losses in personnel	475
	(d) Wider effects: analysis of bombing losses to show influence on future bombing policy	475

MAY 10TH - JUNE 18THTOP SECRETCOMMENTARY

The 1940 campaign in France and the Low Countries particularly merits close study. The British air forces involved were, it is true, very small in comparison with those which were built up later to assail the enemy in Africa, in Italy, in France, in his homeland, on the seas, or wherever he showed his unattractive head. But they were very much the heart, soul and body of the R.A.F. at the time. This is the more worth emphasising since the impression has somehow gained currency, in service circles, that the French campaign, for the R.A.F., was a matter for the A.A.S.F. and the R.A.F. Component, with Fighter Command taking a hand at Dunkirk. In truth, however, in addition to the forces in France, the whole strength of Bomber Command was continuously engaged, and a great deal of the strength of Fighter and Coastal Commands was also devoted, in different ways, to the battle. Any extensive misuse of our limited air power at the time might thus have destroyed virtually the entire Royal Air Force. In this sense, the campaign assumes particular significance from the service point of view, for never is it more essential to employ an air force correctly than when it is small in numbers, limited in reserves, confronted with great odds, and beset with demands to be everywhere on every variety of task at the same time. Moreover, the destruction of our air force in 1940 would not only have deprived us of the one offensive weapon left in our hands, but would also have thrown the British Isles open to invasion. The effect of the R.A.F. on the French campaign must thus be judged in close relation to an equally vital consideration - the effect of the campaign on the R.A.F.

I. THE EFFECT OF THE R.A.F. ON THE CAMPAIGN. (a) The difficulty of assessment.

The effect of the R.A.F. on the campaign may be considered first. Unfortunately it is not possible to make statements on this subject in very detailed or precise terms. The result of any given air operation is a matter often better known to the enemy than to oneself, particularly in the days before regular photographic assessment; and the result of a series of operations emerges during the course of hostilities only in broad outline, and is in any case complicated by its inter-relation with many other matters.

Among these complicating considerations may be mentioned the fact that the R.A.F. operations were planned as part of an Allied Air Campaign, in which the French were to bear their part. The records which we have of French dispositions, strength and operations are so incomplete, however, that they cannot be embodied into a continuous narrative, and it is thus difficult to relate the R.A.F. effort as precisely as it should be done to the campaign as a whole. A further, and far more radical complication, was the all-round superiority of the German to the French army. Once the enemy break-through on the Meuse had occurred, the French armies were so obviously unable to deal with the panzer divisions, that it is doubtful whether a degree of air effort many times as great could have restored the situation. This naturally makes it difficult to assess the effect of R.A.F. operations during the campaign: for whatever delay was imposed, for instance, on German panzer penetrations would inevitably be very slight, unless powerful land forces were at hand to supplement the bombing, or unless the bombing itself could be carried out ad libitum by an inexhaustible Air Force.

Barrett
Despatch
para. 80.

Air Marshal Barrett, discussing in his Despatch the effects of the many attacks on bridges, well illustrates this point. The A.O.C.-in-C., as a result of his experience in France, gave as his opinion that, although in general bridges could be effectively destroyed by air attack, "the effect of this bridge - breaking against any enemy as well organized as the Germans is only very temporary, unless it is followed up by determined action on the part of the land forces to exploit and maintain

/the

the break. I do not think that the delay inflicted on the German advance was, therefore, in this case very great, although if a greater strength of bombers had been available it should have been possible to inflict serious losses on enemy troops collecting in the rear of the break and to have impeded new construction on repair".

(b) Recapitulation of bombing policy

Before the general effect of our bombing can be considered, it will be necessary to recall briefly the policy that was followed. The use of the "medium" bombers of the time, the Battles and Blenheims, presents a reasonably simple story. The A.M.S.F. and the Blenheims of No.2 Group, in spite of various misgivings on the part of the Air Staff and of A.O.C.-in-C. Bomber Command, had been assigned the primary task of "collaboration" in the land battle, by impeding the advance of the German columns.²² This task they set about executing on May 10th, when the German attack was launched. By the close of May 14th the A.M.S.F. had suffered such severe losses that on May 15th A.O.C.-in-C. B.M.F.F. decided to divert the force primarily to night operations.²³ From thence onwards the A.M.S.F. was therefore employed primarily in a night role, with daylight attacks delivered only in special circumstances, until the later stages of the campaign, when it was found that the increasing dispersion of the German columns, among other factors, permitted the resumption of daylight attacks without crippling losses. The Blenheims of No.2 Group continued to operate by day throughout the campaign, though after May 20th only with closer or more powerful fighter protection, or else under cloud cover. The operations by the mediums thus fall into two main categories - the daylight attacks with columns or "bottle necks" in front of columns as the primary objective, and the night attacks by the A.M.S.F., which were principally devoted to communications.

The employment of the "heavies" of the time - the Wellingtons of No.3 Group, the Whitleys of No.4 Group, and the Hampdens of No.5 Group - had been a potent source of controversy before the German attack,²⁴ and was to continue so during the campaign. The view which had been most consistently favoured by the Air Staff before May 10th was that the heavies should be employed to attack German oil objectives, combined with harassing action against the main German marshalling yards, with the object, it must be remembered, not only of damaging German oil resources, but of disrupting communications, compelling the enemy to hold back his fighters from the Western front, and stinging him into directing his main bomber effort against this country instead of France. Permission to strike at these targets was not, however, given by the War Cabinet until May 15th.²⁵ Once that permission was given, the main weight of attack by the heavies was immediately put on to German oil, combined with the harassing effort against marshalling yards, attacks by the heavies on communications nearer the front being confined to the equivalent of two squadrons definitely "allotted" to B.A.F.F. Oil, and marshalling yards in the Ruhr, were thus bombed on May 15/16th, and May 16/17th.

By now, however, the French positions on the Meuse had already been utterly broken; the Germans were forging through the gap, and the Prime Minister, visiting France on May 16th, had been converted to the French view that the heavies should be used to attack the German communications across the Meuse. Accordingly on May 17/18th the effort of the heavies was divided between oil and marshalling yards in Germany on the one hand, and the Meuse communications on the other, and this division was continued on May 18/19th and May 19/20th. As the military situation grew ever more critical, the execution of the oil - marshalling yard plan was then entirely suspended on May 20/21st in favour of putting the full weight of the heavies on communications as near as practicable to the front - a change of plan for which the French and the C.I.G.S. had been pressing.

/On

On May 21st/22nd this new plan was further refined by dividing the heavy effort between communications near to the battle front, and a general assault on railways in Western Germany, with the special aspiration of derailing moving trains, though on May 22nd/23rd a few sorties were again directed against German oil. The following night the "heavy" effort was entirely devoted to communications in the Meuse area and the railways leading to the fronts from Western Germany, and this course was followed, with some variation in the area in which communications were attacked, on May 24/25th, May 25/26th (with a few sorties also directed against oil), and May 26/27th. On this night German-occupied aerodromes in France were also attacked, in an endeavour to limit the activities of the Ju.87s. On May 27/28th the effort was divided between communications near the battle front, the railways leading from Western Germany, the marshalling yards of the Ruhr, (which since May 20/21st had been attacked by only half-a-dozen sorties a night), and oil objectives at Hamburg and Bremen. For the next two nights everything then went on to communications, mostly near the Dunkirk area: but on May 30/31st, in addition to these objectives, an attack was again made on a single oil target in Germany. On May 31/June 1st the heavies attacked only the communications behind Dunkirk, but on June 1st/2nd, in addition to these, they also reverted to oil and marshalling yards in Germany - a policy continued on June 2/3rd and on June 3/4th, when by far the main weight fell on oil. With the completion of the Dunkirk evacuation, the whole effort was put against oil and marshalling yards once more.

The intention was now to continue with attacks against oil and marshalling yards, coupled with a general interruption of communications in certain regions associated with the German aircraft industry, until a renewed German offensive in France. This occurred almost immediately, however, on June 5th, and on June 5/6th communications fairly near the battle front were accordingly again included, though the main weight was still kept on to oil in Germany, with a few sorties for marshalling yards. This division of effort was continued until June 8th, when the military situation was again deemed such that nothing could be spared for the oil objectives, and the whole weight of the "heavy" effort was put on to communications and possible concentrations in France, except for a few sorties reserved for the customary marshalling yards in Germany. This line of policy was followed for three nights, but on June 11/12th, after the Italian declaration of war, a fresh diversion of effort followed in the form of an attempted attack on industrial objectives in Genoa and Turin. For the next two nights all attacks were directed against communications and concentrations in France, in an endeavour to bolster up the declining French will to resist, but on June 14/15th, in addition to the communications in France, the German marshalling yards were again attacked, and efforts were made to fire sections of the Black Forest and to lay mines in the Rhine. On June 15/16th and 16/17th operations by the "heavies" from England were cancelled on account of the weather: from the south of France Wellingtons endeavoured to attack Italian industrial targets. The French request for an armistice, on June 17th, then afforded an obvious opportunity to revert to the oil plan, and the effort was shared on June 17/18th between oil, marshalling yards and Rhine-mining. Attack on oil and marshalling yards now continued, with an extension to wider classes of industrial objectives, such as aluminium and aircraft factories. The latter were first attacked on June 21st/22nd, as part of the policy of reducing the weight of the now inevitable German air assault against this country. By this time our bombing policy had ceased to have any relevance to the French campaign, which was to all intents and purposes over, and was being directed in accordance with the new strategic situation.

/Over

Over the whole period, May 10th - June 17/18th, our bombing operations thus fell into five main categories. These were:-

- (1) daylight attacks by the A.A.S.F. and No.2 Group against columns, concentrations and communications;
- (2) night attacks by the A.A.S.F. against concentrations and communications west of the Rhine;
- (3) night attacks by Nos. 3, 4 and 5 Groups against concentrations and communications west of the Rhine;
- (4) night attacks by Nos. 3, 4 and 5 Groups against marshalling yards east of the Rhine;
- (5) night attacks by Nos. 3, 4 and 5 Groups against oil objectives in Germany.

In addition, a minor effort was executed in attacking aerodromes, subsidiary tactical targets such as headquarters and batteries, and other classes of industrial objectives apart from oil, including those in Italy. There was also the river-mining, and the limited bombing operations undertaken by Coastal Command, as in the case of the Dunkirk batteries or the oil storage tanks at Ghent and Rotterdam.

(c) Achievements in daylight tactical bombing.

It would be informative if the results of attack on each of the main categories of objective, at least, could be stated in some statistical detail. This, however, is simply not possible. But a little can be said in general about some of these operations, from which a broad estimate of their effect may be gathered.¹

The daylight tactical bombing of the A.A.S.F. and No.2 Group undoubtedly had its moments of success. There is evidence, in the form of appreciations from military commanders, that on particular occasions valuable delays were imposed on the enemy. On May 12th for instance, the costly operations against the bridges and columns in the Maastricht area held up the German advance sufficiently for General Georges to signal his appreciation of measures which had "definitely relieved the situation".² The same day the attacks in the Ardennes were considered by G.Q.G. to have "checked the German advance and saved a serious situation."³ The following day, May 13th, the Battles delivered an attack near Breda which enabled the retreating Seventh Army "to take up their positions without difficulty",⁴ while at the close of May 14th, after the all-out effort against the Sedan area, General Georges informed Air Marshal Barratt that the air action had successfully restricted reinforcement to the advanced German forces, and thereby enabled the French counter-attack to prevent further enlargement of the Sedan bridgehead.⁵

1. Daylight bombing sorties by the A.A.S.F., May 10th - June 17th, numbered about 528 : by No.2 Group Blenheims, about 1515.

2. page 205.

3. page 206.

4. page 213

5. page 225.

All this, however, was being achieved at a completely prohibitive cost - the A.A.S.F. lost fifty per cent of their bomber sorties between May 10-14th inclusive - and the result was the switch-over of the A.A.S.F. primarily to a night role, from which no such exact bombing could be expected. The Blenheims of No.2 Group continued their daylight operations throughout the campaign, and achieved particularly valuable results over the Dunkirk period. Nevertheless, in spite of the successes, which were real, there were so many factors which limited the effectiveness of our tactical bombing that it could make little significant difference to the broad result of the campaign. The suicidal defencelessness of the Battles, the German concentration of anti-aircraft weapons and fighters at points vital to the progress of their columns, the fact that tactical targets had so often gone "stale" by the time the bombers arrived, the weakness of being compelled to rely on French reports over large areas of the front, all contributed to reduce the effectiveness of the medium bombers. To these must be added, during the first two or three days, the tactical low approach in formation by the Battles, which caused numerous losses from ground fire until it was abandoned in favour of individual attacks from a higher altitude: and the general difficulty of operating the Battles from bases which had to be successively abandoned before the German onrush. Nevertheless the prime reason why the mediums could exert little influence over the campaign as a whole (except in the Dunkirk phase) was none of these things, but resided in the limited force available. Seventeen squadrons of medium bombers (ten in France and seven in England) was the maximum ever in the line for daylight operations, while for most of the campaign the number was considerably less: the French, for their part, had at most a hundred bombers suitable for work by day, and the front to be covered by these forces, leaving apart the comparatively static Maginot Line section, or the later Franco-Italian front, stretched from Luxembourg to the Channel. In such circumstances, however effective individual bombing operations were, they would count for little unless the opposing armies were more or less evenly matched.

(d) Achievements in night bombing of communications, etc. west of the Rhine.

If the second category of attack is considered, the night bombing by the A.A.S.F. against concentrations and communications west of the Rhine¹ - the more general of these limitations equally apply, though for the tactical considerations others must be substituted. The lines of reinforcement most consistently attacked by the Battles at night - those in the Ardennes and across the Meuse - were certainly not "stale" targets, nor were they so heavily defended that attack was impracticable. But they were extremely difficult for Battles,

/with

1. Night sorties in this category by the A.A.S.F. numbered about 488.

with their bad view from the observer's seat, to identify: and again and again a town like Givet, obscured by the mist of the Meuse, could not be found. Bombs were repeatedly dropped on "estimated time of arrival" only, until instructions were issued that this must not be done. Even then the main difference seems to have been that "E.T.A." was not henceforth mentioned in the summaries forwarded by A.A.S.F. It must not, however, be concluded from this that the operations were pointless. They doubtless had a considerable nuisance value: and they were certainly achieved most economically - a remarkable fact in view of the difficulties with the Battles during the period of night training, and the fact that the operations were conducted from bases hastily taken into use during the retreat.

The night attacks by the "heavies" of Nos. 3, 4 and 5 Groups against concentrations and communications west of the Rhine were also part of the general plan of "collaboration" with the armies. The original plan had allowed for the use of only two squadrons of heavies in this connection, and the decision to put more than this small proportion of the heavy force on to forward communications was scarcely welcomed by the Air Staff. It was, however, virtually inevitable in view of the course of military events, and the pressure exercised by the War Cabinet, the Army and the French. From May 17/18th an increasing weight of effort by the heavies thus fell on the Meuse crossings, the communications immediately in front of the B.E.F. and First Army, and the railways leading from Western Germany to the battle zones. What was accomplished by these attacks is again difficult to estimate. On May 28th, after ten nights of these operations, A.O.C.-in-C., Bomber Command conferred with the Air Staff, and a note on their joint opinion ran thus: "Owing to the urgency of the Land Battle, a great proportion of the effort of the heavy bombers had been devoted to attacking at night targets such as bridges, columns, and road junctions in the area of the battle. These were difficult to distinguish and involved operations in the face of intensive opposition, and apart from their psychological value must be considered unprofitable. Unexpectedly good results had in some cases been achieved". If these targets had been difficult to distinguish during the moon period, they would certainly be even more so during the ensuing nights, as the directive of May 30th, consequent on this conference, pointed out: "In the absence of moonlight, experience proves that the heavy bombers cannot operate with sufficient accuracy against road objectives and defiles in the forward area to make an effective contribution to the battle by this means. Moreover, the more important road defiles, such as the crossings of the Meuse, are now so heavily defended with searchlights as to make precision bombing impossible. On the other hand, it is thought that attacks on railway objectives, moving trains and marshalling yards will continue to be effective particularly on clear nights..."

S.4768
Enc.4a.

S.46368
Part I
Enc.64a

It can thus be said, a priori, that the Air Staff expected nothing very much from this form of attack (except against railways, moving trains and marshalling yards) during moonlight, and still less in the absence of the moon. It was for this reason that, as soon as the Dunkirk situation allowed, the main weight of attack by the heavies was taken off the forward communications and directed against the more easily identified oil targets in Germany (those near water) and the marshalling yards, until June 8th, when the military situation in France again compelled a return to more forward objectives. It would not, however, be entirely fair to dismiss this subject by pointing out that, if the Air

/Staff

Staff did not consider the attacks effective, no one else would: for as the conference of May 28th had noted, "unexpectedly good results had in some cases been achieved". Certainly, there was evidence that German communications were becoming disorganised by the end of the campaign - though this must have been the result of demolition and the sheer pace of the German advance, as much as of our bombing activity. A very favourable witness to the results of our night operations against communications near the battle front was Wing Commander Embry, who was shot down on a daylight raid on May 27th and who spent over three weeks getting through the German lines:

A.H.B.
IIH2/689
Part II

"I was most impressed by the work of the night bombers. I formed the opinion that they must on most occasions have found their objectives and their operation throughout the night must have detrimental effect on German morale. I had an opportunity of inspecting a railway station and marshalling yard on the Somme shortly after it had been bombed and there is no doubt the damage was terrific. Trucks and engines had been lifted bodily off the track and thrown on their sides, many of them had been set on fire, the permanent way had been torn up, railway lines buckled and point communications broken. The general appearance was utter chaos and confusion and reminded one of H.G. Wells's film 'Things to Come'."

(e) Achievements in night bombing of oil and marshalling yards East of the Rhine

The attacks on the oil objectives and the marshalling yards east of the Rhine must be considered somewhat differently. These, too, were at least officially a variant of the collaboration plan, (W.A.4c), so long as the objectives attacked were liable to cause disorganisation along the lines of communication of the German Army. In so much as certain objectives outside these lines were also selected, however - for instance the oil plants at Hamburg and Bremen, chosen for their proximity to water and consequent ease of identification - the operations tended to merge into the general strategic plan for the destruction of German oil (W.A.6). The criteria of success are thus - how far were the strategical intentions behind W.A.4c and W.A.6 effectively realised? These, it will be remembered, involved:

- (a) causing disorganisation along the lines of communication;
- (b) compelling the enemy to hold back his fighters from the western front;
- (c) inducing the enemy to retaliate against England, and divert his bombers from attack on France;
- (d) decisively weakening the enemy in his vital oil resources.

It is possible, in two of these four cases, to give definite answers. The enemy appears to have held no great reserves of fighters back to meet our penetrations deep into Germany. The great bulk of the German fighters were identified on the western front, and our bombers did not encounter more than an odd fighter or two by night over Germany. This object, then, failed. Equally clear was the failure to divert the German long-range bomber

bomber force from French objectives. The enemy made no attempt to retaliate for our night offensive against Germany until the issue in France and the Low Countries was decisively settled: for it was not until after the Dunkirk evacuation that small-scale night bombing operations began against this country, and not until the French request for an armistice that anything bigger developed. The Germans thus used the Luftwaffe as they intended to use it - in association with their armies to achieve success in a land campaign - and refused to be diverted from the task in hand.

The degree of disorganisation effected along the enemy lines of communication, and the extent to which his oil resources were impaired, are matters which admit of less clear-cut answers. But it is evident that the Germans were able to move up all the forces necessary for dealing decisively with the allied armies: and it is difficult to believe that the attacks on oil achieved any very great success. Against the German oil refineries, synthetic oil plants and above ground stocks, some 840 sorties in all were directed, and of these just over half claimed to have identified and attacked their primary objectives. The proportion of aircraft actually claiming to have scored direct hits was, however, very much smaller: on May 17/18th, for instance, eleven Whitleys of No. 10 Squadron claimed to have located and attacked the domestic oil refinery at Bremen, but only one reported direct hits. No exact statistics can be given in this connection, but in general it can be said that in by far the majority of cases the results were "unobserved". The weight of bombs which actually fell on German oil targets between May 15th and June 24th must thus have been very small: moreover, whatever it was, it was distributed among 29 different targets. The pilots' reports certainly contain accounts of fires or explosions at 16 of these targets, but photographic evidence does not appear to exist by which these claims can be assessed. Furthermore, the validity of the oil plan naturally rested on the Ministry of Economic Warfare's estimates of German needs and capacity: and these, it is now well known, at the time underestimated the extent to which civilian requirements in oil could be cut in war. In sum, then, the attacks on German oil during the six weeks of the French campaign probably failed to inflict any very considerable direct damage, while such damage as was inflicted could not have effected the general oil position of the enemy to the degree anticipated in our plans.

(f) The controversy on the use of the 'heavies'

A final word must be said here on the subject of the controversy on the use of the heavy bombers. The preceding narrative will have made it plain that to some extent the controversy was, in reality, much more academic than it seemed at the time. For it is clear that even if the "heavies" had operated solely against targets near the battle front all the time, they could not have held up the enemy advance: while equally, if they had never deviated from the refineries and synthetic plants of Germany, they would still have left the greater part of the enemy oil resources unimpaired. In the result, about twice as many "heavy" sorties were devoted to attacking communications between the battle front and the Rhine as were sent against oil and marshalling yards east of the

■ For a full discussion of the oil project see A.H.B. narrative on the strategic bombing offensive.

Rhine. * Arguments on both sides of the case were, indeed, very cogent - on the one hand, the feeling that to strike at German oil was to pursue a long-term plan in the midst of a short-term military crisis: on the other, the conviction that German oil objectives could be more effectively located and attacked by night than could some Belgian or French cross-roads, and the hope (false as it proved) that the enemy might hold back fighters from the western front, and divert his long range bombers to British objectives. Whatever view is taken, however, of the final merits of each case, it is difficult to escape the impression that too many cross-currents were affecting our bombing policy for the heavies, with the result that their operations suffered in coherence and consistency.

(g) Achievements of the fighters

The main duties of the fighters throughout the campaign were the protection of our own and allied troops, the defence of bases and vital points, and the provision of cover for reconnaissance and bombing aircraft. In numbers, our Hurricanes were of course far too few to fulfill these requirements completely, though their efforts to do so were beyond all praise. The three A.A.S.F. squadrons defended the A.A.S.F. aerodromes very successfully (with the single exception of the early morning attack at Condé-Vraux on May 11th^{**}); they provided useful protection for both French and British troops: and with the help of two further squadrons sent out from home on June 8th, they did excellent work in covering the final evacuation, when the one disaster was the loss of the 'Lancastria'. The record of their air combats is most impressive, and particularly in the opening days of the German attack, until even the most experienced pilots became tired out by exertions beyond human endurance. Altogether, according to A.A.S.F. statistics,² 317 Hurricanes encountered between May 10th and June 17th 889 enemy aircraft, and 34 Hurricanes were lost in combat for a claimed total of 131 "confirmed" enemy victims. This means that about 11% of the Advanced Air Striking Force Hurricanes actually engaged were lost, and that in return, against average odds of nearly three to one, they claimed to have destroyed about four times as many of the enemy, or some 14% of all enemy aircraft encountered. Such a result, of course, could only be regarded as magnificent.

The R.A.F. Component Hurricanes, charged with similar duties to those of the A.A.S.F.

* The distribution of "heavy" sorties over the whole period May 10th-June 21st was:

(about 995 sorties against objectives east of the Rhine (mainly oil and marshalling yards)

" 53 " " Italian industrial objectives
" 1802 " " communications etc. west of the Rhine.

fighters, fought equally well, though less has been written about them, and their records permit of few reliable statistics. Between May 10th and May 20th some 200 enemy aircraft were claimed as definitely destroyed, for the loss of about 75 Hurricanes in actual combat. The primary duty of the Component fighters was of course to the B.E.F. and the B.E.F. area, though they also operated many times in other areas. The degree of success they achieved in protecting the B.E.F. and the B.E.F. area is a matter of some dispute. The enemy certainly managed to bomb the R.A.F. Component aerodromes with some frequency, but not, apparently, very disastrously, except on one occasion. Nor does it appear that the B.E.F. forward troops were, in general, severely bombed during the period when the Component fighters were in France. But the Luftwaffe was able to deliver telling attacks against the railway system and the centres of communication behind the lines. The degree of fighter protection accorded to our troops evacuating from Dunkirk is discussed below.

In connection with the protection of the Allied ground forces, it is plain that the R.A.F. of 1940 has been the subject of a most unfair volume of criticism. The impression has gained currency, by a journalistic over-simplification (not at times unaided by the military), that the Allied ground forces were routed by the German dive-bombers, against whom the Allied air forces failed to provide any effective protection. It is undeniable, of course, that the dive-bombers on occasion helped to achieve decisive results, as when they assisted the passage of the Meuse below Dinant, or as when they blasted the Belgian Infantry in the three or four days before King Leopold's capitulation. But the implication that their activities were the sole, or even the main, cause of the Allied defeat is far from admissible. Leaving aside the fact that the Germans employed about six times as many long-range bomber and bomber reconnaissance aircraft as they did dive-bombers, and that these long-range bombers achieved important results against French communications behind the battle fronts, so many other factors were involved, that it would be quite wrong to attribute too much to the dive-bombers. There was the general novelty of German tactics: the smaller number of divisions on the Allied side: the pronounced Allied inferiority in armour:

/the ...

* The attack on Vitry at 1500 hrs, May 18th: Page 269.

** Pages 470 - 473

the lack of land-mines or anti-tank guns to provide defence against the panzer thrusts; and, very important, the utter insufficiency of anti-aircraft guns - for an adequate supply of these alone would have done much to check dive-bombing. It is thus far nearer the truth to emphasise the general superiority in 1940 of the German military machine, than to select one detail of their offensive power and to make that responsible for all else that followed.

In regard to the implication that more could have been done by the Allied air forces to counteract dive-bombing, the following conclusions may be drawn from a study of the Air Historical Branch records:- that no conclusion is possible about the French fighters, and that the British fighters in France could not possibly have done more. The record of the French fighters is simply not available; that of the British fighters is contained in the foregoing narrative, from which it may be seen that those based in France were used to the utmost, and that Air Marshal Barratt was in general faced with the problem of making a few squadrons do the work of a multitude. The only considerations that remain are thus whether more fighter squadrons should have been sent to France at any time, and whether Fighter Command could have done more from home bases. The difficulties in the way of both these projects have been discussed throughout this narrative; and a final consideration of the former subject follows below.*

One duty our fighters must be regarded as having performed, at first, insufficiently well - not from any fault of their own, but from the general system adopted. Fighter protection for bombing operations was not, during the early phases of the campaign, well managed. The experience of the last war had imbued the Air Staff with the idea that close fighter escort was an uneconomical method of protecting bombers. The correct principle, it was thought, was to "fight the enemy out of the sky", to drive back the enemy fighters from the "line of air" up to which we wished to operate, and to take advantage of his ensuing absence to operate our bombers cheaply in the space we had purged. This theory was reinforced by the very cogent fact that we had few fighters in France, and much for them to do; and to tie them down to close escort work would have virtually prohibited the execution of their other duties. It was accordingly arranged that fighter patrols should be flown at irregular intervals to "maintain air superiority", and enable our bombers and reconnaissance aircraft to operate; while on other occasions, special cover was concentrated over a particular area where a bombing operation was due to take place.

There can be no doubt that this system was ineffective. The enemy fighters, in superior numbers, very naturally refused to be "fought out of the sky". Instead they appeared in great strength over the main lines of the German advance, and interfered drastically with our reconnaissance and bombing operations. On May 21st and 22nd, for instance, no reconnaissance sortie returned from the B.E.F. - Belgian front, and it

/was ..

IIH2/573
(Operations
Record of
R.A.F.
Component)
page 3.

was not until a Blenheim was provided with a close escort of Hurricanes on May 23rd, that the necessary information in this area was obtained. Equally, our fighters concentrated over a particular area to protect a bombing operation usually found themselves fighting for their lives rather than clearing the air for the Battles and Blenheims. The death-blow to this system came on May 17th, when eleven out of twelve Blenheims were shot down before they could reach the area where fighter cover was to be provided.¹ After this the policy was adopted of operating by night or, ~~by~~ by day, then as a rule under close escort or cloud cover. The provision of close escort to the Blenheims operating from England after May 20th was undoubtedly one of the factors responsible for the improved percentage of day bombers returning from operations.²

To provide escorts to Blenheims operating from this country against targets in the Pas de Calais or the Dunkirk area, though a severe strain on the resources of Fighter Command, was, of course, a practical proposition. To provide regular close escort in any strength for the A.A.S.F. Battles, operating from their French bases, was, with the given number of fighter squadrons in France, an impossibility. This raises once more the question mentioned above, to which frequent reference has been made in the course of the narrative - whether more fighters should have been sent to France.

(h) The "fighter reinforcement" controversy

The matter of fighter reinforcement was, it must be remembered, one for decision on the Cabinet level: and it follows that the odium, or credit, for what degree of reinforcement was sent to France must not be attached solely to the Air Staff. The question may best be approached from two angles. It may first be asked whether, in the given situation of the German break-through, all available reinforcement should have been thrown into the battle in a desperate attempt to avert defeat. The answer to this is a clear negative. The greatest exertions were in fact made, as is evidenced by a recapitulation of the reinforcement sent. In accordance with prearranged plans the six Hurricane squadrons in France were immediately reinforced, on the launching of the German attack, by four more squadrons.⁴ Next, on May 13th, the equivalent of two more squadrons was sent, in the form of 32 pilots and aircraft. Then, on May 17th, eight flights, or the equivalent of four more squadrons, followed. This brought our total fighter force in France to the equivalent of sixteen squadrons, though the French had never been led to expect more than ten. After this, on May 20th and 21st, the R.A.F. Component fighters, or such of them as remained, were evacuated, and only the three squadrons with the A.A.S.F. remained. Two more joined these on June 8th, and a total

/of ...

-
1. Page 255
 2. Pages 259, 279, 288
 3. Notably pages 19-20, 51-62, 193, 209, 214-215, 236-237, 245-246, 364-368, 385-389.
 4. Three squadrons on May 10th and one on May 12th.

of five British fighter squadrons was thus based in France for work during the final German offensive and the evacuation. In addition to these forces, others of course operated from England, chiefly assisting the retirement and evacuation of the Northern armies, and then the resistance on the Somme and Seine.

There can be little doubt that any considerable number of squadrons beyond these forces could not have been operated effectively in France. an effective administrative and maintenance organisation would not have been there to handle them. With the retreat, the number of bases became increasingly inadequate: and though a large number of extra fighters would doubtless have done a few days' good work in shooting down German bombers, very few might have survived to return to this country - not from losses in combat, but from abandonment of damaged but repairable aircraft in face of the enemy advance.

To these considerations of administrative difficulty, must be added the equally vital consideration, of what could be spared from home defence. By May 18th the equivalent of sixteen squadrons was in France: but within two days the question became not whether more should be sent to join these, but whether the fighters in the North - all but three of the squadrons - could be plucked in time from the German path. These R.A.F. Component Hurricanes returned shattered in strength. Immediately intensive operations from England then began, and by the time the Dunkirk evacuation was complete every day fighter squadron except three had been exposed to the losses of continental fighting. The defences of the country were thus seriously impaired, but the French naturally pressed for a return of our fighters in strength, to aid them in the forthcoming struggle along the Somme - Aisne line. To have acceded to their request for ten or twenty squadrons would have been to reduce the fighter defences of this country far below the safety margin.² At a time when the enemy was in possession of the Low Countries and Northern France, and when night activity by the enemy over this country had already begun,³ no British government mindful of its primary duty could have accepted this risk. A halt was called, save for the two squadrons despatched on June 8th, though others continued to operate from British bases while the battle was within reach, or while refuelling and rearming was possible in France.

This suspension of the broad flow of fighters to France naturally appeared to Air Chief Marshal Dowding as the belated but welcome recognition of his unceasing arguments against the weakening of Fighter Command. In fact it may rather be regarded as an inevitable decision, approved alike by the Joint Planning Committee, the Chiefs of Staff, and the Cabinet, dictated by the breathless rapidity of the German advance and the extreme unlikelihood of the French making an effective stand anywhere. Militarily, after May 18th there was no case for stripping England of fighters to pour them into France, though there was a political temptation to encourage the French by this means to remain faithful to the alliance. Fortunately

/the ...

1. of. the fact that 203 R.A.F. Component fighters failed to return to this country, though only about 75 were lost in combat. Most of the remainder were damaged and abandoned.
2. See A.H.B. Narrative on the Air Defence of Great Britain.
3. See page 385.

the temptation to adopt an unsound military measure in the interests of a political situation was firmly resisted, and in the result Fighter Command was just enabled to rebuild its strength in time to win the Battle of Britain.

It is, of course, arguable that, even if the administrative impossibility of receiving and operating many more fighter squadrons during the battle be admitted, plans should have been made beforehand to cater for a rapid switch of fighters from English to French bases. An attempt had, in fact been made to secure this strategic flexibility, by means of the Fighter Wing Servicing Units. Plans to extend the number of these were, however, not only halted by the advent of the German attack, but would in any case have been severely limited by the inadvisability of locking up too many valuable personnel in units which might not be actively employed. The real answer to the demand for strategic flexibility, as to many other demands, was doubtless an organisation for constructing fighter landing-strips in a few hours, coupled with the provision of a massive fleet of transport aircraft. Neither of these desirable things did we possess. The lack of transport aircraft, at least, is not difficult to understand in view of the aircraft production position before the war, and Germany's long lead in bombers.

When all allowances are made, however, and the decision not to send further large reinforcements to France is recognised as the only sensible course in the circumstances, a qualification must remain. The ten Battle and Blenheim squadrons of the A.A.S.F. had been intended to operate without fighter help, save in so far as this could be provided by two, or at most three, Hurricane squadrons attached to the A.A.S.F. - squadrons which would also have a secondary duty in defence of the A.A.S.F. area. But ten bomber squadrons (of which eight were the highly vulnerable Battles) assisted by only two or three fighter squadrons was clearly not a balanced force. The result appeared in the slaughter of the bombers during the first five days of the campaign. Later on, when the A.A.S.F. bomber squadrons were reduced to six, when the A.A.S.F. fighter squadrons were increased to five, and when bombing operations were undertaken by night as well as by day, more of a balance was obtained. It is arguable, then, that a provision of fighters with the A.A.S.F. adequate to the size of the striking force should at least have been made from the start, even if this had involved the release of four or five more squadrons from the defence of Great Britain. In so far as such a release would be well catered for in advance, the chances would be improved of the squadrons returning reasonably intact if a crisis arose on this side of the Channel.

(i) Achievement of the reconnaissance aircraft.

Reconnaissance during the campaign proved to be in part a success, in part a failure. The deficiencies of the strategical reconnaissance carried out by the Blenheims before the German attack have been already noted, and in particular the heavy cost in aircraft and the camera failures due to cold. Of the reconnaissance operations during the

/German...

1. Pages 143-147; see also A.H.B. narrative on Photographic Reconnaissance.

German attack it may in general be said that the Lysanders did some useful work, but proved far too vulnerable; and that the Blenheims, safer but not safe enough, returned with a great deal of important information, even if much of it was negative. In the Spitfires of No. 212 Squadron clearly lay the development of the future, but though these carried out some most valuable sorties, they were of course too few in number to secure all the information needed.

(j) The outstanding achievement: Dunkirk.

The period in which the R.A.F. exerted the most influence over the future of the campaign was clearly during the retirement on Dunkirk, and the subsequent evacuation. The work of the R.A.F. in this connection has not been without its detractors. The danger of uninstructed criticism of the R.A.F., or of its supposed absence, by soldiers returned from France was in fact considered so great that General Dill addressed a special message to returned units, emphasising that the R.A.F. had in fact gone "all out" to supply cover.

1.6.40
Document
No. 40

V.A., Dover:
Report on
"Operation
Dynamo"
(in Admiralty
Historical
Section).

Nor was criticism by the Navy likely to be less frequent, when the official report by Vice-Admiral, Dover, in charge of 'Operation Dynamo', could contain strong references to the inadequacy of our air support. After complaining that there was no direct contact between R.A.F. operational units and naval commanders, and that delays and lags therefore resulted in R.A.F. action often being brought to bear either in the wrong place or at the wrong time, or with inadequate force to meet the current situation, the Admiral's report proceeds: "Not only did unopposed German air effort interrupt and reduce seaborne traffic, but it also prevented embarkation by suspending troop movement. To both Naval and Military observers on the coast, the situation at times was extremely disheartening. Rightly or wrongly, full air protection was expected, but instead, for hours on end the ships off-shore were subjected to a murderous hail of bombs and machine-gun bullets. Required by their duty to remain off-shore waiting for the troops, who themselves were unable to move down to the water for the same reason, it required the greatest determination and sense of duty, amounting in fact to heroism, on the part of the ships and boats' crews, to enable them to complete their mission. In their reports, the C.Os of many ships, while giving credit to the R.A.F. personnel for gallantry in such combats as were observed from the ships, at the same time express their sense of disappointment and surprise at the seemingly puny efforts made to provide air protection during the height of this operation.... As one C.O. remarks, the formations of our own fighters when operating over the area were so outnumbered by enemy aircraft that it was no surprise to the observer to note that more British machines were shot down than were enemy, and feelings of disgust were engendered on listening in to the B.B.C. report of the same evening, which recounted the opposite story. The more so as the gallantry of our outnumbered airmen was so obvious at the time, and was the admiration of all."

/This ...

No. 11 Group
Report:
"Operations
over France:
May - June
1940"

This sort of impression of R.A.F. activity during the Dunkirk evacuation obviously accords ill with certain not less informed views. The Prime Minister, for instance, took pains to point out that "there was a victory inside this deliverance which should be noted. It was gained by the Royal Air Force." The A.O.C., No. 11 Group (who may, of course, not be regarded as an impartial witness) reported that during the operation "a total of 603 enemy aircraft were shot down, of which 402 were confirmed as destroyed, for a net loss of about 120 fighter pilots. The ratio of five to one of enemy losses is considered highly satisfactory in the difficult circumstances Unless they were in superior numbers, the German fighters did not engage in combat, and they further required the tactical advantage of height or cloud cover. Our fighter pilots obtained such an ascendancy over the German bombers that during the last phase of the operation, the German bombers jettisoned their bombs in the sea on sighting even small formations of our fighters. On one occasion, a fighter pilot who had used up all his ammunition, made a feint attack at a sub-formation of German bombers, who immediately fled east, one of them losing control and crashing in the sea."

It is difficult to reconcile these divergent views. It is undeniable, for instance, that on May 27th Dunkirk was severely and repeatedly bombed, and that evacuation arrangements were badly affected. At the close of May 28th, however, S.N.O. Dunkirk was able to signal V.A. Dover - "fighter protection has been invaluable, and ... bombing only sporadic". On May 29th, when fewer but stronger patrols were flown, the enemy endeavoured to make five major attacks: twice he got through in the absence of our patrols, and three times was intercepted - once before, once during, and once after the main attack. At the close of that day V.A. Dover signalled Fighter Command expressing his gratitude for 'splendid co-operation', which 'alone has given us a chance of success'. On May 30th the cloudy weather was much in our favour, and bombing interfered little with the evacuation, while the following day all four major attacks were engaged by our patrols, and only one vessel was sunk by direct enemy air action. June 1st, however, was again a critical day, and a great deal of damage was inflicted on our ships, mostly in the unavoidable intervals between our patrols. On June 2nd our fighters intercepted successfully on all three occasions when enemy formations were reported, while on June 3rd and 4th bad visibility reduced enemy air activity to a minimum. The general picture is thus of considerable German success on two days - May 27th and June 1st - but of other days in which the enemy was in the main decisively impeded either by our patrols or by the bad visibility.

To state that the Germans met with outstanding success on two days only, is not, of course, to deny that a great deal of air activity against our shipping or our troops took place on other days, or to seek to minimise the ordeal or the heroism of those who so gallantly withstood the worst that the Luftwaffe could do. But it seems incontrovertible that on many occasions the R.A.F. patrols,

/by

by both Fighter and Coastal Command aircraft, intervened successfully and prevented far more serious damage than was in fact inflicted. Moreover, when the worse two days are considered, it is pertinent to remember that on May 27th the effect of enemy air action was overestimated, for the port was not blocked as was reported at the time: while on June 1st the decision to suspend evacuation thenceforward during the daylight hours was necessitated as much by enemy shelling of the approach channel as by air attack. Judged by the acid test of results, the evacuation, for all the disorganisation which marked its early stages and for all the efforts of the enemy to thwart it by land, sea and air, was a triumphant success: and when all due credit is given to those who so devotedly and magnificently brought off the troops to safety, it must be allowed that the R.A.F. materially helped to make this possible.

But the controversy over the degree of protection supplied by Fighter Command at Dunkirk must not be allowed to obscure the real character of the R.A.F. operations during the evacuation. Of these, fighter protection was only one part. Throughout the period the Blenheims of No.2 Group bombed by day the German columns, or their communications, on the approaches to Dunkirk, while by night the 'heavies' also concentrated on communications near the battle front. Equally, valuable attacks were made on German batteries shelling our troops or the seaward approaches to Dunkirk - attacks in which Bomber Command, R.A.F. Component and Fleet Air Arm aircraft (under Coastal Command) alike participated. On this latter subject Vice-Admiral Ramsay's report may be quoted in a sense more favourable to the R.A.F. "The position of enemy batteries had been located by air reconnaissance by nightfall on May 31st, and additional batteries in the Gravelines area on 1st June. Air bombardment of these batteries during 1st and 2nd June undoubtedly reduced their fire during dusk and dawn on each of the nights 2/3 and 3/4 June, when sea-borne traffic was passing within range of the enemy batteries commanding the south end of X Route, the Dunkirk roads, and Dunkirk harbour. This was a valuable contribution by the R.A.F. to the successful outcome of the operation. A similar beneficial result was obtained by the bombing of the batteries which had Dunkirk Pier and roadstead under fire."

Nor did R.A.F. participation end here. While the land advance and the battery fire of the Germans was impeded by bombing, and while Fighter Command strove to give protection in the Dunkirk area, Coastal Command patrols operated to prevent air attack on shipping using the central route, to reconnoitre for E-bpat and U-boat activity which might threaten our vessels, and to search for survivors in distress. 'Dunkirk' may thus best be regarded, from the R.A.F. point of view, as a closely integrated series of air operations - bomber, fighter and reconnaissance - and it would be wrong to emphasise the fighter side alone. Though the organisation for integration, in the form of the 'Back Component' Headquarters at Hawkinge and the liaison with V.A. Dover, was by no means perfectly framed, and though many improvements would doubtless have been possible with more experience of what was virtually a 'combined op.' in reverse, the R.A.F. did undoubtedly succeed in contributing substantially to the success of 'Dynamo'. That this was so, was due in no small measure to the concentration in space which applied during the Dunkirk period, as contrasted with

/the ..

Until the success of the evacuation was assured. One June 1/2nd oil targets were again attacked, and on June 3/4th the major effort reverted to oil.

the preceding fortnight when air action was diluted - perhaps inevitably - over an enormous area.

Report by
Rear-Admiral
Walker on
Operation
Dynamo
(in Admiralty
Historical
Section).

A final word may perhaps here be added on the 'absence' of the R.A.F., so commented on by many soldiers and sailors. It has often been pointed out that air action for the benefit of the ground forces does not necessarily occur - and certainly did not always at Dunkirk - within sight of the troops. What is realised often enough in the R.A.F., but is less often recorded on paper, is that a broad tendency exists, or existed, in the other two services, not only to believe solely in what air action they actually witness, but also to expect nothing less than one hundred per cent immunity from enemy air attack.¹ To this limitation of appreciation of air matters must be added the fact that both soldiers and sailors at this date were normally incapable of distinguishing British from enemy aircraft. This, indeed, need not surprise us when we find, on occasion, Spitfires attacking Hurricanes, but some of the instances of this failure of recognition are very revealing. Thus Rear-Admiral Wake-Walker, S.N.O. Afloat off Dunkirk records how, on June 1st, "as the mists and clouds dispersed many aircraft appeared on the scene and fighters constantly came low over us. More often than not they were Spitfires, but our ships were not taking chances and nearly always opened fire indiscriminately on them. As this kept happening, I hoisted 6 flag, - "cease fire" - and blew the siren to draw attention and try and stop the firing. In spite of this I can remember our own machine gun often in 'KEITH' firing away regardless of the 'cease fire' gong - once started firing they could hear nothing".

Nor was this the only such instance on this day to be picturesquely recorded by the S.N.O. Afloat. "Back on the pier again I waited for Tennant² who presently walked down. His tin hat had been decorated with the letters S.N.O. cut out of silver paper and stuck on with sardine oil - it looked very distinguished all the same. As we stood talking there a Lysander Army Co-op plane came over very low and flew down the pier. It was fired at by several Bofors guns and Tennant said: 'I'm sure that damned fellow is a Hun - he has been flying over here all day'. I then realised it was the plane flying over at my request to see if the pier was being shelled, and felt rather sorry for the poor chap, though he seemed none the worse." This type of incident could, in fact, be multiplied by the score, and one is left with a general impression that a more or less automatic assumption of hostility was usually made by both ships and ground forces in the case of all aircraft. Judged by this token, the more frequently the R.A.F. operated near Dunkirk, the more the Luftwaffe would appear to monopolise the skies.

/II. THE EFFECT

1. During the Sicilian campaign, for instance, the narrator encountered a Lt-Colonel who was apparently quite oblivious to the fact that the whole enterprise had only been made possible by the attainment of Anglo-American air superiority. His opinion of the R.A.F. in Sicily was entirely governed by the fact that he had once been bombed by the Luftwaffe.
2. S.N.O. Dunkirk.

II. THE EFFECT OF THE CAMPAIGN ON THE R.A.F.

Something thus far has been said of the effect of the R.A.F. on the campaign. It remains to consider a little the effects of the campaign on the R.A.F.

(a) Losses in aircraft

The loss in aircraft from all causes amounted to nearly a thousand² in the period May 10th - June 20th, or per cent of the first line strength of the R.A.F. in England and France as it stood at the outbreak of the German attack. Particularly interesting in this connection was the virtual elimination of No.1 Group for some time as an effective force, for though the Group was reformed in England at the close of the campaign and began to operate towards the end of July, its squadrons for some months were few in number and ill equipped for the tasks they were now called upon to do. Equally striking was the loss, from all causes, of 386 Hurricanes and 67 Spitfires. The service could ill afford to lose over 450 of these types. Fortunately, by a great effort, these fighter losses were made good in time for the Battle of Britain, but the figures illustrate again how essential it was to call a halt in our fighter expenditure over the continent.

(b) Losses in other equipment.

So far as equipment other than aircraft was concerned, no record exists by which the losses entailed by the evacuation can be estimated. Many valuable items were got away successfully, including machine-tools and twenty tons of vital "columns 7 and 9" equipment from No.21 Aircraft Depot. But much of the R.A.F. Component equipment was lost by German interception and there was no time or space to load a great deal of A.A.S.F. equipment which actually reached the Western ports at the end of the campaign. In the result, the A.O.C. Maintenance Command estimated that we lost in France (exclusive of aircraft and equipment ahead of Air Stores Parks in squadrons and smaller units), the equivalent of four complete Air Stores Parks, or items to the value of about £1,000,000. Fortunately, as indicated above, priority was given to articles in short supply in England, such as "columns 7 and 9 equipment" and small arms ammunition, and the adverse effect on the service was thus much less severe than it might easily have been.

/ (c) ...

1. Full details of the effect of the campaign on Bomber, Fighter, and Coastal Commands will be found in the A.H.B. narratives covering Metropolitan Bombing Operations, A.D.G.B., and Naval Co-operation.
2. Counting Categories 2 and 3 for those based in France, in view of the impossibility of carrying out extensive repairs, and Category 3 only in England. In detail, the losses from all causes were:-

<u>A.A.S.F.</u>	- 137 Battles,	37 Blenheims	= 229
	55 Hurricanes		
<u>R.A.F. Component</u>	- 41 Blenheims,	35 Lysanders	= 279
	203 Hurricanes		
<u>Bomber Command</u>	- 97 Blenheims,	26 Wellingtons	= 166
	26 Whitleys,	17 Hampdens	
<u>Fighter Command</u>	- 128 Hurricanes,	67 Spitfires	= 219
	13 Defiants,	11 Blenheims	
<u>Coastal Command</u>	- 20 Hudsons	14 Blenheims, 11 Ansons	= 66
	11 Swordfish,	6 Beauforts, 4 Skuas	

TOTAL 959

A few of the Fighter and Coastal losses may have occurred from sorties not strictly connected with the French campaign.

Enc.2b
attached to
Barratt's
Despatch
(D.M.C.
copy in
A.H.B.
records)

(c) Losses in personnel

During the campaign, excluding casualties due to accidents, 321 pilots 359 other aircrew and 277 ground personnel were killed, reported missing, or died of wounds or injuries. In addition 115 pilots and 120 other aircrew were known to be prisoners of war or interned. The wounded or injured were fortunately less numerous than these, and amounted to 98 pilots, 86 other aircrew, and 6 ground personnel. The 'ground' casualties were thus very light, but the loss to the service of 915 flying personnel dead, missing or prisoners, was severe, and more particularly when nearly half of these were pilots.

(d) Wider effects. Analysis of bombing losses to show influence on future bombing policy.

The effect on the service of the French campaign, if the wider results are glanced at, would become a study in itself, and cannot be dealt with here. It will be of value, however, before leaving the subject, to analyse in particular the bomber losses, for from them it is not difficult to see how the French campaign reinforced Air Staff opinion on some aspects of bombing operations, and revolutionised it on others.

During the first few days of the campaign the British bomber losses by day were, it will be remembered, appallingly high. From May 10th - 14th, inclusive, the Advanced Air Striking Force Battles, in carrying out some 130 sorties, lost between 60 and 70 aircraft*, or approximately 50%. In consequence of this suicidal rate, and of the retirement behind the Marne, they were then, with the exception of an operation on the night May 15/16th, unable to operate for four days (May 15th - 18th). On May 19th they carried out 33 sorties by day and lost either 5 or 6 aircraft - a loss of about 18%.

The losses of May 10th - 14th had necessitated a switch over by the A.A.S.F. to a policy of operating by night, with exceptions for very important objectives by day: and from May 20th - June 4th about 342 sorties were now carried out by night, and only about 57 by day. During this period the aircraft lost by night amounted to only 2 (= .6%) and those by day to 9 (= 16%). On June 5th, with the opening of the German offensive to the South, the Advanced Striking Force Battles again began to operate more intensively by day: for from that date until their evacuation (June 15th) they carried out about 264 sorties by day, and about 132 by night. Between these dates some 23 aircraft were lost by day (= 9%) and about 3 by night (= just over 2%). For purposes of comparison, the percentage losses may be tabulated:

/Day ...

* Figures in different sources add up to 62 and 68.

	<u>Day</u>	<u>Night</u>
May 10th-14th	50%	(Not operating)
May 15th-18th	(Not operating)	Nil (May 15/16th)
May 19th	18%	(Not operating)
May 20th-June 4th	16%	.6%
June 5th-15th	9%	2%

The points which emerge most clearly from a survey of the above figures are obviously the relative security of night operations, the very high mortality figure of the day operations at the beginning of the campaign, and the considerable reduction in losses by day when these operations were resumed on an intensive scale after June 5th.

Barratt:
Despatch
para. 79

It is of interest to establish why this reduction in the daylight losses of the Advanced Air Striking Force Battles occurred. Air Marshal Barratt adduces reasons to this effect - that the added experience gained by our crews was of value to them, but that above all, the Anti-Aircraft defence organisation of the enemy became weakened through losses and through the extension of his forces. These reasons are undoubtedly sound, but they require a little amplification. The "added experience" of the crews seems in reality to have involved a complete change in tactics: for whereas at the opening of the campaign the Battles went in with a very low approach, flying in formation, as in their peace-time training, this was abandoned after two or three days in favour of individual attacks from a considerably higher level.

Equally, the "weakening of the enemy Anti-Aircraft Defence" covers a number of points worth examination in greater detail. During the first five days of the campaign, and in particular on May 14th, when such heavy losses were incurred, the Advanced Air Striking Force Battles were attacking the very spear-head of the two main German armoured thrusts - that which approached Maastricht and that which effected the fatal break-through near Sedan. It was not strange that this enemy force was most strongly protected, not only by Anti-Aircraft guns, but also by fighter patrols. Moreover the selection of more or less inevitable targets like the Meuse bridges naturally implied running up against prepared concentrations of fire on the part of the enemy. Later on, however, after the Germans had burst through the French defences on the Meuse, they never achieved the same concentration of either Anti-Aircraft guns or fighters, simply because the speed and distance of their advance precluded it.

The Battles in the latest phase (June 5th - 15th) when their losses by day fell to 9%, were thus for the most part not attacking a German thrust comparable in power with that over the Meuse in the first phase. It is true that for a while the new German attack was felt mainly along the Somme, and that from June 5th - 8th the Battles attacked targets on or near the Somme: but when once the Germans had advanced in force across the Somme, the Battles were largely used by day to impede their progress to and across the Lower Seine (June 10th - 15th). This was, of course, an essential line to defend, for it was the last natural obstacle protecting the remnants of the British Expeditionary Force and the whole of the Advanced Air Striking Force. But to the Germans the

/Advance

advance over the Lower Seine was only one of several simultaneous attacks, and by no means the most important. For it will be remembered that the enemy also pressed strongly across the Oise North of Paris, across the Aisne near Soissons towards the Marne at Chateau Thierry, and across the Aisne near Reims to the Marne at Chalons (and thence south eastwards towards the Maginot Line). As the enemy became clear that his attacks nearer Paris were uniformly successful, he poured his greatest proportion of armour into the more easterly thrust, that which pressed towards Chalons-sur-Marne. And it was almost invariably observed during the campaign that where the German panzer divisions were found in greatest strength, there also was found the maximum density of his Anti-Aircraft fire and his fighter patrols. This main advance, however, was not attacked at all by the Advanced Air Striking Force during daylight hours. The advance across the Marne nearer Paris was attacked on only one day - June 13th* - when 38 sorties were put on a big concentration of armour reported in the Forêt de Gault, south of Montmirail. German fighters were met in large numbers, and seven of the Battles were lost - 18% of the attacking force. All this suggests that had the Battles during the last four or five days of the operations been principally attacking the main German armoured thrusts instead of the penetration across the Seine, their losses would have been much heavier. This is not, of course, to suggest that the Battles should have operated against other targets than they did, for there were many other factors to be considered, and six squadrons cannot do the work of two hundred. But it does illustrate Air Marshal Barratt's contention that losses were lighter because of the extension of the enemy; and it supplements that contention by pointing out that the thrust principally attacked by the Battles in the last five days was not that which represented the main concentration of German force.

The Blenheim squadrons of the Advanced Air Striking Force ceased to operate after May 17th owing to their losses in the air and the destruction of almost a complete squadron on the ground. They therefore cannot throw light on the subject of the decline in daylight losses later in the campaign. During the brief period when they were operative they made 25 sorties, and lost 12 aircraft during operational flights: this figure of 48% corresponds closely with the Battle losses of 50% during the same period, and for the same reason - that they were attacking the main German thrusts near Maastricht and Sedan.

The Blenheims of Bomber Command, however, operated by day over the whole period of the campaign, and it is therefore instructive to compare their experience with that of the Advanced Air Striking Battles. From May 10th - May 15th (omitting May 13th, on which they did not operate), the Blenheims of No.2 Group carried out 156 sorties, for a loss of about 28 aircraft - or 18%. On May 16th they did not operate, nor again on May 19th: on May 17th - 18th they carried out 48 sorties for a loss of about 14 aircraft - i.e., 29%. From May 20th - June 4th they carried out about 750 daylight

/Sorties

sorties, for a loss of about 22 aircraft, 3%. In the final period of the renewed German offensive across the Somme and Aisne, they carried out about 473 sorties, losing 34 aircraft, or 7%. In tabular form for purposes of comparison with daylight losses of the Advanced Air Striking Force Battles, this becomes:-

Date	Percentage loss over period of A.A.S.F. Battles in Day Operations	Percentage loss over period of B.C. Blenheims in Day Operations
May 10th-15th	50%	18%
May 17th-18th	(not operating)	29%
May 19th	18%	(not operating)
May 20th-June 4th	16%	3%
June 5th-15th	9%	7%
% loss over whole period May 10th-June 15th	Approx. 21%	Approx. 7%

The obvious questions raised by this tabular comparison are:- Why the Blenheim losses were in general lighter than those of the Battles: why the Blenheim losses reached their peak on May 17th-18th; and why they fell to their minimum, not at the end of the campaign, when the German forces were most extended, but in the period May 20th-June 4th, when the Blenheims were in fact carrying out their greatest effort.

That the Bomber Command Blenheim losses by day over the whole period were considerably smaller than those of the Advanced Air Striking Force Battles was scarcely surprising, for the Battle was a virtually obsolete aircraft of slow speed and weak defensive power. Beyond this, however, other factors certainly told - the extra strain to which air crews based in France were naturally subjected through hasty moves and enemy bombing: the fact that so many of the Battles came to grief in a single day (May 14th) when they attacked in force near Sedan; and the fact that fighter escort was on the whole more effectively provided for the Bomber Command aircraft than for those of the Advanced Air Striking Force - a point elaborated below. That the highest percentage loss by the Blenheims occurred in the period May 17th-18th and the lowest percentage loss in the period May 20th - June 4th, is not difficult to explain. The heavy loss of 29% in the earlier period is accounted for by a single operation on May 17th, when twelve Blenheims of No.82 Squadron set out to create a block at Gembloux, near which a big column of armoured fighting vehicles and troops was reported. Fighter protection had been arranged over the target, but was of no use to the Blenheims, for shortly before the latter reached the target area they ran into heavy anti-aircraft fire and a patrol of Me.109s - the sure sign of an important German column - and all but one of the attacking squadron were shot down. The lowest loss - 3% between May 20th and June 4th - is explained by two or three considerations. During this period the Blenheims were almost entirely attacking the German forces converging on the Pas de Calais and Dunkirk. Thus they were operating against targets less remote from /their....

their English bases than at any other period during the campaign; and this had a favourable effect not only in the shorter distances to be flown by the bombers, but also in the fact that effective escort could now be provided.

The differing degree of fighter support indeed accounts for much in these varying figures of losses. It has been explained that at the beginning of the campaign the plan was to provide, not close fighter escort, but, if necessary, a protective cover in the target area. Since the attacks made were largely east of and along the line of the Maas/Meuse, this cover had necessarily to be provided by the R.A.F. Component Fighter squadrons, by the Advanced Air Striking Force squadrons (3 in number at that date) or by the French. The R.A.F. Component records have largely perished: those of the French were apparently not communicated to us: and thus there is little detail of what fighter cover was in fact provided. But it is clear that whatever was provided was not sufficient to prevent losses at a figure which no air force could consistently sustain. As the battle moved into Northern France, however, and as it was seen that closer fighter escort both could and should be provided, the strength of the Fighter Command squadrons began to produce its effect, and from the point of view of the Blenheims more than offset the evacuation of the R.A.F. Component. From May 20th onwards it became the regular practice to provide close escort by Fighter Command aircraft to the Blenheims operating from England: and though during the period of the actual Dunkirk evacuation the Blenheims were not actually escorted from the English coast, their operations (all in the neighbourhood of Dunkirk) were timed to coincide with the provision of the strongest "cover" that Fighter Command had ever attempted to put up. From June 5th onwards, however, the battle began to move south across the Somme and Aisne: beyond Rouen aircraft of Fighter Command could not operate effectively: and after the South Component bases were abandoned, the Blenheims were forced to rely for protection on the five overworked Fighter Squadrons of the Advanced Air Striking Force. Thus it is not surprising that a slight rise in losses was again experienced.

In sum, then, the reasons for the marked decrease in daylight losses by both Battles and Blenheims may be thus listed:- the abandonment of very low-level delay-action bombing: the extension and consequent weakening of the enemy Anti-aircraft fire and fighter defences: the fact that in the later stages of the campaign our aircraft were not attacking the main German armoured thrusts: the shorter distance to be covered by the Bomber Command Blenheims in the period May 20th - June 4th: and the provision from about May 20th onwards of closer Fighter escort.

The losses of the Blenheims of No.2 Group, averaging 7% of all daylight sorties over the whole period, may be instructively compared with those suffered by the heavy bombers operating at night. The Wellingtons, Whitleys and Hampdens showed none of the fluctuations of the daylight losses. Taking

/approximately...

approximately the same periods as for the medium bombers, the following figures emerge:

Date	Night sorties by Wellingtons, Whitleys and Hampdens (excluding mine-laying in coastal waters).	Losses	Percentage loss
May 10th-15th	261	7 ^x or 4 ^{xx} - say 5	1.9%
May 16th-19th	289	5 ^x or 4 ^{xx} - say 5	1.7%
May 20th-June 4th	1190	25 ^x or 29 ^{xx} - say 27	2.2%
June 5th-15th	865	12 ^x or 17 ^{xx} - say 15	1.7%
x Figure from Squadron records xx Figure from C.S.U. - see reports, June 18th, Doc.			

Thus the heavy bombers show a steady loss of approximately 2% of sorties, and the great security of night operations at this date is again clearly apparent.

From this point of view, it may be argued that the most important effect of the campaign on the service lay less in the damage it inflicted on our air resources than in the very clear "lessons" which it presented for future study. The damage, thanks to the guidance of the Air Staff and to adjustments rapidly made by the B.A.F.F. Command in the light of circumstances, was kept within reasonable limits: and the lessons were well and truly digested. The economy of bombing by night in the conditions of 1940 was strikingly confirmed. A revised opinion spread in the matter of close fighter escort for daylight operations. A new and powerful impetus was given to the question of army support, resulting in the formation of Army Co-operation Command before the end of the year. The striking lack of a modern light bomber replacement for the Battle (never henceforth to be called on in a daylight tactical role) was remedied in the form of the Mosquito.¹ Air reconnaissance was to be radically developed as a result of the outstanding success of the P.D.U. Spitfires, while even in general reconnaissance it may be claimed that the formation of the Reconnaissance Corps resulted from the brilliant work of No. 3 Air Mission. And above all perhaps, the campaign emphasised the vital necessity of the greatest possible degree of mobility to an air force in the field - a lesson to be

/increasingly

increasingly applied, and with increasing success, in the Libyan campaigns.¹

In sum, then, the R.A.F. in May and June, 1940, was confronted with an impossible task. The abiding heroism of our crews, battling successfully against far greater numbers of enemy aircraft, or reconnoitring and pressing home attacks in the face of murderous fire from the ground, could exert little influence on the campaign as a whole - a fact for which the explanation must be sought in the qualitative superiority of the German to the French army. Nevertheless, the R.A.F. took a good toll of enemy aircraft, contributed notably to the salvation of the B.E.F., and learned much in the hard school of experience. But this perhaps was the prime achievement of those who directed our effort in the campaign - that though nothing within the bounds of sense was withheld from the struggle, the R.A.F. emerged from it still strong enough to win the Battle of Britain and, alone, to carry war to the heart of Germany.

1. The "lessons of the campaign" are treated very fully in Air Marshal Barratt's despatch. A special enquiry was also held at the close of the campaign, evidence from about forty witnesses on various major and minor points being given before a small committee under the Chairmanship of Air Chief Marshal Sir Robert Brooke-Popham. The Brooke-Popham report, with comments on it by the A.O.Cs-in-C. of Bomber, Fighter, and Coastal Commands, and by Air Marshal Barratt and others, may be found in file S.4982.