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COASTAL COMMAND REVIEW

April 1945

Vol. IV, No. 4

**HEADQUARTERS,
COASTAL COMMAND
ROYAL AIR FORCE**

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*The Air Officer Commanding-in-Chief,
Coastal Command.*

COASTAL COMMAND REVIEW

Vol. IV, No. 4—April 1945

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The Month's Work—April, 1945

The Anti-U-Boat Effort

Inshore tactics were continued by the enemy during April. Consequently we have altered our counter-effort very little. With 51 sightings (33 "A" and 18 "B") and 37 U-Boats attacked (25 "A" and 12 "B"), the sighting and attack score is almost identical with last month. In addition there were five sono buoy contacts attacked and two M.A.D. contacts.

2. As a result of two sorties into the Kattegat by the Banff Wing Mosquitos armed with R.P., the U-Boats in that area had a surprisingly unpleasant time. The first attack was on April 9, when three surfaced U-Boats were sighted. Two U-Boats were sunk outright and a third was left in a probably sinking condition. One of the former blew up before sinking and unfortunately caused an aircraft of the R.A.F. Film Unit, which was engaged in obtaining a cine-camera recording, to turn upside down and spin into the sea. Three other aircraft were damaged by the same explosion, but they succeeded in landing safely in Sweden. The second Mosquito attack was on April 19, when a further three surfaced U-Boats were intercepted. An attack was made immediately and one U-Boat was definitely sunk, while damage was probably inflicted on the other two. Photographs establish that one of these U-Boats was a Type XXI and another a Type XXIII. In addition, No. 206 Squadron had two promising attacks, using L.A.B., in the same area.

3. The attacks on sono buoy contacts gave far more promising results this month, particularly those by U/224, K/86, P/224 and U/86. After months of intensive training this is very satisfactory. Three extremely promising attacks were made by J/206, K/103 (U.S.N.) and R/63 (U.S.N.). The last was by retro-bombs on an M.A.D. contact.

4. The claims for April show a great improvement over the previous months of 1945. The final claims amount to three U-Boats sunk, four probably sunk and six promising attacks. The total month's picture was decidedly depressing for the enemy. Although they succeeded in torpedoing 25 ships, it is estimated on provisional assessments that they lost a total of 27 U-Boats in coastal waters and in the Atlantic, besides others destroyed or damaged by bombing raids in harbours and dockyards.

5. Sightings and attacks by American task forces in mid-Atlantic, and sightings by Azores aircraft, indicate that many more 740-tonners have been making the passage towards the Canadian and American seaboard. At least two of these U-Boats are claimed as sunk by the Task Groups.

6. The events at the close of April and early days of May on land point to an early general surrender of the German Land forces. It is thus impossible for the U-Boat war to be prosecuted from Germany. Whether it will continue for long from Norwegian bases is very doubtful. Already in the first few days of May there has been a general exodus of large numbers of U-Boats of all types bound obviously for Norway. Full advantage of these welcome surface targets has been taken by the Banff, Dallachy and North Coates Wings, together with 18 Group Liberator Squadrons, and many attacks have been delivered, by night and by day, in the enclosed waters to the east of Denmark. These are too recent to give considered assessments, but at least nine U-Boats have been sunk or possibly sunk.

7. Provision has already been made for dealing with U-Boats wishing to surrender before an official end to hostilities, but until a general "cease hostilities" gets to the U-Boats at sea, it will be necessary for Coastal Command to continue the offensive and to escort convoys. Even after such a signal is made, precautionary patrols and escort will be needed, not only to shepherd the surrendering U-Boats into harbour, but because the nature of the beast we have been fighting makes it likely that some U-Boats will attempt a fanatical mad dog finish.

Anti-Shipping

8. Following up their successes in March the Strike Wings have put in another month of very effective work. 1623 anti-shipping sorties were flown and 51 merchant ships were sunk or damaged.

9. Off the Dutch and North German coasts 16 Group continued their patrols against E-Boats and submersibles in defence of the Antwerp convoy route. No less than 647 sorties were directed against the enemy's small battle units in this area, resulting in 42 attacks against midget U-Boats in which 13 were claimed as sunk. On two occasions aircraft engaged on these patrols attacked and damaged merchant shipping which was making the coastwise passage under cover of darkness.

10. Continuing their E-Boat shadowing operations, the Wellingtons co-operating with our Light Coastal Forces brought about several interceptions. The operational procedure has proved so reliable that our aircraft were themselves able to make bombing attacks on the targets although our own Naval forces were still in the area. This important tactical development means that the line of demarcation between free and restricted bombing areas can be moved almost minute by minute and demonstrates how closely air and sea forces can co-operate.

11. In the north the Dallachy Wing under 18 Group made seven wing attacks against targets lying up in various Fjords. On every occasion the targets were found to be tucked into the narrow waterways under the lee of high cliffs, and the photographs of the attacks show clearly the tremendous difficulty of attacking shipping so disposed.



On April 9, 1945, Mosquitos of the Banff Strike Wing attacked a convoy of three U-Boats comprising one 1,200-ton U-Boat, one 740-ton quick-diving type and one 500-ton U-Boat (see Letterpress page 9). The top photograph shows a cannon attack on the 740-ton U-Boat by Z/143. The middle photograph shows probable wet R.P. hits by X/143 on the 740-ton U-Boat. In the bottom photograph accurate cannon fire from N/143 is seen striking the same U-Boat. His R.P. can be seen to have fallen off the port quarter.



On April 19, 1945, the Banff Strike Wing attacked a convoy of U-Boats escorted by an "M" class minesweeper. A quick-diving U-Boat of the 740-ton class was in company with a type XXI (250-ft. prefabricated) and a type XXIII (110 ft. prefabricated). In the top photograph fire from Mosquito T/235 can be seen straddling the 740-ton U-Boat of the quick-diving type just abaft the conning tower. Whilst the lower photograph shows Mosquito Q/143 making a cannon attack on the 250-ft. prefabricated U-Boat.



12. On April 7 twenty-one Beaufighters penetrated Vadheim Fjord to attack and sink the merchant vessel *Oldenburg* of 4,595 tons. A week later another brilliantly executed attack was made by 27 aircraft against shipping in Josing Fjord, when the depôt ship *Adolf Luderitz* of 3,615 tons and an "M" class minesweeper were claimed as damaged. Finally, on the 23rd of the month, 20 Beaufighters attacked shipping in Risnes Fjord and seriously damaged the merchant vessel *Ingerseks*, 4,969 tons. On every occasion the successful location of the target in its carefully chosen hiding place by the Outrider aircraft was largely responsible for the success of the subsequent attack. In particular the Outriders for the Strike on April 14 did a splendid job, but unfortunately both aircraft failed to return.

13. The Banff Wing Mosquitos made five attacks during the month. On the 2nd 39 aircraft attacked a concentration of shipping in Sandefjord. Two merchant vessels totalling 8,500 tons were sunk and a further 22,400 tons of merchant shipping was damaged for the loss of two aircraft. On the 11th the Banff Wing again struck at Porsgrunn, sinking three merchant vessels and a tug, and damaging a further three merchant vessels. The Wing was also used on anti-U-Boat patrols in the Kattegat and made two successful attacks against groups of U-Boats making passages to Norway on the surface. The details of these attacks will be found in the anti-U-Boat section.

14. On April 21 the Banff Wing made a further welcome contribution to the month's successes. Out in strength, the Wing was returning from an uneventful anti-shipping patrol in the Kattegat when, on the return journey, a force of 18 enemy aircraft comprising torpedo-carrying Ju.88s and He.111s was sighted approaching the Scottish coast. The Mosquitos attacked and destroyed nine of the enemy force before the remainder were able to gain cloud cover. Our aircraft received no damage during the combats. The next day Mosquito H/404 attacked a Bv.138 at moorings off Kristiansand South with cannon and machine gun fire. The enemy aircraft exploded.

15. The Halifaxes of Nos. 58 and 502 Squadrons continued to operate in the Skagerrak and Kattegat. They made 101 attacks, which is a new record. On the night of April 4/5, J/58 homed on to a Radar contact and illuminated a 4,000-ton merchant vessel and three escort vessels on a northerly course; the aircraft attacked and scored at least one direct hit. Before the aircraft left the target a pall of smoke rising to a height of 3,000 feet was seen by the jubilant crew. Five days later, N/58 left an 8,000-ton ship enveloped in flames and smoke. On the 20th, H/502 scored a direct hit amidships on a 4,000-ton merchant vessel, starting a fire which was still visible when the aircraft was 15 miles away. The following night M/502 set fire to a merchant vessel of 4,000 tons. These excellent results were not obtained without casualties, four aircraft being lost during the month. The Halifax Squadrons are credited with 5,998 tons of shipping sunk and 58,000 tons damaged in April.

16. Liberator aircraft on anti-U-Boat patrol again attacked shipping whenever the opportunity occurred. Fifteen attacks were made mainly with unobserved results, but on April 24 Liberator C/311 (Czech) attacked a 6,000-ton merchant vessel with A/S bombs and set it on fire.

17. The Command's anti-shipping results for the month's work were 22,056 tons of merchant shipping sunk, 14,735 tons seriously damaged and 90,385 tons damaged. In addition, 12 small vessels of various description were sunk or damaged.

I.—ANTI U-BOAT

SUMMARY OF ANTI U-BOAT OPERATIONS BY COASTAL COMMAND AIRCRAFT

(Including Iceland, Azores, Gibraltar and U.S. Moroccan Sea Frontier)

APRIL, 1945

Duty and Base or Area.	Total Sorties.	Hours Flown.		U-Boats Sighted.		U-Boats Attacked.		Hours per A and B Sighting.		No. of Sorties.	
		Base to Base. (2)	On Patrol. (3)	Day. (4)	Night. (5)	Day. (6)	Night. (7)	Base to Base. (8)	On Patrol. (9)	When U-Boat Sighted. (10)	When U-Boat Attacked. (11)
<i>Convoy Cover</i>											
United Kingdom	244	2,574	1,780	—	—	—	—	—	—	—	—
Iceland	41	437	293	—	—	—	—	—	—	—	—
Gibraltar and Moroccan Sea Frontier	112	870	582	—	—	—	—	—	—	—	—
Azores	2	21	6	—	—	—	—	—	—	—	—
TOTAL CONVOY EFFORT	399	3,902	2,661	—	—	—	—	—	—	—	—
<i>A/U Patrols</i>											
<i>North Sea—Baltic</i>											
United Kingdom	264	1,778	709	9 (4)	4 (1)	7 (4)	4 (1)	99	39	50 (5)	45 (5)
<i>Northern Transit</i>											
United Kingdom	480	4,738	2,870	4 (6)	—	3 (3)	—	474	287	20 (6)	13 (3)
Iceland	110	1,249	533	2 (3)	—	1 (2)	—	250	106	2 (3)	1 (2)
<i>Northern Convoy (including Irish Sea)</i>											
United Kingdom	607	6,642	5,164	7 (2)	1 (1)	6	1 (1)	604	469	7 (3)	7 (1)
Iceland	5	48	25	—	—	—	—	—	—	—	—
Azores	60	730	227	—	2	—	—	365	113	2	—
<i>Bay of Biscay and Channel Approaches</i>											
United Kingdom	949	8,847	6,139	4 (1)	—	3 (1)	—	1,769	1,228	4 (1)	3 (1)
<i>Central Convoy</i>											
Gibraltar and Moroccan Sea Frontier	88	519	370	—	—	—	—	—	—	—	—
TOTAL A/U PATROLS	2,563	24,551	16,037	26 (16)	7 (2)	20 (10)	5 (2)	481	314	85 (18)	69 (12)
ADD CONVOY EFFORT	399	3,902	2,661	—	—	—	—	—	—	—	—
TOTAL A/U EFFORT	2,962	28,453	18,698	26 (16)	7 (2)	20 (10)	5 (2)	556	357	85 (18)	69 (12)
				33 + (18) U-Boats Sighted.		25 + (12) U-Boats Attacked					

Notes.—(1) The above figures do not include 2 Night Attacks with torpedoes on 2 surfaced U-Boats in the Skagerrak carried out by aircraft on Anti-Shipping Patrols. Also excluded are 6 Chance Sightings (4 Grade "A" + 2 Grade "B") by unarmed training aircraft and aircraft on other duties.

(2) In addition to the above 7 contacts were attacked. In 3 of these incidents attacks were made following homing to the position of a previous attack on a Grade "B" target by another aircraft.

(3) During the month 7 U-Boats have been attacked by 3 Strike Wings in the Baltic Approaches. In these engagements a total of 51 aircraft carried out attacks on the U-Boats, hence the large number of aircraft listed under columns (10) and (11).

(4) Details of Grade "B" targets (i.e., a swirl, wake, or smoke believed caused by a U-Boat) are shown separately in brackets and are not included in the main totals.

Squadron Results, April, 1945

Sightings by A/U Aircraft

				Sorties when U-Boat Sighted.	Sorties when U-Boat Attacked.
236	Beaufighter	North Coates ..	..	— (1)	— (1)
144	Beaufighter	Dallachy ..	..	9	9
455 (R.A.A.F.)	Beaufighter	Dallachy ..	..	8	2
					} All on one wing strike.
63 (U.S.N.)	Catalina	Dunkeswell ..	..	1 (1)	1
202	Catalina	Castle Archdale ..	..	1	1
210	Catalina	Sullom Voe ..	..	— (2)	— (1)
162 (R.C.A.F.)	Canso	Reykjavik ..	..	1 (3)	— (2)
53	Liberator L.L.	Reykjavik ..	..	1	1
59	Liberator L.L.	Ballykelly ..	..	1	1
103 (U.S.N.)	Liberator	Dunkeswell ..	..	1	1
110 (U.S.N.)	Liberator	Dunkeswell ..	..	1	1
114 (U.S.N.)	Liberator	Lagens ..	..	2	—
120	Liberator L.L.	Ballykelly ..	..	2 (1)	2 (1)
206	Liberator L.L.	Leuchars ..	..	5 (2)	5 (2)
224	Liberator L.L.	Milltown ..	..	1 (4)	— (4)
311 (Czech)	Liberator	Tain ..	..	1	1
547	Liberator L.L.	Leuchars ..	..	1 (1)	1
143	Mosquito	Banff ..	..	15	15
235	Mosquito	Banff ..	..	16	12
248	Mosquito	Banff ..	..	14	13
					} All on two wing strikes.
10 (R.A.A.F.)	Sunderland	Mount Batten ..	..	1	—
201	Sunderland	Castle Archdale ..	..	1 (1)	1
423 (R.C.A.F.)	Sunderland	Castle Archdale ..	..	1	1
172	Wellington L.L.	Limavady ..	..	— (1)	—
304 (Polish)	Wellington L.L.	St. Eval ..	..	1 (1)	1 (1)
				85 (17)	69 (11)

Sightings by Aircraft on other duties

489 (R.N.Z.A.F.)	Beaufighter	Dallachy ..	..	{ 2 1	2
8 O.U.	Mosquito	Haverfordwest ..	..	1 (1)	—
333 (Norwegian)	Mosquito	Banff ..	..	1	—
235	Mosquito	Banff ..	..	1	—
6 O.T.U.	Wellington	Silloth ..	..	— (1)	—
				6 (2)	2

Notes.—(1) In addition to the above seven contacts were attacked by aircraft of the following squadrons:—

53, 63, 86 (six aircraft on five contacts).

(2) Grade B targets are shown separately in brackets.

Assessments

(Received up to 14th May, 1945)

Month.	Known Sunk	Probably Sunk.	Damaged. A.	Damaged. B.	Slight Damage.	Insufficient evidence of Damage.	No Damage.	Unassessed
February ..	—	1*	—	—	1	11	4	1
March ..	1	—	—	1	—	19	8	10
April ..	3	1	—	2	—	—	—	19 (12)

* The February "Probably Sunk" is shared with Naval Forces in the following circumstances. The target was first located by a Coastal aircraft which was not in a position to attack. The aircraft homed to the position an Escort Group which found and probably sunk the U-Boat. The Admiralty Assessment Committee have awarded part of the credit for this success to the aircraft which first found the enemy.

RECENT ATTACKS ON U-BOATS

Anti U-Boat Sweeps in the Western Baltic

On March 27, the following signal was sent by the Air Officer Commanding-in-Chief to the Commanding Officers of Nos. 547 and 311 Squadrons :—

" Please convey my congratulations to all crews concerned in the dashing and successful operations against U-Boats and enemy surface vessels in the Baltic on the nights of 23/24 and 26/27. You have proved to the Hun that he now possesses no waters where his U-Boats are free from air attack."

During the moon periods in February and March, 1945, three anti U-Boat sweeps have been made in the U-Boat training areas around the Island of Bornholm in the Western Baltic. Without loss, 45 Liberators of 18 Group have made sixteen depth charge attacks on U-Boats and 23 depth charge attacks on surface craft. In addition there have been numerous attacks with machine gunfire. Although there is little definite evidence of results, there is no doubt that these attacks have gravely interfered with the enemy communications and training in his last available training area. These sorties were referred to under the code name "Chilli" with a figure to indicate the serial number of the operation. Brief details of the three sweeps are given below.

Chilli I

The first Baltic operation took place on the night of February 3/4, when seven Liberators of 206 Squadron and eight Liberators of 547 Squadron took off from Leuchars in appalling weather conditions. D/206 had an engine fire on take off and, after jettisoning the Leigh Light and the depth charge load, was able to land at Wick where the weather was better. B/206 had crossed the North Sea when it was intercepted by night fighters who maintained contact for over an hour. After flying low and taking evasive action on the Radar operator's instructions, B/206 eventually shook off the enemy but was left with insufficient fuel to carry on with the operation and had to return to base. The other aircraft entered the Baltic where seven covered their patrol without contacting a target. The remaining six aircraft made depth charge attacks on four U-Boats and two surface craft. E/206 reported attacking a Narvik destroyer. The enemy replied with intense flak, but, although badly damaged, the Liberator returned and made a safe landing.

Summary of U-Boat Attacks—Chilli I

After obtaining a group of eight Radar contacts at 10 miles range, C/206 illuminated a fully surfaced U-Boat too late to attack, the aircraft flew on for 10 miles and returned to attack the wake left by a submerging U-Boat. The Leigh light was not used, but the wake is reported to have been straddled.

J/206 obtained a Radar contact at 10 miles, switched on the Leigh light at one mile in position 55° 17' N., 16° 03' E., and attacked from the U-Boat's port beam. Insufficient allowance was made for relative drift and the aircraft tracked slightly astern of the conning tower. Although

the depth charges straddled, it is impossible to say whether the attack was lethal or a close miss astern.

E/547 gained contact at a range of 15 miles. Details of the homing are not available, but after an abortive first run where the U-Boat was sighted in position 55° 15' N., 16° 50' E., but not attacked, an attack was made from Green 45° relative to the U-Boat and depth charge explosions were reported to have straddled aft of the conning tower.

Chilli II

The second Baltic operation was made by eight aircraft from 547 Squadron and eight from 311 Squadron (Czech) on the night of March 23/24. Only five of these aircraft failed to find a target. Depth charge attacks were made on seven U-Boats and six surface vessels. In most cases the enemy was taken completely by surprise, and, although there was a certain amount of flak, none of our aircraft was damaged.

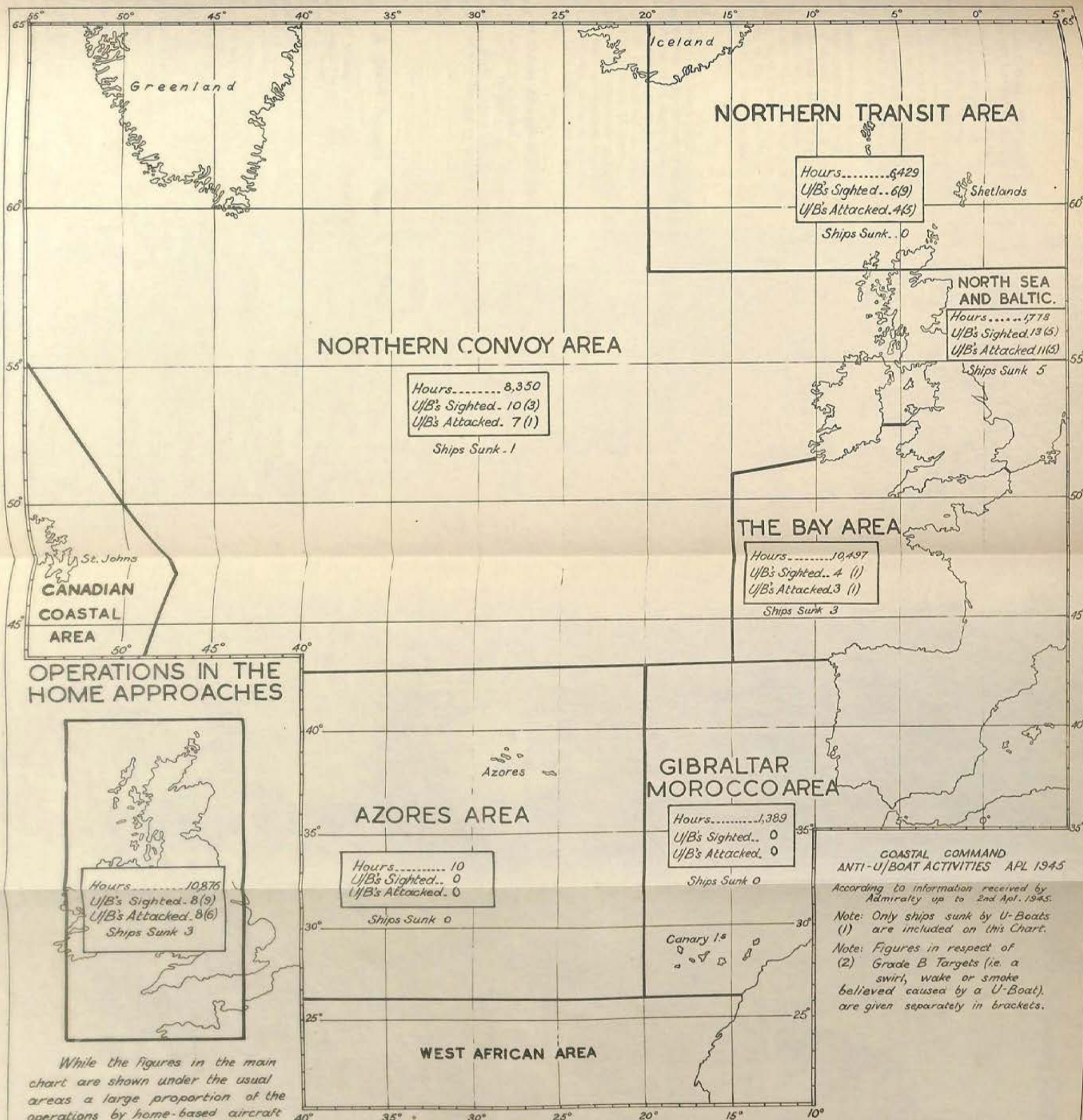
Summary of U-Boat Attacks—Chilli II

E/547 obtained Radar contact at eight miles and manoeuvred round the target which was in position 55° 29' N., 15° 19' E., so as to attack into moon. This resulted in an up track attack, but owing to a faulty Radar approach, the stick of depth charges fell along the U-Boat's port side probably out of lethal range. A second approach was made from Red 20° relative to the U-Boat and it would seem that a straddle was obtained across the stern.

The starboard beam lookout of H/547 sighted a black object and a wake bearing Green 90° distance one mile and shortly afterwards the Radar operator discovered a contact Green 125° at two and a half miles. "H" carried on till the contact was five and a half miles away and then turned to attack from the U-Boat's starboard quarter. The aircraft appears to have tracked accurately but the depth charges are thought to have overshot.

D/547 contacted a U-Boat at six miles dead ahead in position 54° 53' N., 15° 20' E., and obtained a visual sighting at two and a half miles in the moonlight. The U-Boat, originally meeting the aircraft head on, turned to starboard before the attack and "D" reports having attacked from Red 90°. It appears that the ten depth charges made a perfect straddle—if this was so then the U-Boat should have sunk.

Y/311 (Czech) obtained a group of contacts at about six miles ahead. The first run was abortive but a second attempt was made from Green 160°



While the figures in the main chart are shown under the usual areas a large proportion of the operations by home-based aircraft were over inshore waters. To illustrate these separate (but not additional) figures are given in the inset.

**COASTAL COMMAND
ANTI-U/BOAT ACTIVITIES APL 1945**

According to information received by Admiralty up to 2nd Apr. 1945.

Note: Only ships sunk by U-Boats (1) are included on this Chart.

Note: Figures in respect of (2) Grade B Targets (i.e. a swirl, wake or smoke believed caused by a U-Boat) are given separately in brackets.

relative to the U-Boat. The depth charges were seen to straddle forward of the conning tower.

U/311 (Czech) found three Radar contacts ahead at 8, 14 and 21 miles respectively. The Leigh light was used against the first two contacts in turn but nothing was seen due to the haze. When one mile from the third contact, a fully surfaced U-Boat was seen without the Leigh light in position $54^{\circ} 57' \text{ N.}$, $14^{\circ} 35' \text{ E.}$ An attack was made from the U-Boat's starboard quarter and the depth charges straddled in the region of the stern. It is not possible to say if the stick was lethal.

D/311 (Czech) obtained a Radar contact at nine miles. At three-quarters of a mile the Leigh light was switched on and turned off because visibility became nil, but just before it was doused a fully surfaced U-Boat was seen dead ahead distant a quarter of a mile. An attack was made from Red 115° and the depth charges were seen to straddle in the region of the U-Boat's bow. No photograph was taken, so the accuracy of the attack cannot be assessed.

Chilli III

On the night of March 26/27 ten aircraft of **547 Squadron** and eight aircraft of **311 Squadron (Czech)** made the third Baltic operation. Again only five aircraft failed to find a target and again all our aircraft returned safely. Depth charges were used in attacks on 15 surface vessels and five U-Boats. This operation produced a good selection of night photographs—mainly of the attacks on shipping. It was disappointing to see that there is still a large line error in many of our night attacks.

Summary of U-Boat Attacks—Chilli III

B/547 contacted a schnorkel at seven miles in position $55^{\circ} 23' \text{ N.}$, $15^{\circ} 56' \text{ E.}$, and attacked with machine guns. Eight minutes later a U-Boat was contacted at seven miles and an attack was made

from the U-Boat's port beam. Adequate allowance was made for a relative drift of some 8° and it would appear that the U-Boat was straddled. Unfortunately, as this attack was not recorded on a photograph, the straddle cannot be confirmed. About half an hour later, while avoiding action was being taken against a Narvik destroyer, another schnorkel was sighted. An attack was made using machine guns.

Z/311 (Czech) obtained a Radar contact at seven miles and illuminated a fully surfaced U-Boat but the homing was bad and no attack could be made. A second approach was made and "Z" attacked from the U-Boat's port quarter. No photographs were taken to confirm the visual evidence which suggests a straddle forward.

K/311 (Czech) sighted three dark shapes in position $55^{\circ} 20' \text{ N.}$, $15^{\circ} 38' \text{ E.}$, close under the port wing, circled to do an attack and identified two U-Boats and a trawler. An attack was made from Green 100° relative to one of the U-Boats but the depth charges were thought to have undershot. A photograph was taken showing the trawler and the explosion of some of the depth charges: the U-Boat and the latter half of the depth charge stick were not shown in the picture. In the background of the photograph can be seen a vessel surrounded by depth charge plumes illuminated by another aircraft's photo flash. This was, presumably, Z/311 making the attack referred to above. While returning to the scene of the first attack, K/311 sighted visually a U-Boat in the act of diving. Although the range was less than one mile, an attack was made and the conning tower was claimed to have been straddled. No photographs were taken of this attack.

L/547 obtained a contact at seven miles range, homed and sighted a conning tower and a swirl in position $54^{\circ} 57' \text{ N.}$, $14^{\circ} 20' \text{ E.}$ An attack was made but there is no evidence as to the points of entry of the depth charges in relation to the target.

A good Attack with the last four Depth Charges

Just before midnight on March 23, **Liberator E/547** was flying in the Baltic almost due south at 500 feet when a Radar contact bearing Red 40° range eight miles was obtained. At the time of the contact the sea was calm but the visibility was impaired by haze. The aircraft continued on the same course for 45 seconds to identify the speed of the contact, then course was altered to 107° to close target and verify that the contact was not an aircraft. Several further alterations of course were made in order to circle the target and approach up moon. At a distance of one mile a fully surfaced U-Boat was sighted in the moonpath bearing Green 10°, in position $55^{\circ} 29' \text{ N.}$, $15^{\circ} 19' \text{ E.}$, course 240° at twelve knots. At the time of sighting the aircraft was flying on course 232° at 300 feet. The U-Boat appeared to have very streamlined conning tower and clear after deck. The front gunner at once opened fire scoring many hits on and around the conning tower. The second pilot called "turn starboard" and a turn was made towards the target. The bomb aimer had switched on the Leigh Light

at one mile and illuminated the U-Boat as it passed slightly to starboard. The aircraft attacked at an angle of Green 172° to the U-Boat's course, releasing from 300 feet six depth charges, set to shallow depth and spaced at 55 feet. The depth charges were dropped by visual estimation and were seen to enter the water parallel to and fifty yards to port of the U-Boat. The starboard beam gun was fired by the flight engineer and the rear gunner also fired at the conning tower. After passing the U-Boat, A.S.V. contact was held and when it was one mile astern it was decided to attempt another attack immediately. The contact was held whilst the aircraft turned through 215° to a course of 087°: the contact was now bearing Red 20° at a range of one and a quarter miles. Course was altered Red 20° and the U-Boat was again seen in the moonlight slightly to starboard at a distance of one mile. The aircraft tracked over the U-Boat and attacked releasing from 300 feet four depth charges, set to the same depth and spacing. The attack was at an angle of Red 10°

to the U-Boat which had turned to starboard on to course 260°. The points of entry of the depth charges was seen and a straddle is claimed, the first depth charge exploding ten feet from the stern. Many hits were again scored on the conning tower and the deck of the U-Boat by the nose and tail gunners, and the port beam gun was fired by the flight engineer as the U-Boat drifted out to port. A course of 067° was maintained and the Radar contact was held for approximately one and a half miles, when it began fading at a range of three miles, and at a range of four and a half miles the contact completely disappeared. The aircraft turned on to a reciprocal course but nothing further was seen. The aircraft left the area at 2354 hours as P.L.E. had been reached.

Comment

After a good preliminary approach and an abortive first attack, the crew appear to have saved the situation by making a good attack with the last four depth charges. From visual evidence a straddle was obtained right ast. Unfortunately, the night photographs failed to produce the confirming evidence of the position of the stick and no after results were seen, so it is impossible to give an assessment.

A lament in the Form Ubat about the poor visibility suggests that A.S.V. homing is not expected to track the aircraft over the target. Command experience shows that unless the homing is improved to the standard where no visual correction is necessary, a Liberator is unlikely to make a successful night attack.

Unsuccessful A.S.V. Homing

During the night of March 26, **Liberator Z/311 (Czech)** was patrolling in the Baltic on course 191° at 400 feet when the Radar operator picked up a contact bearing Red 60°, range seven miles. The aircraft altered course and homed. When flying on course 160° at 500 feet Leigh Light was switched on at a distance of three quarters of a mile and the navigator sighted at the edge of the beam a fully surfaced U-Boat bearing Red 10°, distant a quarter of a mile, in position 55° 32' N., 15° 21' E., course 320°, stationary or moving very slowly. The U-Boat was clearly seen both in Leigh Light and moonlight. It appeared to have a streamlined conning tower and a very long and narrow hull which seemed darker than the conning tower. The aircraft was not in a position for a successful attack so the captain opened range to about a mile, made a tight turn to port, and when flying on course 335° attacked, releasing from 250 feet six depth charges, set to shallow depth, spaced at 55 feet, at an angle of about 15° to the U-Boat's track from port

quarter to starboard bow on heading 340°. The depth charges straddled the bows about 50 feet from the stem. The front gunner fired 100 rounds of 0.5. After the attack the aircraft opened range and made another run out. Before the position was reached the Radar contact disappeared and no results could be seen. The aircraft left the area at 2331 hours, three minutes after the attack. At the time of the attack there was no cloud, the sea was calm and the visibility was five miles.

Comment

At the first attempt the homing was bad and no attack could be made. The U-Boat was, it appears, completely surprised and remained on the surface while a second run was made. The visual evidence indicates a straddle forward, but in the absence of photographs or other after evidence, it is impossible to assess the result, although the short run would make it unlikely that that attack was accurate. At the least, however, the U-Boat must have had a nasty shock in its own home waters.

An Attack with the A.S.V. Bombsight

Some of our Liberators are now fitted with the A.S.V. bombsight, Mark VII. The bomb aimer sits in the nose of the aircraft, and, by juggling a pair of double knobs, keeps the contact on the cross wires in the middle of his screen. The movement of the bombsight controls is fed into the azimuth control of the automatic pilot and a constant bearing approach is flown, while the speed of closing is automatically calculated and the bomb release fires at the appropriate moment.

In the early hours of April 4, **Liberator B/206** was en route to an anti-U-Boat patrol area flying at 200 feet when a Radar contact was picked up bearing Green 85° range eleven miles. The weather at the time was fair with a moderate sea and clear visibility, wind 286° 21 knots. The aircraft continued on the same course and the contact was watched. The Radar operator reported that the blip was difficult to hold on the screen, and as he had been on watch for 45 minutes, operators were changed and the contact watched around to Green 130°, range 14 miles. It was then decided that contact was not an aircraft and "B" altered course to intercept, turning

on to 175° when the target came up on the starboard bow. It was decided to attack across wind to reduce the danger from a possible balloon should contact have been a ship. The aircraft turned 90° to starboard on to course 266° and the target was now bearing 60°. This course was held until the target was Red 90° and the aircraft then turned for a final run in, getting the target dead ahead at seven miles when the A.S.V. bombing run was started. The contact was first obtained when the aircraft was at 200 feet and during the homing this was worked up to 400 feet—the pre-arranged height of attack. Relative drift was laid off by the bomb aimer

between seven and three miles and from three miles to point of attack the aircraft was steady. At one and a half miles the Radar operator gave target bearing Red 18° and at one mile the bomb aimer reported that the blip had disappeared from the screen. Depression of 5½° had been set on the Leigh Light for illuminating at one mile from 400 feet. The Leigh Light operator turned his light 17° to port and when the light was switched on, a fully surfaced U-Boat was sighted in the beam. The U-Boat was bearing Red 16°, distant one mile, in position 57° 52' N., 08° 36' E., course 270°, 13 to 15 knots. From the first pilot's seat it could be seen that the aircraft would track over the bows of the U-Boat so no alteration of course, which was 180°, was made. The U-Boat was a 740-ton type and four guns were firing. There was one large gun forward of the conning tower—similar to our 3.7-in. gun, with high bows and flat deck extending forward of this gun. The front gunner kept up a steady and accurate fire against the conning tower until the U-Boat was passing under the port wing of the aircraft when Leigh Light was switched off. The attack was made from Green 85° to the U-Boat's course, releasing from 400 feet, four 600-lb. A/S bombs, fuse setting 30 feet, spaced at 90 feet, using the A.S.V. bombsight. The U-Boat was still visible at the time of attack. The rising plume caused by the explosion of the first bomb was seen by the rear gunner on the starboard side and very slightly forward of the U-Boat's bow, the second and third explosions were seen on the port side—the rear gunner is

uncertain of distances as he was firing at the time. The engineer observed three plumes only but no U-Boat. Moderate light flak came up from the U-Boat without causing damage. This was answered by the rear gunner with about 150 rounds fired at both the flak and explosion plumes. After the attack moderate undulating and turning evasive action was taken through a fairly wide turn of 360°. No further flak was met and no further Radar contact was obtained when the aircraft returned to the area or subsequently when flying away from the position. At the time of the sighting, the U-Boat, although fully buoyant, was taking a good deal of sea over her bows, and was evidently completely surprised by the sudden illumination and gunfire. One photograph was taken during the attack and though the U-Boat is not seen a source of flak is visible.

Comment

The A.S.V. bombing technique worked smoothly and an accurate attack should have resulted. The relative drift appears, however, to have been slightly over-estimated by the bombsight with the result that the aircraft tracked forward of the conning tower, but according to the photograph the attack may well have been lethal in line. The flak has made it difficult to estimate the position of the A/S bomb entries, but if the photograph shows the last bomb exploding, then the attack was an under-shoot. On the other hand, if the first bomb is shown in the photograph, the stick should have either been lethal or a close miss ahead, near enough to have caused damage at least.

Outstanding Attack by Mosquitos: Two U-Boats sunk

During the late afternoon of April 9, 13 Mosquitos of 143 Squadron, nine Mosquitos of 235 Squadron, nine Mosquitos of 248 Squadron including the leader, two Mosquitos of 333 Squadron and one unarmed Mosquito of R.A.F. Film Unit were on rover patrol flying at 2,500 feet when the wing leader sighted two wakes in line astern, bearing Red 10°, distant seven miles in position 57° 58' N., 11° 15' E., course 350°, speed approximately 14 knots. The wakes were 200 yards apart. The leader immediately turned the formation to starboard in order to attack down sun and two minutes later ordered 143 Squadron to attack the targets. 143 Squadron leader ordered one section to attack the leading target and led the second section to attack the rear target. As 143 Squadron were diving to attack on a course of 110° one of the pilots informed the wing leader that the targets were both U-Boats. The wing leader ordered 235 Squadron to follow 143 Squadron and attack both targets, as 248 Squadron (the leading squadron of the wing) was past the target. The first U-Boat was probably a 740-ton type, greenish grey in colour, two bandstands, two guns—probably 20-mm.—on upper bandstand, one gun on lower bandstand; jumping wires were also seen. The second U-Boat was probably a 517-ton type, darker in colour than the first U-Boat, two bandstands with two twin guns—probably 20-mm.—on upper bandstand, and one gun—probably 37-mm.—with shield on lower bandstand. The leading U-Boat

was attacked with R.P. at ranges of 800 to 300 yards, heights 1,200 down to 200 feet, in dives of 15 to 8 degrees. Six dry hits were obtained on the base of the conning tower and possibly four wet hits astern. Two dry hits were also obtained on the base of the conning tower and four wet hits below the conning tower. Many results were unobserved due to thick smoke and spray; 4,170 rounds of tracer were fired at the U-Boat and strikes were observed on the conning tower and whole length of the hull; 99 hits were seen altogether. After the attack by sections of 143 and 235 Squadrons this U-Boat was seen to submerge. It soon re-surfaced with the bows out of water and the stern awash. The Wing Leader had taken 248 Squadron round the target and seven aircraft of 248 Squadron went in to attack on a heading of 90°. The U-Boat was awash abaft the conning tower and the bows were out of water at a 5° to 15° angle. Immediately after the 248 Squadron aircraft attacked at 1730 hours a large explosion was seen—this was accompanied by a terrific flash and sheet of flame. An instantaneous mushroom of greyish white smoke bellowed out and debris was flung into the air. There was a complete disintegration, and after the smoke cleared away a lengthening patch of oil and discoloured water remained in the former position of the U-Boat, with some debris floating in and around the patch of oil. Some yellowish brown cylindrical objects were noticed. Moderate, inaccurate heavy flak was met from position

forward of the conning tower during the early part of the attack on this U-Boat. At the same time moderate, fairly accurate light flak, possibly 20- and 37-mm., came from positions abaft the conning tower. The second U-Boat was also attacked with R.P. at ranges from 650 to 300 yards, heights 500 to 200 feet, in dives of 12° to 10°. Two wet hits and eight dry hits were obtained amidships and just aft of the conning tower, and two possible wet hits below the conning tower. Smoke and spray prevented observation of many R.P. results; 2,250 rounds of tracer were fired at this U-Boat and strikes were seen on the conning tower, base of the conning tower and hull, 68 hits being observed in all. After the attack by the first section of 143 Squadron an explosion was seen on the U-Boat, some aircraft being damaged by flying debris. This U-Boat then turned hard to starboard on to a course of 090°, leaving a long oil slick, and after the attacks by the remainder of 143 and 235 Squadrons it was seen to turn on to its

side and disappear, stern first. A large circular oil patch and brilliant red and green discoloration of the water was seen about 60 to 70 yards to starboard of the oil slick. Inside the circular patch was a considerable amount of debris, apparently small pieces of wood and cork. 10 to 12 yellow objects, believed to be dinghies, and bubbles were also seen. Some aircrews reported survivors in the water. There was no flak from the second U-Boat. (See Plate 1.) Four aircraft were damaged from flying debris thrown up by the U-Boats, and three other aircraft did not return—these three aircraft reported setting course for neutral country. The Film Unit Mosquito was seen to be thrown into the air by the explosion of the U-Boat, the aircraft then turned on its back and spun into the sea. No survivors were seen.

Comment

This was an excellent attack which resulted in the killing of two U-Boats. All crews are to be congratulated on the success of this attack.

Excessive Line Error

Early in April an aircraft was flying on an anti U-Boat patrol in fair weather, with 10/10 thin cloud at 3,000 feet, visibility 3½ miles when an oil slick was sighted two miles away. Wind was southerly at ten knots and the sea was calm.

The aircraft altered course to investigate and found that the slick was about five miles long and about twenty feet wide. Iridescent oil similar to paraffin was rising in blobs at the head of the slick which was on a course of 270° T. for the first two miles, changing to 160° at the tail. The head of the slick was investigated for twenty minutes and at 1730 hours a flame float was dropped ten yards ahead of the slick. At 1745 hours a marine marker was dropped some fifty yards due north of the head of the slick and shortly afterwards five depth charges were released from 150 feet spaced at 60 feet using the Mark III bombsight and aimed to straddle the head of the slick. Photographs were taken showing the position of the explosion of the depth charges in relation to the target. (See Plate 3.)

After five minutes the slick was seen to be on a course of 250°. An increase of the volume of oil rising and of the forward movement were observed. The oil continued on 250° until it was 1,200 yards past the marker and the rise of oil appeared to cease or slow up about one hour after the attack, but this cannot be definitely established.

Comment

Although it is likely that this oil was caused by a wreck, the correct action was taken in making a deterrent attack aimed to straddle the head of the

oil slick. A good release was made using the Mark III bombsight, but the tracking was hopelessly inaccurate. The excellent photographs show that there was a line error of some 150 feet.

It would seem that the tracking error was caused by the failure to appreciate and allow for a small drift of about 5°. The pilot apparently did not realise the need for a constant bearing approach and made the elementary error of trying to bomb after approaching on a curve of pursuit.

The slick was heading 270° and the aircraft presumably started the approach some three miles from the apex and in line with the slick. The ten knot southerly wind gave the aircraft a drift of about 5° starboard but no allowance was made for this. As soon as the pilot realised that the nose was no longer pointing at the head of the slick, course was altered to bring the target ahead. The drift was still about 5° starboard and the target thus moved over to port again. The effect of the wind resulted in the attack being made on a track of about 255° T. instead of 270° T. as was intended. The pilot did not realise that for a successful attack the target should have been on a bearing of 5° starboard when the depth charges were released. In actual fact it would seem that the target was about 7° on the wrong side of the aircraft heading when the release was pressed. It is not understood how the pilot failed to see this error; a second approach should have been made.

This mistake was made by a crew from a squadron which is, in theory, Leigh Light trained. If the above mistake is made in good conditions with a light wind in daylight, there is little hope of an accurate Leigh Light attack on a dark night.



These excellent photographs were taken by the aircraft whose attack on an oil slick is described on the opposite page. The large line error is shown to be in a down-wind direction.





Josingfjord, brought into the news by the *Altmark* "incident" five years ago, was the scene of a Dallych Wing Strike on April 14, 1945. The Depot Ship *Adolf Luderitz*, a U-Boat, a tanker and two "M" class minesweepers were present. The upper photograph shows the two minesweepers and the U-Boat under attack and the tanker on fire in the background. The "M" class minesweeper in the foreground has just fired a P.A.C. and the U-Boat, obscured by smoke, is lying alongside her (see Letterpress page 13).



II.—ANTI-SHIPING

SUMMARY OF ANTI-SHIPING OPERATIONS BY COASTAL COMMAND AIRCRAFT APRIL, 1945

Weapons Carried.	Number of Sorties.			Number of Aircraft to Attack.			Target.	
	On Reconnaissance.	On Strike.	Total.	On Reconnaissance.	On Strike.	Total.	Merchant Vessel.	Naval.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DAY OPERATIONS								
Torpedo ..	9	118	9	56 (20)	77	133 (20)	150	3
R.P. ..	147 (20)	—	265 (20)	—	—	—	—	—
Bomb ..	21	—	21	26	1	27	—	27
Depth Charge ..	632	8	640	2	—	2	—	2
Tsetse ..	21	—	21	26 (3)	21	47 (3)	46	4
Cannon and M.G. only ..	124 (3)	22	146 (3)	—	—	—	—	—
TOTAL—DAY ..	954 (23)	148	1,102 (23)	110 (23)	99	209 (23)	196	36
NIGHT OPERATIONS								
Torpedo ..	34	6	40	4	—	4	4	—
R.P. ..	45	15	60	2	—	2	1	1
Bomb ..	358 (14)	1	359 (14)	157 (14)	1	158 (14)	99	73
Depth Charge ..	26 (1)	—	26 (1)	4 (1)	—	4 (1)	—	5
Tsetse ..	—	—	—	—	—	—	—	—
Cannon and M.G. only ..	21	15	36	1	—	1	—	1
TOTAL—NIGHT ..	484 (15)	37	521 (15)	168 (15)	1	169 (15)	104	80
ALL OPERATIONS								
Torpedo ..	43	6	49	4	—	4	4	—
R.P. ..	192 (20)	133	325 (20)	58 (20)	77	135 (20)	151	4
Bomb ..	379 (14)	1	380 (14)	157 (14)	1	158 (14)	99	73
Depth Charge ..	658 (1)	8	666 (1)	30 (1)	1	31 (1)	—	32
Tsetse ..	21	—	21	2	—	2	—	2
Cannon and M.G. only ..	145 (3)	37	182 (3)	27 (3)	21	48 (3)	46	5
GRAND TOTAL ..	1,438 (38)	185	1,623 (38)	278 (38)	100	378 (38)	300	116

Notes.—(1) The figures in brackets represent attacks on Shipping by aircraft on duties other than Anti-Shipping.
(2) Included in the above figures are 647 Sorties directed against small Battle Units and comprising:—

- 11 Sorties with R.P.s
- 5 Sorties with Bombs.
- 612 Sorties with Depth Charges.
- 9 Sorties with Cannon and M.G. only.
- 10 Sorties with Tsetse.
- 42 Midget U-Boats were attacked.

FINAL ASSESSMENTS FOR MARCH, 1945

Day :—

Cannon and Tsetse—

- 1 Motor Launch, sunk.
- 1 Tug damaged.

R.P. and Cannon—

- 7 M.V.s (totalling 11,290 tons) sunk.
- 5 T.L.C.s sunk.
- 4 M.V.s (totalling 5,354 tons) seriously damaged.
- 1 Fleet Trawler seriously damaged.
- 3 M.V.s (totalling 13,669 tons) damaged.
- 2 T.T.A.s damaged.
- 2 T.L.C.s damaged.

Bombs and Cannon—

- 1 T.T.A. sunk.
- 1 Barge (500 tons) seriously damaged.
- 1 Motor Boat damaged.

D.C.s and Cannon—

- 1 Coaster (500 tons) seriously damaged.

Night :—

Bombs—

- 1 M.V. (1,845 tons) sunk.
- 1 Trawler (240 tons) sunk.
- 1 M.V. (6,031 tons) seriously damaged.
- 8 M.V.s (totalling 30,130 tons) damaged.
- 1 Trawler (1,000 tons) damaged.
- 1 T.L.C. damaged.
- 1 Floating dock damaged.

R.P. and Cannon—

- 1 E-Boat sunk.
- 1 E-Boat damaged.

Cannon—

- 1 Minesweeper damaged.

D.C.s—

- 1 T.T.A. sunk.

In addition 8 Midget U-Boats are provisionally assessed as sunk.

RESULTS CLAIMED FOR APRIL, 1945

(Note.—The results marked thus * have been finally assessed, the remainder are subject to assessment.)

Day :—

R.P.—

- *3 M.V.s (Totalling 10,320 tons) sunk.
- *1 Coaster (965 tons) sunk.
- *1 Tug sunk.
- *1 Tanker (6,031 tons) seriously damaged.
- 1 M/V (4,969 tons) seriously damaged.
- 1 " M " class M/S seriously damaged.
- *6 M.V.s (Totalling 24,370 tons) damaged.

R.P. and Cannon—

- *1 M.V. (4,595 tons) sunk.
- *1 " M " class M/S. sunk.
- *3 T.T.A.s sunk.
- *1 Coaster (178 tons) sunk.
- *1 Coaster (535 tons) seriously damaged.
- *1 Depot ship (3,615 tons) damaged.
- 1 M.V. (3,600 tons) damaged.
- *1 " M " class M/S. damaged.

D.C.s—

- 5 Midget U-Boats sunk.

D.C.s and Cannon—

- 6 Midget U-Boats sunk.

Cannon—

- 2 Midget U-Boats sunk.
- 1 Coaster (200 tons) seriously damaged.
- *1 T.T.A. damaged.
- 1 Barge (300 tons) damaged.

Night :—

Bombs—

- *3 M/V.s (Totalling 5,998 tons) sunk.
- *1 E/V. sunk.
- *2 M/V.s (Totalling 3,000 tons) seriously damaged.
- *1 D.D. damaged.
- 9 M/V.s (Totalling 48,000 tons) damaged.
- 1 Tanker (7,000 tons) damaged.
- 1 " M " Class M/S. damaged.
- *1 E/V damaged.

Torpedo—

- 1 M/V (3,000 tons) damaged.

Cannon—

- 1 Coaster (500 tons) damaged.

Shipping Strikes in April

A very profitable attack was made on April 2 by 39 **Mosquitos** of the **Banff Wing** on shipping in Sandefjord. R.P. was the main weapon used and many hits were scored on several merchant ships and a tanker. Two merchantmen, the *Concordia*, 5,100 tons, and the *William Blumer*, 3,600 tons, were sunk, and three others totalling 16,370 tons were damaged. A 6,000-ton tanker, the *Kattegat*, was also damaged. Two **Mosquitos** were damaged and failed to return, but it is believed that they landed in neutral territory (See Plate 5.)

On the night of April 4/5 **Halifax J/58**, after homing on to a Radar contact in the Kattegat, illuminated a 4,000-ton merchant ship and three escort vessels on a northerly course. The pilot attacked with six 500-lb. bombs and scored at least one direct hit. There was a great explosion on the ship, followed by a large mushroom of flame, and debris was seen flying in all directions. When the aircraft left the area of the attack a pall of smoke had risen to a height of 3,000 feet.

On April 5 the **Banff Wing Mosquitos** attacked a convoy of six ships in the Kattegat. They scored a great many hits with R.P. and cannon, damaging three trawler type vessels, two of them seriously. Three Mosquitos failed to return.

On April 7, **21 Beaufighters** of the **Dallachy Wing** sighted two merchant ships and two escorts near Vadheim in Sogne Fjord. They attacked with R.P. and cannon and obtained about ten R.P. hits on the larger of the two merchant vessels (see plate 6). This ship, the *Oldenburgh*, 4,595 tons, is now known to have sunk. The Beaufighters were intercepted by enemy fighters, but all managed to return to base. One of them, however, was so badly damaged that the pilot had to crash land, fortunately without injury to the crew.

While on anti-shipping patrol in the east Skagerrak on April 8, **Mosquito N/333 (Norwegian)** sighted a trawler type auxiliary. The pilot attacked with his cannon and machine guns, scoring many strikes and leaving the vessel blazing all along the superstructure. There was no return fire and the gunners were seen to be dead at their guns.

Early on April 10 **Halifax N/58** homed on to a Radar contact in the Kattegat, and sighted an 8,000-ton ship accompanied by another merchantman, a destroyer and two escort vessels. An attack was made with 500-lb. bombs and a straddle amidships was scored on the 8,000 tonner. Two direct hits were estimated and the ship was left enveloped in flames and smoke.

The next day **Dallachy Wing Beaufighters** attacked shipping in Fede Fjord and, despite intense flak from ships and shore batteries, succeeded in sinking an "M" class minesweeper. One Beaufighter is missing.

Mosquitos of the **Banff Wing** were also in operation on April 11. Thirty-five of them made an excellent attack on a number of small ships at Porsgrunn. They obtained many R.P. and cannon strikes which resulted in the sinking of three merchant vessels and a tug. Another ship of 2,000 tons was seriously damaged, and two more were damaged (see plate 10). Two Mosquitos were lost on this operation.

On April 14 **Beaufighters** of the **Dallachy Wing**, in addition to attacking a U-Boat, struck at shipping in Jossingfjord. Using cannon and R.P. they damaged an "M" class minesweeper and a depot ship, since identified as the *Adolf Luderitz*, 3,615 tons (see plate 4).

On April 19 the **Banff Wing**, on patrol in the Kattegat, sighted a minesweeper leading four fully surfaced U-Boats. The main Wing attack was concentrated on the U-Boats, but three **Mosquitos** of **235 Squadron** attacked the minesweeper with R.P. and cannon. At least six underwater hits were obtained with R.P., and a big explosion took place on the vessel. The

minesweeper was last seen listing and burning furiously. (See result of the attack on the U-Boats on page 2.)

On the night of April 20/21, **Halifax H/502** sighted in the Kattegat two 4,000-ton ships and another ship of 3,000 tons. An attack with 500-lb. bombs was made on one of the 4,000-ton merchantmen, and a direct hit scored amidships. This was followed by a heavy explosion which, in turn, was followed by an outbreak of fire. The fire increased and was still visible when the aircraft was fifteen miles away.

During the night following the above attack **Halifax M/502** also bombed shipping in the Kattegat. Two direct hits were obtained on a merchant vessel of 4,000 tons which was set on fire; the hits were followed by a great orange explosion on the target.

On April 23, **18 Beaufighters** of the **Dallachy Wing** sighted a merchant ship of 4,500 tons and two escort vessels in Risnes Fjord. They attacked the merchantman with R.P. and, scoring many hits, they left it listing and on fire. The two escorts were attacked with cannon only, numerous strikes being obtained. There was considerable flak from the ships and shore batteries, but all the Beaufighters returned to base. The ship attacked has since been identified as the *Ingerseks*, 4,969 tons.

Early the next day **Liberator C/311 (Czech)** on anti U-Boat patrol in the Kattegat homed on to a Radar contact and illuminated a heavily armed ship of 6,000 tons. The Liberator attacked with 600 lb. A/S bombs and scored a direct hit, setting the ship on fire. Intense flak was met and the aircraft was hit during its run in, and sustained considerable damage; fortunately none of the crew was hurt.

During the night of April 24/25, **Wellington D/524** made a visual sighting of four merchant vessels and six auxiliaries in the Heligoland Bight. The pilot attacked the two leading vessels with 250-lb. bombs but owing to intense flak had to take violent evasive action and was unable to see the bomb bursts. However, a large fire was seen in the target area before the aircraft left.

Shortly before midnight on April 25, **Beaufighter H/254** sighted three small vessels near the mouth of the Elbe. One of these vessels, a 500-ton coaster, was attacked with cannon in the face of intense flak. Many strikes were obtained on the target which was left on fire.

During the early morning of April 26, **Beaufighter O/489 (New Zealand)** made a torpedo attack on a 3,000-ton merchant ship near Hornborsund Light. The crew witnessed a terrific plume of black smoke followed by a fire which completely enveloped the stricken vessel. This fire was visible from a great distance.

III.—OTHER OPERATIONAL FLYING

Combats with Enemy Aircraft

During the evening of April 21 45 **Mosquitos** of the **Banff Wing** were returning from an uneventful anti-shipping patrol in the Kattegat. The Mustang escort had already left and at 2035 hours the Mosquitos sighted a mixed formation of 18 aircraft, comprising Ju.88s, Ju.188A and at least one He.111. These aircraft were on a course of 265° T. and were carrying torpedoes. The Mosquitos attacked from dead astern in position 57° 20' N., 03° 30' E., and succeeded in destroying nine of the enemy aircraft before they

were able to gain cloud cover. During the combats which took place not one of our aircraft was damaged.

On April 22 **Mosquito H/404**, on anti-shipping reconnaissance, sighted a BV.138 and an He.115 moored about 200 yards off shore near Kristiansand South. The pilot attacked the BV.138 with cannon and machine guns and scored many strikes. The enemy aircraft exploded immediately and a column of smoke rose to a height of 500 feet.

Photographic Reconnaissance

Despite weather and the ever shrinking area for operational photographic reconnaissance, 106 Group flew well over five hundred sorties during the month of April.

Bomber Command continued to provide new targets requiring damage assessment sorties, the most outstanding being Berchtesgaden, Heligoland, and the pocket battleship Scheer at Kiel.

Considerable effort was made to observe enemy rail movement and this task was 104 Wing's major commitment for the month.

Very extensive cover of the National Redoubt was made and roads in S.E. Europe were also covered, to assess the scale of enemy preparations for a last ditch stand.

P.R. of the enemy's ports has shown the gradual concentration of what remains of the German fleet and merchant navy. Routine recce. of Norway's ports and approximately fifty anchorages has provided considerable target intelligence for Coastal Command's relentless war on enemy shipping in those waters.

Cover of German airfields has shown the withdrawal of the Luftwaffe to the few remaining enemy bases and information on these concentrations has led to the almost complete destruction of the German air force on the ground.

The following reports were written by members of the air crews concerned.

541 Squadron. Spitfire

I was detailed to photograph an area north-east of Munich and as I approached the town from a south-westerly direction I noticed two non-persistent trails well above me to the east. I was flying at 27,000 feet just below the trails.

Thinking they were probably a couple of Allied fighters I prepared to start my first run over the target but kept a wary eye on them. Two minutes later as I was turning on to the target, I noticed that the trails had disappeared. I had a good look all round the area before switching on my camera and commencing my run but I saw nothing. I was therefore most surprised suddenly to observe two fighters on my starboard side turning into me, and at the same level as myself.

I turned in towards them violently and cut my throttle; one endeavoured to turn with me and the other passed under me and out of sight. I promptly opened up fully, both boost and revs. and tightened my turn until my aircraft was shuddering. I had by this time started a second circle and saw the fighter, which had originally slipped under my tail, in front of my "Plan View," and recognised it as a FW.190. Continuing to turn and climb I lost sight of it and then saw

the other which I also observed was a FW.190. This aircraft was some 300 to 400 yards slightly below and trying hard to turn inside me. During the next couple of minutes (it couldn't have been more, although it seemed like hours!) I saw only one of them at a time and became a little concerned. At this stage I heard another Allied aircraft calling a ground station for landing instructions and automatically I depressed my transmitter key and told him I was having a little trouble, he replied, "Sorry, old boy, I'm transport, but good luck anyway and be careful." A few minutes later a ground station called me up and asked if he could help me. I quickly told him the situation and he replied that if I would give him a long transmission he could probably help me. I replied that I was hardly in a position to do that and told him, in plain language, that I was somewhere between Munich and Salzburg. All this occupied the space of a bare minute and I was still turning and climbing flat out, and for the first time, since the encounter, saw both 190s well below me. My height was then about 31,000 feet and I lost sight of them soon afterwards and did not see them again. However, I still continued climbing and turning and at about 36,000 feet I was called again and asked if I was "quite



On April 2 the Banff Wing struck at a concentration of enemy shipping lying in Sandefjord. The comparatively flat countryside of this part of Norway gave the Mosquitos a clear run and allowed them to attack from the beam. They sank two merchant vessels totalling 8,700 tons and damaged a tanker and three merchant vessels totalling 22,401 tons. P.R.U. photographs taken several days after the attack showed that the floating dock (top photograph) in which the tanker *Kattegat* (6,031 tons) was lying, was listing so heavily that the deck of the tanker was awash on her starboard side (see Letterpress, page 12).



During the month of April the Dallachy Beaufighter Wing made a number of successful attacks under very difficult conditions. They sank the merchant vessel *Oldenburg*, 4,595 tons, on April 7 when she was lying at Vadheim off Sognefjord. The topography prevented the aircraft from attacking the ship's beam on and also forced them to attack into the sun (see Letterpress page 13).



happy." I answered that I appeared to have lost the 190s. As I was now "trailing" myself I turned sharply both ways and having already seen Lake Constance in the distance I made towards it. When I passed over the western edge of the lake I put my nose down and lost height very fast, crossing over Basle at 17,000 feet before levelling off and setting course for base. As I was soaking wet, I came back at maximum cruising revs. and boost.

544 Squadron. Mosquito

We were airborne at base at 0855 hours on April 25 and set course for Hanover, having been briefed to photograph targets around Stettiner Bay and at Copenhagen. We climbed on track to trail heights which was 30,000 feet, and descended 1,000 feet so as to fly just below. The sky was clear of cloud but the trail heights kept lowering until, at Hanover, we were down to 25,000 feet.

We reached our first target, Pasewalk aerodrome, at 1050 hours, and, although 4/10th cumulus had formed, one run was sufficient and we were equally fortunate on our next two targets, Anklam and Tutow aerodrome.

We then set course for Kaiser-Fahrt Canal where we were to search for the *Lutzow*. Innumerable columns of smoke were rising from the Russian front to a height of 5,000 feet.

We located our target, noting that the *Lutzow* was still in the same position as when last reported. Only one run was required and we then set course for Copenhagen.

As soon as we crossed the coast we passed over a 10/10 layer of strato cumulus that stretched as far as we could see. This persisted until we reached our E.T.A. Copenhagen, and as there was not a gap to be seen, we set course 259° M. for base.

The cloud began to break up at the Danish western coast and the sea was totally clear.

Heligoland appeared on our port quarter. So, deciding to do a run over it, we took one last look around and altered course 20° port.

At that instant I saw two bursts of cannon fire appear low and ahead of starboard wing tip. Shouting a warning to my navigator I went into a steep turn to port, at the same time opening to 2,850 revs. and full boost. My navigator warned me that an enemy aircraft, apparently an FW.190, was 500 yards behind and turning in for another attack. I altered steep turn to starboard. It was then observed that the enemy aircraft was an Me.163. I then began a series of steep turns 180° in arc turning through 270° so as to lead the enemy aircraft further out to sea. This action lasted for approximately seven minutes, during which time the enemy aircraft got in two more bursts of fire, both to starboard. We observed that the enemy aircraft made very little use of its rockets.

The enemy aircraft then changed its tactics and, diving down, pulled up to attack underneath. My navigator informed me just before the enemy aircraft opened fire and I put the aircraft into a sudden dive. The enemy followed and opened up a continuous burst of fire, which passed overhead, bursting 100 yards in front. I continued to push stick forward until, at 13,000 feet the enemy broke away and turned north. Indicated speed was 480 and the aircraft was shuddering violently. There was a continuous trail coming from the trailing edges of both wings and extending from the root to the wing tip. I brought the aircraft back to straight and level solely by the trimmer and, as the enemy aircraft was not in sight, continued to fly at 2,850 revs. + 12 boost for five minutes. Engine instruments were normal, the only apparent results of the dive being the port boost capsule giving way.

The balance of the trip was flown at 10,000 feet and proved to be uneventful.

We landed at base at 1425 hours with ten minutes endurance remaining.

Air/Sea Rescue

During the Month of April, 50 Members of Aircrew were rescued by the Air/Sea Rescue Service

With the swift advance of the Allied armies into Germany, the massacre of the grounded Luftwaffe and the saturation of remaining targets, a marked decrease of activity was seen in the Air/Sea Rescue sphere. The patrols in support of day bombing operations were flown as usual but incidents became fewer, and the figures for "Not Yet Returned Believed Safe on the Continent" grew, as less and less of Europe remained in enemy hands.

Since the start of large scale day bombing and the organisation of air and surface rescue craft to support their return, the crews of ditched Fortresses and Liberators had formed the majority of men saved; now many of these aircraft when damaged can land on the continent, as a result the number of aircrew saved has fallen from 189 in April, 1944, to 50 last month.

On April 9, a Walrus on patrol saw a Fortress of 570 Squadron, 8th U.S.A.A.F. ditch fifteen miles off Harwich and homed an H.S.L. which

was four miles away at the time. The crew of nine boarded their dinghies and in a short time they were picked up by the H.S.L.

During the next day, 12 Group Flying Control reported that two fighter pilots of 91 Squadron were down in the sea just off the Dutch coast. Two Warwicks and a Catalina went over to see what could be done, and ten fighters also took part. At first the Catalina could not land because the two pilots in their "K" type dinghies, which were about a mile apart, were so close to land that they were in range of the shore batteries. **Warwick J.280** dropped a lifeboat to one pilot and a Lindholme set to the other, both very successfully, but the occupant of the lifeboat had difficulty in starting the engines. However, the tide carried both craft out to sea and eventually the Catalina was able to land near the lifeboat, rescue the pilot and then, under the directions of two Thunderbolts, taxi to the Lindholme and pick up the occupant. The aircraft flew home without further incident. (See plate 8.)

IV.—SPECIALIST AND GENERAL ARTICLES

The War against Enemy Shipping—October, 1944 to April, 1945

With the closure, in the early autumn of 1944, of the enemy's sea traffic in the Biscay and Channel areas, and the diminution of commercial traffic in the southern North Sea, it became possible to concentrate an attack on the enemy's last remaining, and therefore most important, traffic lanes. The past seven months have thus seen the most sustained and co-ordinated effort yet made against enemy shipping, directly aimed at the traffic which sails along the south-west coast of Norway in transit to and from Germany.

Norwegian Area

When this offensive started in the autumn of 1944, the enemy continuously employed about a million tons of merchant shipping in the Norwegian area. This was engaged in carrying from Norway to Germany supplies of certain commodities, such as iron ore, copper concentrates, pyrites, fish products and the like, which through the interdiction of other sources of supply had assumed an almost famine value to the enemy. From Germany were being transported supplies and materials to ensure that Norwegian industry and railways should continue working for the Axis, and above all that the occupying troops and base staffs should be adequately maintained and provisioned.

In the early autumn another task was imposed on the enemy shipping system in the Norwegian area, that of evacuating and transporting to Germany army divisions that had become redundant with the withdrawal from Finland. At the beginning of October it was estimated that the enemy had some eight of these divisions over and above his requirements for the defence of Norway, and it soon became evident that he was moving them towards Germany as fast as his railway and shipping capacity allowed.

The offensive in the Norwegian area had therefore to be planned from two aspects: (a) to interrupt the coastwise traffic that sailed all the way from northern Norway to Germany, which was accessible to medium-range aircraft as it passed along the coast of south-west Norway; and (b) to disrupt the shipping that sailed from ports in the Oslofjord area to Denmark *en route* for Germany. Included in the latter area was the valuable troop transport traffic which had been routed overland from the railhead at Mosjoen in north-western Norway in order to avoid the great risks attaching to coastwise traffic.

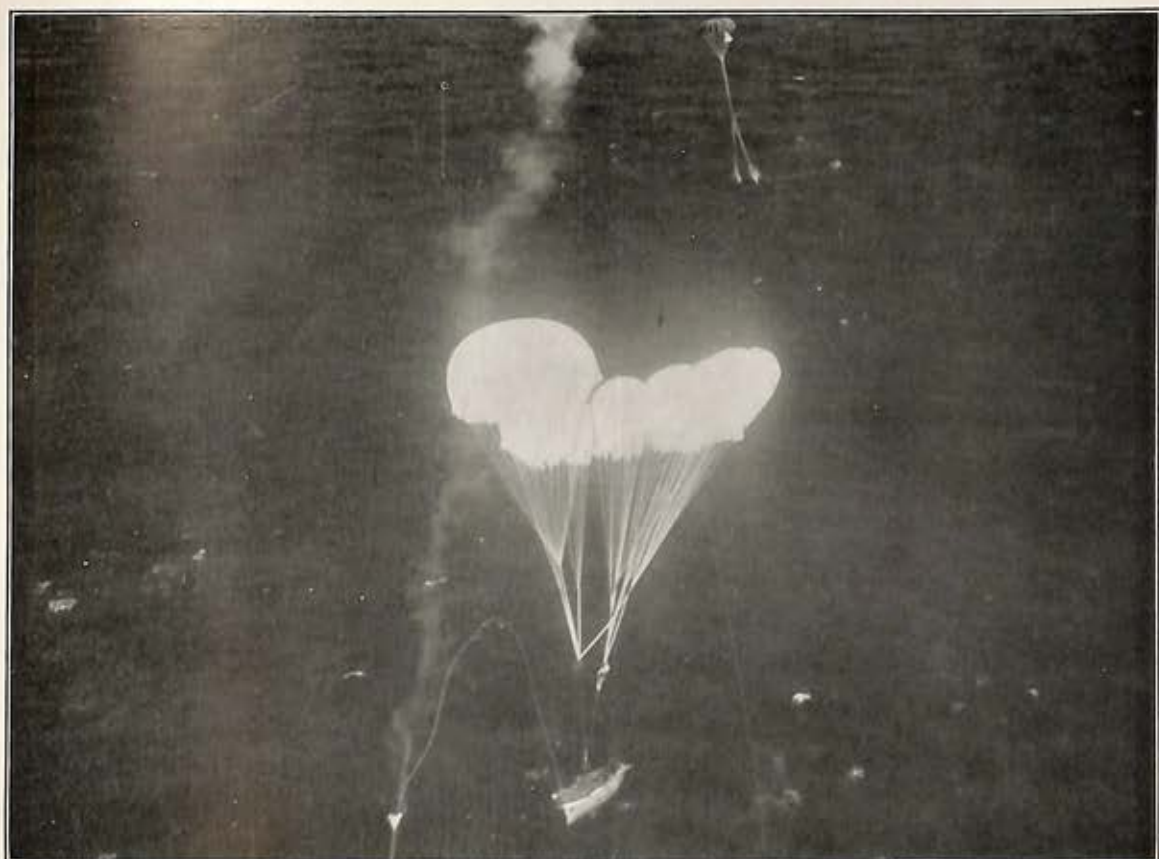
The disruption of the coastwise traffic presented many difficulties, of which a number had developed as a result of the activities of our own aircraft and submarines. Originally shipping in south-western Norwegian waters sailed only by day,

in order to avoid having to make the difficult passage through the Inner Leads in darkness, and during the night it became customary for them to anchor in certain fjords and protected anchorages. This offered our aircraft an opportunity for daytime attack while convoys rounded the open sea section of the route from Kristiansand South to Stavanger, or further north, as it emerged from the sheltered Inner Lead route for a short time off Stadtlandet.

The increasing pressure of aircraft attack during 1943 and early in 1944, and greatly improved tactics, resulted in a complete change of routine by the autumn of 1944. Day sailings no longer took place, the enemy having calculated that it was safer to lie up in protected anchorages during the day and confine movements to the night, when darkness would greatly hinder attacks on the open sections of the route, and almost entirely prevent them in the tortuous Inner Leads. However, the great flexibility bestowed on strike wings by the improving use of R.P., soon demonstrated that the protected anchorage in almost all cases belied its name, and the past six months have shown that it is only rarely that shipping can avoid attack through recourse to fjords, though it must be conceded that the multiplicity of such fjords makes the discovery of shipping much more difficult.

As a prelude to the offensive and in order to study the enemy's habits a long series of high-level photographic reconnaissance sorties was, and continues to be, flown, covering all fjords where it was considered shipping might hide. In addition many hundreds of low-level reconnaissance flights were made and much valuable information regarding enemy routine obtained.

As a result, a continuing and increasing pressure has been directed on the enemy's anchorages throughout the winter of 1944/45, with the Germans constantly changing their hiding places and our aircraft just as consistently discovering new ones. The enemy has tried hard to meet this situation by selecting remote fjords, by anchoring still further up them, and finally by tying up right under steep cliffs, but the Mosquitos and Beaufighters of the Banff and Dallachy Wings have succeeded, for the greater part, in overcoming these obstacles, and the increasing delay caused to enemy routine has more than made up for the comparatively few occasions when it is not proved possible, for topographical reasons, to make an attack. Illustrations in recent numbers of the *Review* have amply demonstrated the difficult local conditions which have had to be overcome by the Banff and Dallachy Wings and the large measure of success achieved.



In these photographs the rescue of the crew of an American Catalina on April 3, is shown. The account appeared in last month's issue of the *Coastal Command Review*. In the top photograph, as the airborne lifeboat falls the pilot chute can be seen clearing. In the lower left-hand corner of the picture the bow rocket has just fired and is taking the sea-anchor with it. The bottom photograph shows the crew in the airborne lifeboat.



PLATE 8

These photographs show the rescue of two fighter pilots on April 9, off the Dutch coast (see Letterpress page 15)



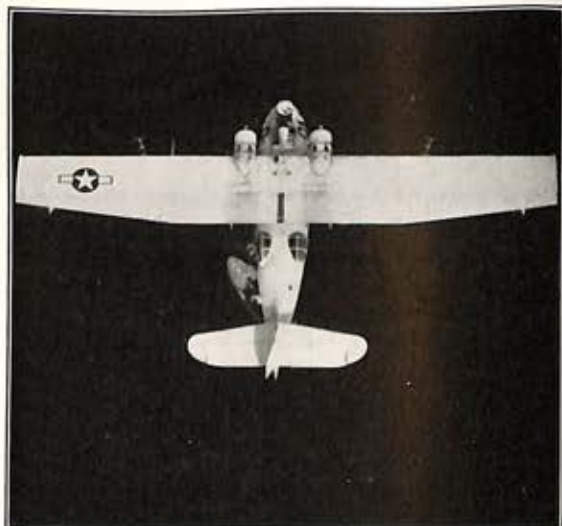
One of the pilots can be seen on board a Lindholme dinghy.



An airborne lifeboat being dropped to the other pilot.



The lifeboat after it has become seaborne.



The Catalina which made the rescue.



The Catalina taxiing towards the lifeboat.

The tangible results of the daylight attacks by the Banff and Dallachy Wings have been 75,338 tons of shipping sunk, 28,796 tons seriously damaged, 71,152 tons damaged, on the route and in the anchorages between Oslofjord and Kristiansund N. In addition 51 Escort vessels were sunk or damaged. Less visible but equally important have been the increasing delays. The constant need to betaking evasive action, to be anchoring in the more remote fjords, and the need to penetrate still deeper into them has added greatly to the turn-round times of voyages, so that the rate of annual lift by the shipping employed is now reliably estimated to be less than half that of a year ago. That the enemy can barely carry out half his intended programme is a considerable achievement on the part of the forces employed, which, it must be remembered, include not only Beaufighters and Mosquitos of Coastal Command, but also units from the Home Fleet which have made a number of successful sweeps, not to mention our own submarines and M.T.B.s.

Norway-Denmark Traffic

Further south, in the Skagerrak and Kattegat the war against the enemy's shipping has been waged mainly at night. This was aimed primarily at the traffic sailing between the Oslofjord area and Denmark, which, as stated earlier, includes most of the trooping movements. In the Kattegat also is found the traffic which has safely rounded the dangerous waters of south-western Norway, and which is on the last lap of the route to German ports. It is an area therefore in which there is no shortage of targets. Distance in fact is the main limiting factor.

Until the range of the Banff Mosquito Wing was increased by the use of 100-gallon drop tanks, the Halifaxes of 58 and 502 Squadrons carried on this war against the enemy's troopers, and they must be credited with a success that began slowly but which has now assumed the most menacing proportions.

In October, 1944, the enemy was employing some 50,000 tons of medium and large ships solely to withdraw troops from Norway. With this tonnage, it was estimated that he could move a division every fortnight. In the beginning it is probable that he achieved this figure, but gradually delays and casualties caused by mining, and later the increasing casualties caused by the Halifaxes have substantially reduced this lift, and even the small tonnage that he still employs in this traffic is being much embarrassed by the deductions caused by our aircraft attacks.

In these seven months Nos. 58 and 502 Squadrons have been credited with 26,104 tons of shipping sunk, 35,523 tons seriously damaged, and 66,629 tons damaged, most of this success having occurred in the later part of the period. Included in these figures are those of several transports. For instance, the *Isar*, 9,026 tons with 1,500 service personnel on board, suffered two bomb hits early in March, and was set on fire. Nearly 100 dead and many wounded were put ashore at Moss, also, it is learned, a number of dead horses! The *Rolandseck*, 1,845 tons, was sunk about a week later, when southbound with troops on board, while in April the *Feodosia*, 3,075 tons, which had just started service as a transport, and the *Hansa I*, 1,923 tons, another

transport, were sunk. A rapidly increasing number of other ships carrying general and specialised cargoes has also been sunk and damaged during the same period, and many very promising claims still await final assessment.

In March, the Banff Wing was able to penetrate the Kattegat, and to the night offensive against shipping in this area were added day sweeps. The first of these almost disposed of an entire southbound convoy of Tank Landing Craft, a type of vessel much used by the enemy for the carriage of war material.

In short, in the course of a few months the area of the Skagerrak and Kattegat has become one of the most dangerous of those through which the enemy must sail his ships, and the increasing dislocation to the traffic between Germany and Norway augurs well for us should he decide to make a last stand in the Northern Redoubt.

Southern North Sea Area

It must not, however, be thought that the war against enemy shipping in the past six months has been confined only to the Norwegian area. While, in that area, it has been entirely offensive in character, a considerable effort mainly of a defensive nature has been waged elsewhere, in the southern North Sea, by aircraft of No. 16 Group.

Sustained commercial traffic in the latter area has long been confined to the short route between the Elbe Mouth and the Weser/Jade Estuary. Since this traffic travels entirely by night in a hotly defended area, it has had, regrettably, to be neglected by our strike squadrons. An occasional merchant ship convoy has passed from Emden to the Elbe, but the volume of traffic has been so slight that even approximate prediction of its movement has been impossible. Another intermittent traffic has been the evacuation of a number of partly built ships, usually of the *Hansa* emergency programme, from the port and shipyards of Rotterdam to German harbours where, no doubt, the enemy had hoped to complete them.

It can be understood, therefore, that accessible targets of the orthodox merchant ship type were not numerous in the area covered by 16 Group aircraft, but other targets of a different sort were available, against which a considerable effort has been expended.

With the evacuation of the Channel ports, the enemy withdrew all his serviceable E-Boats to Dutch ports, and from there until the last few weeks has maintained a continuous offensive against our convoy routes. It is estimated that an average of rather more than forty E-Boats has continuously been based on IJmuiden, Amsterdam, Rotterdam and Den Helder. Their operations have been entirely at night, and have been confined to our own coastal shipping routes, with torpedoes or mines as the weapons.

Patrols directed against the E-Boat menace have been flown mainly by Wellingtons of Nos. 524 and 612 Squadrons on every night when weather permitted, or was of a type that suggested the likelihood of E-Boat operations. Innumerable attacks have been made, and while subsequent information is always scanty in this area, it is

certain that worthwhile damage has been inflicted. However, quite apart from the deterrent effect of direct aircraft attack, our night patrols have provided valuable aid to the surface forces engaged, and on many occasions E-Boat flotillas have been shadowed with success and considerable warning of their approach given to convoy escorts and hunting groups.

Recently aircraft of 16 Group have been engaged against some of the enemy's more curious weapons, in the form of the various components of the Small Battle Units Command. This Command comprises one man torpedoes ("Marder"), one-man U-Boats ("Biber" and "Molch"), and two-man U-Boats ("Seehund"). With the exception of the Seehund all have a very limited range of action, and together with their crews are considered by the Germans as expendable stores. They can operate with torpedoes or on minelaying sorties, though the former is more usual. It is the number of these weapons available rather than their individual capabilities that has made the Small Battle Units Command a serious threat to our shipping.

"Marders" soon appear to have been discarded, and "Bibers," owing to their restricted range have only operated off the approaches to the Scheldt, and along the Belgian coast. "Seehund," however, have penetrated as far as the East Anglian coast, and in the Thames estuary.

All these craft when discovered are very vulnerable to aircraft attack, but owing to their small silhouettes are not easily located, particularly in more than a slight sea. To neutralise their activities a considerable flying effort has been made by Beaufighters of Nos. 236 and 254 Squadrons, and Swordfish of 119 Squadron. The available evidence suggests that considerable success has been achieved by aircraft attack. To this may be added the unrelenting watchfulness of surface patrols and the inherent unreliability of these particular forms of craft, so that on the whole the menace has been neutralised. Nevertheless, by sheer pressure of numbers the enemy has achieved some success against our shipping, and continuing watchfulness against the units and their suicide crews must continue until the whole of the enemy seaboard has been captured.

Conclusion

From the foregoing it can be judged that the past seven months have been outstanding in the war against enemy shipping. In the Norwegian area a considerable strategic success has been achieved, while in the southern North Sea a heavy and continuing attack on our shipping has been neutralised. Aircraft have thus made an exceptional contribution to the final chapters of the blockade and counter-blockade in Europe.

Is your Accident really Necessary?

It is perhaps significant that man's first historic attempt to fly was crowned with disaster owing to Icarus' failure to obey his father's orders not to fly too close to the sun. The tendency to disobey orders in matters aeronautical has unfortunately persisted right down to the present day.

Articles on this subject are written in the hope of making aircrews more Accident Conscious and thus reducing the rate at which aircraft are written off through sheer stupidity and carelessness. A little extra care on everyone's part may in some cases prevent disaster.

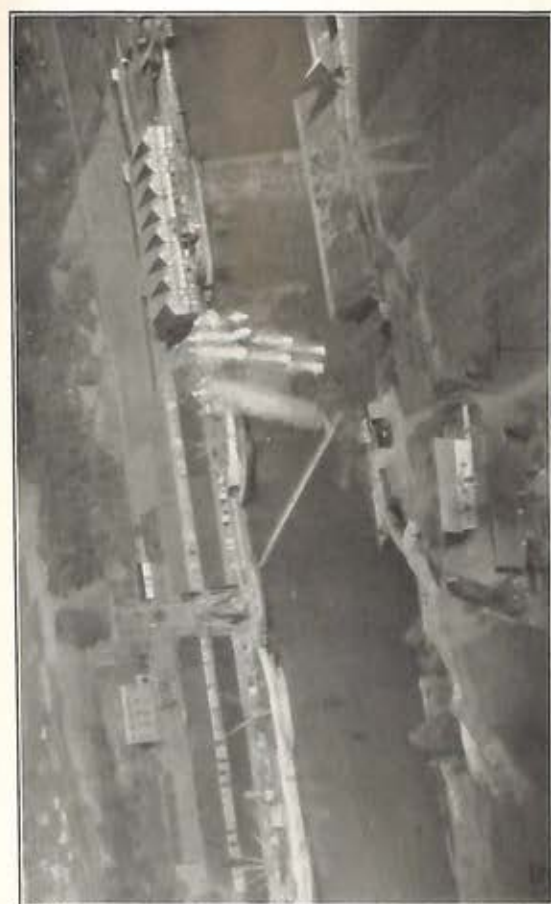
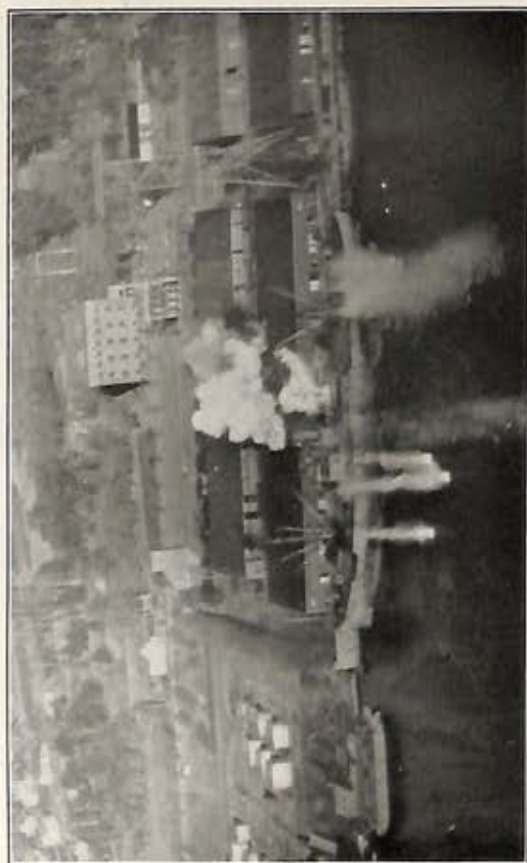
The importance of a sound early training cannot be over-emphasised. If a pilot has assimilated most of the knowledge imparted to him during the early stages of his training, he can feel comparatively confident of his chances of survival during O.T.U. and Operational flying. The main lessons which he should have learnt are to fly his aircraft in the role for which it is intended, to pay due attention to orders and to Pilots' Notes, and to appreciate the value of an efficient Flying Control.

In order to obey instructions one must first understand them. How many pilots are well acquainted with Standing Station Orders, Training Instructions and Pilots' Notes? Much of the information contained in these is included in

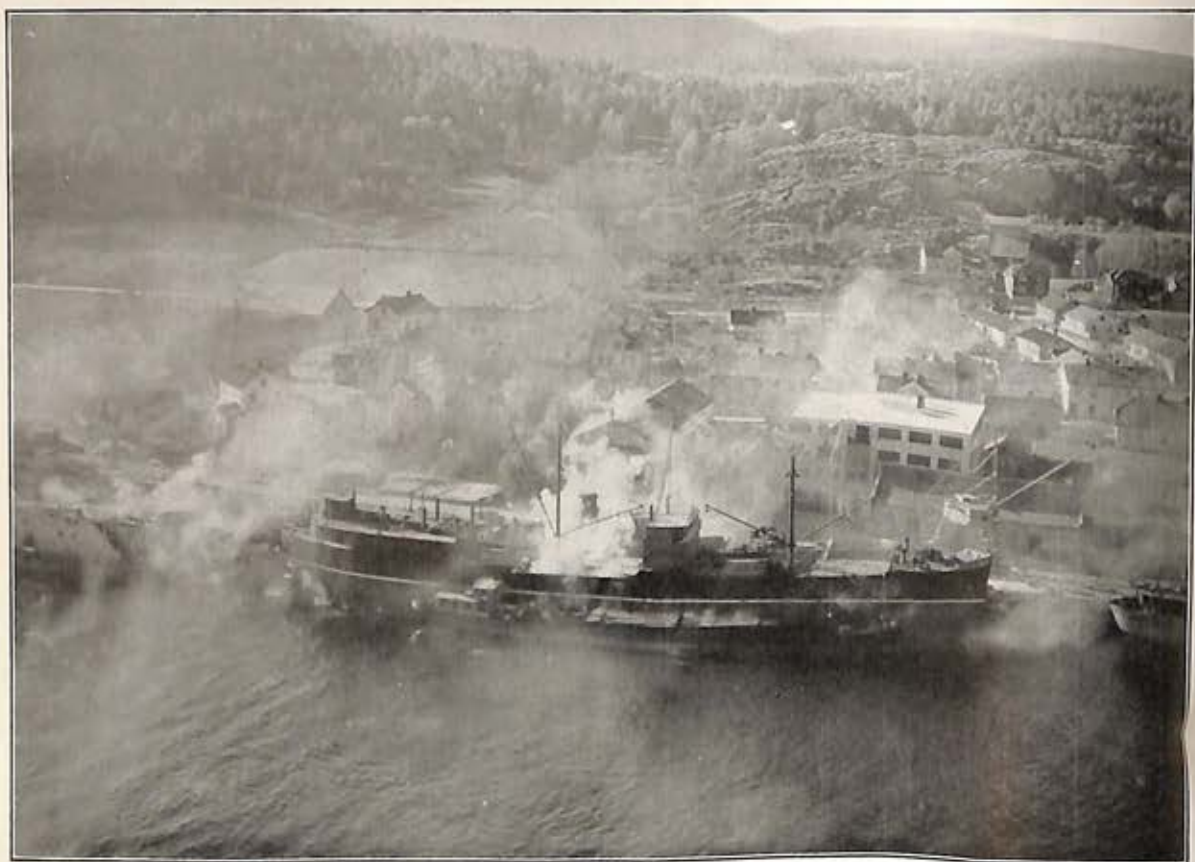
the Squadron Pilots' Order Book, but they themselves should be read in detail.

A distressing number of accidents have occurred recently through disobedience due partly to ignorance but more frequently to lack of discipline. The following example should be a lesson to those who think they know better than the authorities.

Certain squadrons are provided with Oxford aircraft so that the second pilots may have an occasional opportunity of practising circuits and landings. A flight commander proceeding on leave from a station in the north decided to make use of the squadron's Oxford, and arranged to take three other officers (also proceeding on leave), with him to London. A spare pilot was taken to return the aircraft; thus the machine, already carrying full Marconi equipment, was overloaded not only with the personal luggage of the four officers but also with one extra body. In addition, their eagerness to begin their leave led them to ignore the meteorologists' warning. The trip was not properly authorised and Flying Control, although consulted, were not advised of the proposed route. Obviously the flight entailed crossing a fairly wide stretch of sea, yet neither dinghy nor Mae Wests were carried. What chance would this party have of survival if forced to ditch? The aircraft disappeared without trace.



On March 30, the Banff Wing attacked four small merchant vessels lying alongside in the Skien river at Porsgrunn. Although the Mosquitos were prevented from flying very low by the high-tension cables carried on the pylons seen in the photographs, nevertheless a most successful attack was made.



On April 11, the Banff Wing returned to Porsgrunn and again struck at enemy shipping lying in the Skien river. This time a number of small merchant vessels and other vessels were attacked while lying under construction or repair at the shipyard. Four vessels were sunk and a further three were damaged. The damaged vessels included two 2,000-ton merchant vessels under construction, one of which is seen on fire in the upper photograph (see Letterpress page 13).



Clearly no senior officer should have misused his authority in this manner, but the Duty Flying Control Officer should have shown more initiative by requesting the station commander to cancel the trip, being well aware of the circumstances.

This is by no means an isolated case; at least two of the accidents which have occurred during the past few months could probably have been avoided if the person or persons responsible for the loading of the aircraft had paid a little more attention to their duties.

The proportion of the losses due to non-operational causes is still very high in comparison with losses due to enemy action. Bad landings, careless cockpit drill, faulty navigation, flying below safety height, and many other evidences of

bad discipline all combine to increase the toll of lives and aircraft.

The secret of safe flying is to be found in one word, co-operation. Not only with members of one's own particular crew, but with everybody, however remotely concerned, from the factory workers to the aircraftman who removes the chocks before take-off. Squadron and flight commanders can do much towards reducing the number of unnecessary accidents; see that crews know their aircraft thoroughly; anticipate their problems by giving instances from your own or other people's flying careers; finally, if you can convince your squadron personnel that no accident is really necessary, you will save yourselves and everybody else a considerable amount of worry and work.

"Molch" One-Man U-Boat

The following is an account given by prisoners of war of seven Molche which operated from San Remo against ships in Nice Bay on the night of 25/26 September, 1944. At least three of them were sunk.

This was the first Molch operation of the war and was unsuccessful. Survivors were ill-informed and knew nothing of future operations, except that the rest of the flotilla were believed to have been sent to the Adriatic.

A Molch was sunk off Walcheren on February 22 and one prisoner taken. She is thought to have been the first to have operated outside the Mediterranean.

The Molch is a one-man U-Boat and is believed to have the following general characteristics:—

- (a) Length: 36–39 feet.
- (b) Armament: Two torpedoes.
- (c) Propulsion: Electric.
- (d) Endurance: Probably 30–40 hours and 150–200 miles.
- (e) Speed: Two speeds giving 4 to 6 knots respectively surfaced and possibly half a knot more submerged.

On September 6 members of the 1st Molch Flotilla assembled on the station at Gettorf, near Surendorf, where a special train was waiting to take them to Italy. The party consisted of the Flotilla S.O., the Flotilla engineer, about 30 sea-going personnel and some 200 shore staff. They proceeded via Kiel, Hamburg, Hanover and the outskirts of Munich to the Brenner, where an attack on the line delayed the train for three days. The train finally halted in the freight yards at Capo di David, outside Verona. The party was obliged to remain here for a week awaiting petrol for the motor transport. At Capo di David the Flotilla divided into two groups, the larger left the train first, and prisoners thought that it was going to the Adriatic. The other group continued the journey by omnibus accompanied by a field kitchen, an A.A. lorry and about 120 shore personnel in lorries. It was thought that the "Molche" were also in the lorries. Owing to the danger of air attack, the party moved mostly by night. After a short halt at Genoa they travelled along the coast to San Remo and arrived there during the night of September 24. They were quartered in a hotel up the hill from the coast.

Operational Orders

On September 25 the S.O. advised his party that they were to go into action that night. He told them it would be the first Molch operation and he had high hope of success. Seven craft were to be used and each man was given individual

instructions on courses to steer, the targets to attack and the time to return. Deviation tables for each Molch and small pencil sketches of the section of the coast off which they were to operate, were issued. The S.O. took the men along the coast as far as Ventimiglia to give them an idea of its appearance. The primary targets were two destroyers, but they were only to be attacked if stopped or proceeding very slow. One prisoner stated that the secondary target was any shipping in Nice Bay, whilst another said it was an "M.G.B. depot ship lying in Villifranche Bay."

Patrol and Sinking of Molehe M 50 and M 58

Molch M50 sailed at about 2230 hours, proceeded for three hours at three quarter speed and then dead slow until 0600 hours maintaining a depth of 16 feet throughout. By dawn, she was just within sight of the coast. The coxswain cruised around for some time, at intervals coming to periscope depth in search of shipping. Without having sighted any ships he suddenly heard about 10 depth charges exploding comparatively near and dived to 66 feet where he circled for a while before rising once more to 33 feet. About half an hour later he heard another series of six to eight depth charges, came to periscope depth and sighted a shadow at which he fired his port torpedo. The torpedo missed and soon afterwards, when another and much closer depth charge attack followed, the coxswain went to 98–118 feet. The steering gear was damaged

and the boat got out of control: the starboard torpedo broke away aft and hanging from the bows made the boat bow heavy. When at 98 feet water entered through the cupola and the coxswain blew all tanks. For some time *M 50* failed to surface and water rose in the Central Room as far as the coxswain's chest. She rose gradually however, and at 16 feet the pilot fitted his escape apparatus, pulled the cord of the scuttling charge and abandoned ship.

M 58 sailed an hour later and proceeded dead slow (four knots) for one-and-a-half hours with the periscope visible. The coxswain then took her to 16 feet and maintained the same speed until 0300 hours, when he increased the speed to seven knots. At 0400 hours he arrived in his operational area off Nice, some four or five miles south-west of Cap Ferrat, having steered 230° throughout. He took his boat down to 39 feet and circled slowly round. Shortly before 0615 hours it became evident that the boat was bow heavy and the coxswain was unable to trim her. At 0615

hours he came to periscope depth, and was almost immediately sighted by an aircraft which dropped a number of smoke floats near him. Destroyers soon approached and made contact; the coxswain believing that depth charges would be set much deeper, decided that it would be safer to remain at 16 feet. Eighteen to 20 depth charges were dropped shortly afterwards, but all exploded beneath him. Two more series followed and the last depth charge to explode caused a water entry on the port side before the Control Room. The *Molch* became stern heavy and after setting the scuttling charges, the coxswain opened the cupola and abandoned ship at 0845 hours.

The coxswains of both these *Molche* and of *M 54* were picked up. One survivor by *F.S. Forbin* and two by *U.S.S. Madison*. *F.S. Forbin* obtained asdic contact after sighting a conning tower and dropped depth charges at 0755 hours on September 26, probably sinking two *Molche*. A torpedo was fired at *U.S.S. Madison* which passed within 50 yards of her.

In Search of Advanced Bases: Red Sea, 1942

Shortly after 8 a.m. on a September morning I was standing on the flying boat quay at Aden watching a Catalina lumbering gracefully round the circuit preparatory to landing.

I was interested in the Catalina partly because it was one of a flight of three in my charge, and partly because it had just returned from an 18-hour sortie, of which nearly 12 hours had been spent getting to and from the convoy it had been escorting.

The three Catalinas, made up from 240 and 413 Squadrons, had been hurriedly dispatched from India and Ceylon to help deal with a U-Boat threat which had suddenly arisen in the Red Sea. We had only arrived a few days before, and it was becoming apparent to me that three aircraft would be quite unable to deal effectively with the volume of work if, out of every sortie to our main operational area (Socotra-Cape Guardafui), we were going to spend 70 per cent. of the time in transit.

Also we had administrative difficulties. Everything was widely dispersed and far beyond the reach of aircrew legs, and only one truck was allotted to us. Furthermore, although we had to be ready at short notice for a sortie throughout 24 hours, every other R.A.F. institution in Aden closed down between 12.30 p.m. and 6.30 p.m., including stores and armament sections. Finally, the small inner harbour had three unlighted ships anchored in its broadest reaches, so night landings (over a 10-foot unlighted wall towards 400-foot wireless masts and alongside a home-made flare path), had to be avoided whenever possible.

I felt that we could greatly improve our efficiency if we could find an advanced base nearer to the mouth of the Red Sea; either on the south Arabian or Somaliland coast. We could then operate from the forward base and return to Aden for inspections and repairs, and for the removal of barnacles.

For the forward base idea to be really effective it would also be necessary to improve the night landing facilities at Aden, so that aircraft could return there direct from their sorties when due for inspections.

I decided to seek an interview with the S.A.S.O. at Headquarters, B.F., Aden. I found him most helpful and he agreed to ask Commodore, Aden, to co-operate in improving night flying facilities in the Inner Harbour. We also studied together very carefully, a map of the Red Sea with a view to finding an advanced flying boat base. Four places appeared promising, one was Merbat Bay situated about half way to Cape Guardafui and near Salalah aerodrome. Another was Masira Island at the eastern tip of Arabia. A third was Khor Jerama, a small and almost land locked lake some 110 miles NNW. of Masira Island. It was in this lake that Alexander the Great's fleet anchored during his great drive through Persia to India. Finally, there was Hordio, a large shallow bay with access to the sea through a narrow reef, which lay about 100 miles south of Cape Guardafui on the NE. African coast.

The S.A.S.O. gave me permission to reconnoitre Hordio and Merbat Bay. I decided to begin with Hordio and made my plans accordingly. First I had to obtain an interpreter, because in all the projected visits we were most unlikely to encounter anyone who spoke English. Talking was really quite important because such matters as local sea conditions, water and food supplies, supplies of boats, and location of rocks or reefs, played a vital part in the consideration of any place as an advanced flying boat base. For an interpreter I was allotted a Moslem gentleman known as Mosjan, of mixed Arab-Somali descent. I was to see quite a great deal of Mosjan in the near future, and he never failed to astonish me. His flying "equipment" consisted of a small length of carpet and a dirty handkerchief full of rice and miscellaneous personal objects. He also possessed a turban and the remarkable

attribute of being "a stranger in these parts" wherever we landed, either in Arabia or Somaliland. However, he made an inspiring sight in the blister. We also took with us the Aden Intelligence Officer, a complete survey set for my surveyor co-pilot, a camera and a lead line. All was now ready, except for a detailed study of the landing area at Hordio. As far as we knew no one had ever landed there, and the latest chart was dated 1824. On this the depth of water was given as varying from one to one and a half fathoms in most places, but there were also tempting runs of three miles or so where the depth was apparently two to three fathoms, in any event we decided to arrive at high tide. We took off on the appointed day, fully equipped with rubber dinghies, rations and sleeping bags.

As soon as we rounded Cape Guardafui the wind freshened to about 25 knots, and on arrival at Hordio we found that visibility was somewhat impaired due to sand being blown up by the wind. The surface of the water was surprisingly rough considering its reputed depth, and due to its clarity, rocks and reefs were visible everywhere. Across the bay was a small township called Dante. This was encouraging as there was probably water and billets obtainable there. In every respect, except perhaps the depth, Hordio looked promising. Protected on one side by the African Coast, the lagoon was sheltered from the sea by a long semicircular strip of land bending round in a wide arc ending in a small reef-strewn gap leading into the sheltered waters.

Seen from the air, there were at least two runways of three miles or more, and, even in the 25-knot wind, landing appeared to be quite feasible. Accordingly we picked a strip which appeared free of rocks or shoals and came in to a fully stalled landing. My co-pilot then went into the front turret, and, while I held the aircraft stationary against the strong wind, he took a sounding with our lead line. "Four and a half feet," he shouted. I thought, "There's no future in this," and sent for Mosjan. Mosjan had indicated that he knew Hordio, so the time had come to question him. He came forward looking very apprehensive. "Which way deeper water: here 4½ feet?" I asked. "Sahib going this way better," said Mosjan pointing to starboard. So I sailed off to starboard. The depth remained the same for about 100 yards, and then somewhat agitatedly my co-pilot announced "Four feet," and at the same time a few shoals became visible in the clear water. "Drop anchor" I shouted and switched off. Mosjan was tut-tutting and shrugging his shoulders, and soon discreetly retired to the blister. I decided that it was unsafe to turn round in this wind as our turning circle would be so wide we should probably run on to some hitherto unknown shoal. Accordingly, I decided to sail backwards over the water we had already negotiated, and then try to make as swift a take-off as possible straight ahead, dropping our depth charges at the crucial moment to speed our take-off from the rough water. This plan worked and we were off in fifteen seconds, being lightly loaded. On our return to Aden we pronounced Hordio as "unlikely to make an efficient advanced base." If the depth was only four and a half feet at high tide, I tremble to think what it was at low tide.

The next reconnaissance was of Merbat Bay, about twelve miles east of Salalah aerodrome. Preparations, crew and passengers were the same as for Hordio, including Mosjan, whose hitherto untried skill in dialects was thought to make him eligible for the trip. One unfortunate addition was a frame sight for the camera, specially designed by the photographic section to take a mosaic of the bay and to exclude everything not viewed through the frame sight.

On arrival at Merbat Bay, which faces west south west, we found a 20-knot south-westerly wind blowing straight in, and a heavy swell in the alighting area. We thereupon abandoned Merbat Bay and proceeded some 18 miles west to try Bander Risut which was an alternative, and which faced due east with a protecting arm of land against the swell outside. No rocks were visible, but a fairly hefty swell was running towards the shore. The wind direction was fortunately along the swell, so we came into land about 500 yards off the shore and parallel to it. We made a good landing and dropped anchor, taxying up wind till we were in the lee of the narrow arm of land protecting the windward part of the bay. The swell soon made the anchor begin to snatch, so we inflated the rubber dinghy and went ashore to fill a parachute bag with shingle. We used this, secured firmly halfway down the anchor cable, to dampen the shock of the anchor snatch when the swell suddenly raised the nose of the aircraft.

There was no sign of life on shore and as we seemed perfectly secure we decided to spend the night and make a thorough survey of the bay in the morning. At dusk we had a great surprise, a corvette steamed in and proceeded to anchor fairly near to us and to call us up with its signalling projector. They offered to sleep some of the crew and sent a launch to pick us up. I detailed four of the crew to sleep on board the Corvete and my co-pilot and I accompanied them in the launch. The corvette was apparently on Red Sea patrol and was intrigued to find a Catalina anchored in the bay, so it had come to investigate. The Commander and his officers were most hospitable and we were sorry to leave them. When we got back to the Catalina we all settled down for the night in our sleeping bags and cushions on the mainplane. I used the engine nacelles as a back rest, but some of the crew preferred the bunks inside. In the morning my co-pilot and two others from the crew set off in the rubber dinghy with their plane table and surveyors' instruments, and I began taking a photographic mosaic of the bay. Unfortunately, although I carefully excluded from my framesight all the various toilet and cooking utensils which were lying about in different parts of the boat, they nevertheless ultimately featured prominently in the finished mosaic. The rest of the morning was spent in bathing, taking soundings and exploring the shore for water wells. The results were good and we discovered no major obstacles.

Soon after lunch the officer commanding R.A.F. Station, Salalah, visited us. He arrived in a canoe and suggested we should return to the station with him. Accordingly my navigator and I went ashore in the rubber dinghy and the native canoe and drove along a very bad road to the station, which was some twelve miles

away. The commanding officer explained that the Sultan of Muscat held autocratic sway over all the country through which we were passing. Hardly had we arrived at the station when we received a visit from one of the Sultan's political agents.

He spoke English, which was fortunate, as Mosjan, who accompanied us, did not 'happen' to know the particular dialect he spoke. He was much concerned at my presence in Bander Risut and also asked why the corvette was there. I told him that we were on reconnaissance from Aden for flying boat bases, and assumed that we could land anywhere. He countered this viewpoint somewhat forcefully, and pointed out that the Sultan exacted large numbers of Maria Theresa dollars from His Majesty's Government, and much delighted in doing so, whenever warships, etc., infringed his territorial waters. The Sultan was, I understood, a neutral in the war, but if this was so I fail to

see how he explained away R.A.F. Station Salalah, to enemy investigators. I assured him I would take the matter up when I returned to Aden and eventually I managed to get rid of him. Before leaving I made arrangements with the commanding officer that he would have 450 gallons of petrol transported to the beach in drums, these would then be mounted on a native barge which would be anchored in the Bay against our return journey. It was the intention to try out a system of refuelling from this barge using hand pumps.

In the evening we returned to the shore and went back on board. That night our Naval hosts paid us a return visit and we managed to organise an excellent dinner for them. The next morning we took off on our return journey to Aden, satisfied with our expedition and convinced that Bander Risut, provided certain measures were taken, would make an admirable advanced flying boat base.

POPEYE USES HIS SCHNÖRKL



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