

DECLASSIFIED

# Mare Nostrum



AIR HISTORICAL BRANCH  
II 5/99  
AIR MINISTRY  
Inter of 5/10

A REVIEW OF  
**M.A.C.A.F. OPERATIONS**  
MARCH 1943 - SEPTEMBER 1944

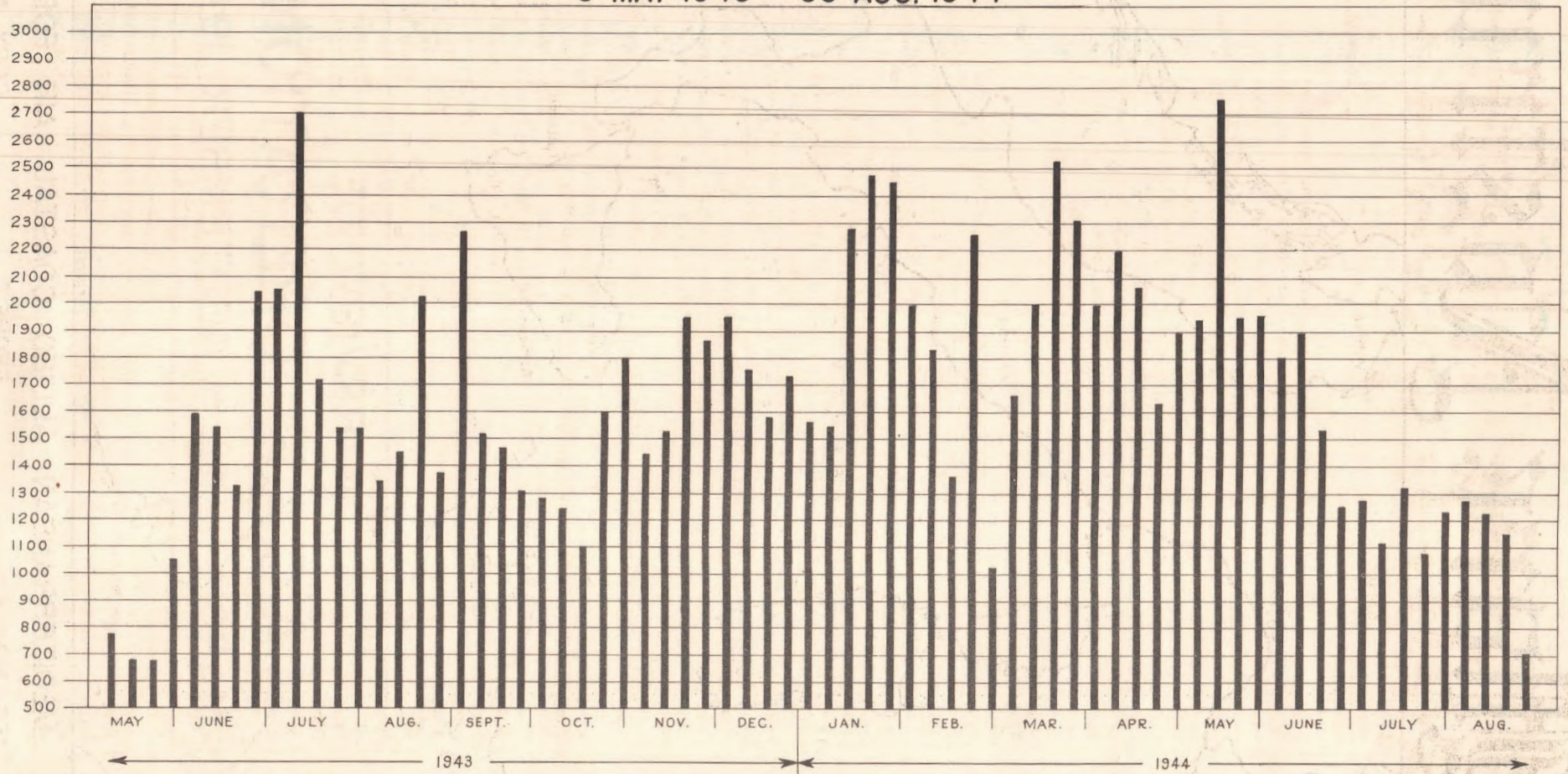
MEDITERRANEAN ALLIED COASTAL AIR FORCE  
REG. NO. 749      SECRET      COPY NO. 377

DECLASSIFIED

# TOTAL M.A.C.A.F. SORTIES

(WEEK BY WEEK)

6 MAY 1943 — 30 AUG. 1944



# Mare Nostrum

NUMBER FIFTY-TWO

14 September 1944.

THIS FINAL NUMBER of "Mare Nostrum" is devoted to a review of the operations of the Mediterranean Allied Coastal Air Force during the period March 1943 to September 1944. It is to be made available to officers, aircrews and radar operators. No information contained in this document is to be divulged to any person except in the course of duty. No reproduction either in whole or in part will be made without permission from S.I.O., M.A.C.A.F.

## GENERAL

Since March 1943 when the Allied Command formed the Northwest African Coastal Air Force to take over the functions of the RAF Eastern Air Command and the USAAF XII Fighter Command, this force (re-named Mediterranean Allied Coastal Air Force 1 Jan 1944) has carried out a varied air-defense and air-offense role, throughout the Mediterranean.

Its theater of operation, at the beginning, stretched from Casablanca to within fifty miles of the Tunisian front, and at the first of September 1944, it covered the Northwest African coast as far East as Tripoli and embraced all other Allied-held territories in the Western Mediterranean to within fifty miles of the Italian front. Its tactical force at the outset consisted of 18 Squadrons. At the peak of its operations in January

1944, 56 Squadrons (30 of the RAF, 16 of the USAAF and 10 of the FAF) were under its command. The stations of these tactical units, and the command posts, fighter control sectors and headquarters and air warning radar stations of MACAF dotted the shores of the Western Mediterranean basin from Spanish Morocco to Tripoli. They were located all along the Northwest African coast. They were situated along the coastline of Allied-held Italy from below Rimini around the boot to just below Pisa, throughout Corsica and Sardinia...and the farthest outpost operated on the Adriatic island of Vis in the midst of the Nazi-held Dalmations.

Control of the immense areas involved, in the final period, was exercised through five main geographical divisions: (a) 210 Group RAF covered the Northwest African coast through sectors at Oran, Algiers, Djidjelli and Bone, employing RAF and FAF squadrons and utilizing British and American radar

MACAF STRENGTH (IN SQUADRONS)  
APRIL 1943 TO SEPTEMBER 1944.

Month	RAF-SAAF- RAAF Sqdns	USAAF Sqdns	FAF Sqdns	Total Sqdns
1943				
Apr.	11	7	0	18
May	13	9	3	25
June	23	9	3	35
July	24	11	3	38
Aug.	23	13	5	41
Sept.	23	14	8	45
Oct.	25	14	8	47
Nov.	20	16	10	46
Dec.	20	16	10	46
1944				
Jan.	30	16	10	56
Feb.	28	18	10	56
Mar.	28	16	10	54
Apr.	27	16	10	53
May	26	13	10	49
June	29	7	10	46
July	25	7	9	41
Aug.	18	7	8	33

equipment and personnel. (b) AHQ Malta covered Malta and Sicily through two sector headquarters. (c) 242 Group RAF covered the Adriatic through sectors at Taranto, Foggia, Ancona and the Island of Vis. (d) 62nd Fighter Wing USAAF operated in Western Italy with sectors at Naples, Civitavecchia and Piombino. (e) 63rd Fighter Wing USAAF operated in Corsica and Sardinia with sectors at Alghero, Ajaccio and Borgo.

No air force ever has fulfilled more diverse functions with units dispersed over a wider area. Few, if any, forces have employed more types of aircraft. And even for an Allied force, the national constituents of the force were unusually varied.

The functions of the command have included the defense of Allied territory (including ports, airfields, cities and military installations); protection of Allied shipping in port and at sea against aircraft or U-Boat attack; the reconnaissance of enemy shipping and shore installations; the prosecution of an air war against enemy U-Boats and surface craft; the carrying out of an offensive campaign in the course of which its intruders have ranged over Axis-held Europe from Bordeaux to the Danube, while its day-fighters have struck at the enemy's land communications in coastal areas and given direct support to Allied ground forces; and, finally, the provision of air sea rescue facilities for all the Allied air forces of the Western Mediterranean theater.

These varied tasks have required aircraft of many types. Those employed have included Spitfires, Lightnings, Aircobras, Mustangs, Hurricanes, Thunderbolts, Warhawks, Beaufighters, Black Widows, Mosquitos, Wellingtons, Walrus, Baltimores, Hudsons, Warwicks, Venturas, Liberators, Fortresses, Marauders, Catalinas, Cants, Macchis, Albacores, Swordfish, Seafires, Bisleys, Halifax, Mitchells, Latecoeres and Sunderlands.

Included in MACAF there have been units of the USAAF, RAF, FAF, SAAF, RAAF and the Brazilian Air Force and of the Italian co-belligerent government.

These MACAF units have flown 121,780 sorties (to 1 September 1944) carrying out the varied responsibilities of the Command. Its day fighters have flown 92,734 sorties, its night fighters 10,985 sorties, its general reconnaissance aircraft 18,061 sorties.

Day fighters and night fighters, in giving protection to Allied shipping in convoy, have flown 103,719 sorties, escorting (from April 1943 to September 1944) 844 major convoys, comprising 12,801 ships, of which 19 have been sunk by enemy aircraft and 16 damaged, in 25 air attacks. All ship-losses to enemy aircraft, at sea and in port, totalled 46 ships sunk and 52 damaged.

Fighting the U-boat has required 12,335 sorties during which 72 air attacks have been made on U-Boats. Air and naval forces together, in carrying out the U-Boat war, have sunk 27 U-Boats and damaged 14, while the enemy's undersea craft sank 22 merchant vessels and damaged 16.

Defense of ports and harbors has kept MACAF fighters in the air day and night since March 1943. The fighters have dealt with 84 enemy raids in the course of which they have destroyed 73 enemy aircraft, probably destroyed two and damaged eight.

In offensive operations MACAF fighters and bombers have destroyed 266 vessels and damaged 620 craft of all kinds. They have knocked out 1,163 vehicles and damaged 1,255; destroyed 125 locomotives and damaged 173 and they have bombed and strafed ports, gunsites, supply dumps, military personnel, bridges, highways, marshalling yards and enemy camps and headquarters.

Allied forces carrying out six invasion operations have had MACAF escort against U-boats and aircraft, as well as other air support.

In Air Sea Rescue operations 6,856 sorties have been flown and 1,468 lives have been saved.

In air combat 466 enemy aircraft have been destroyed, 57 probably destroyed and 204 damaged. Squadrons of the USAAF destroyed 125, probably destroyed 31 and damaged 144. Squadrons of the FAF destroyed 42, probably destroyed 7 and damaged 15.

Air Vice Marshal Sir Hugh Pugh Lloyd has been the Air Officer Commanding MACAF from its formation. The first Deputy Air Officer Commanding was Brigadier General Elwood Quesada, USAAF; the second Brigadier General Gordon P. Saville and the third, Brigadier General Edward M. Morris.

Each phase of the operations carried out by MACAF from March 1943 to September 1944 is dealt with in the pages which follow. These brief summaries are limited to the barest outline of an amazingly varied history. They do not detail the thousands of acts of personal heroism nor describe the sacrifices and achievements of individuals which constitute the dramatic human-interest story of MACAF, which lies behind the bare account of victories won and accomplishments achieved.

The record, even unadorned by the narratives of personal achievement, nevertheless discloses the nature of the contribution which the Mediterranean Allied Coastal Air Force has made in transforming the once Axis-dominated Mediterranean into "Mare Nostrum".

## BLINDING THE ENEMY

One of the most exacting commitments of Mediterranean Allied Coastal Air Force was the prevention of enemy air reconnaissance of our shipping and harbors. This task, always important and inherently part of the general defensive role, became doubly so at the times when shipping was being concentrated in the ports prior to the various invasions.

In the early days, the enemy based his reconnaissance forces on Sardinia using mainly Ju-88s. Only Hurricanes, Spitfire Vs and P-39s were available to intercept them, but success was achieved. There were many instances in which these aircraft, inspite of their comparatively low performance, destroyed enemy reconnaissance aircraft only after the most determined chases often for a hundred miles or more out to sea.

This drove the enemy in the month of May to the use of Fw-190s and Me-109s fitted with long-range tanks and capable of great speeds at high altitude. We had not at that time the right types of aircraft to deal with this situation, although Spitfire IXs and P-38s had long been pressed for. The problem was acute in view of the forthcoming invasion of Sicily and the gathering mass of shipping in harbors.

By the beginning of June, two F-38s were attached to each United States P-39 Squadron and a few Spitfire IXs were attached to some R.A.F. Squadrons expressly for anti-reconnaissance work. It was not possible completely to deny the enemy a sight of what was going on, but our anti-reconnaissance aircraft achieved considerable successes and in the succeeding weeks the enemy lost a number of valuable reconnaissance crews and information.

After the invasion of Sicily and Italy and the withdrawal from Sardinia, the enemy was forced to rely more for reconnaissance on his Ju-88s based on South France and North Italy. These aircraft tended to carry out their reconnaissance by flying far out to the seaward side of the convoy routes, making interception difficult. Nevertheless they continued to be severely handled as were the single-engined aircraft which continued to operate from forward bases in Italy. During the months of August, September and October enemy reconnaissance aircraft destroyed included four Ju-88s, two Me-210s, seven Fw-190s and five Me-109s. Probably destroyed were a Ju-88 and three Fw 190s. Others were damaged in varying degrees.

By the end of October, the enemy's reconnaissance became more widely dispersed. He had much more to occupy his attention and was particularly anxious to find out where the next blow was to fall. Long-range aircraft from South France continued to watch the Northwest African shipping routes, with noticeable activity as each important convoy entered the Mediterranean. Corsica and Sardinia and Eastern Italy also came in for considerable attention.

The first week in December was outstanding for our successes against enemy recces. Three Me-109s, two Me-210s and two Ju-88s were destroyed.

From the beginning of 1944, enemy reconnaissance tended to concentrate more and more on Corsican and Sardinian ports and Southeast Italy. At the same time, regular reconnaissance flights by day and night were maintained off the North African shipping routes and these were always most active immediately preceding the attacks on our convoys which were prevalent in this period.

In the months of June, July and the beginning of August there was a considerable increase in enemy night reconnaissance. Single aircraft began coming over our ports at night dropping photo flares. Interception was made very difficult by the enemy aircraft flying at great speed and high altitude and by the use of radar counter-measures. Considerable attention was also paid at night to Corsica and Eastern Italy. The difficulties in these areas were the extreme low flying and violent evasive action employed by the enemy. Nevertheless, our night fighters gradually began to get the better of these tactics. During the two and a half months period, night fighters destroyed 11 Ju-88s and two Ju-188s and damaged a number of others under very difficult conditions.

One of the best tributes to our anti-reconnaissance forces comes from German prisoners of War who have stated that a reconnaissance of the Northwest African shipping routes was regarded as an extremely hazardous operation.

## THE BATTLE OF THE CONVOYS

The fall of Tunis on 12th May 1943 was virtually the end of land-warfare in North Africa, but it was just the beginning of one of the great air battles of the war—the fight for the skies over the Mediterranean ship lines, the re-opening of which became a possibility for the first time, when the Nazis gave up North Africa.

So long as the Luftwaffe was able to control the air above these ship routes, they remained closed to Allied convoys and our forces were denied incalculable savings in the time and space required to transport the material with which to conduct the war to every front. If the convoys could not be protected against air attack, the preponderance of Allied naval strength in the Mediterranean and the possession of one shore of the Mediterranean would not suffice. It was necessary to win the air battle to restore the life-line of Allied shipping.

The winning of this air battle became M.A.C.A.F.'s responsibility and ultimately its great achievement.



The Luftwaffe strike forces in North Africa escaped the fate of the enemy land forces and got away to Sicily and the Italian mainland. Here the anti-shipping units were reorganized and prepared to attack our convoys between Algiers in the West and the Malta Channel in the East.

By the end of May 1943, 242 Group was established at Bizerte with Fighter Sectors at Tunis and Sousse. Our fighter organization was ready for the coming struggle. It is significant that during the month of May two large Eastbound convoys were escorted through the Sicilian Narrows without loss or air attack. The probable explanation of this is that

DECLASSIFIED

the enemy had not yet had time to reorganise his forces after their hasty retreat from North Africa.

On the 26th June, the enemy made the first serious attempt to destroy an Eastbound convoy as it passed the tip of Cap Bon. Over 100 enemy aircraft were involved in the attack including Ju-88s, CZ 1007s and Fw-190 fighter-bombers. The attacks began in the afternoon and were continued into the night. No major damage was inflicted on any vessel and our protecting day and night fighters not only destroyed six enemy aircraft and damaged a number, but what was more important caused many of them to jettison their bombs before reaching the convoy.

From this time until the middle of August the enemy left our convoys alone and concentrated on attacks on harbours, with little result as shown later on.

The advance into Italy and the occupation of the Western Mediterranean Islands drove the enemy's ship-strike forces away from the chief danger area---the Sicilian Narrows - and virtually secured safe conduct for Allied shipping from the Western to the Central Mediterranean. The enemy retired to bases in the South of France where once more he set about organising and training for attacks on our shipping. With Corsica and Sardinia occupied by our fighters, it seemed evident that the enemy in the future would concentrate his attacks on our shipping between Gibraltar and Bone. For this reason it became necessary to organise fighter defence throughout the length of the Northwest African coast. From Oran to Tunisia, by day and night, fighters were spread out to meet the new threat.

On the 13th August came the first of the expected attacks from South France. About 40 He-111s and a small formation of Ju-88s carried out a dusk attack on a Westbound convoy between the coasts of North Africa and Spain, near Alboran Island. The convoy was at the time outside the range of day fighter protection. Two empty ships were hit but were later towed into Gibraltar. There was in the same area an important Eastbound convoy and it seems that it was this convoy which the enemy intended to attack, and he claimed to have done so in the subsequent extravagant radio broadcast of his successes. Seven torpedo bombers were destroyed and others damaged by the guns of the convoy. This attack was the forerunner of a series from South France bases which continued up to 1st August 1944 at an average rate of two attacks per month.

The next major attack was delivered on the 4th October. A mixed force of about 30 torpedo-carrying He-111s and glider-bomb carrying Do-217s attacked a convoy Northeast of Algiers at dusk. This was the first occasion on which Hs 293 glider bombs were used. P-39s of 3/6 Squadron FAF intercepted the bombers and considerably disorganised their attack. Four ships were hit of which one was sunk, two were towed into harbour and the fourth was able to continue with the convoy. The P-39s destroyed three enemy aircraft and another was shot down by an unidentified aircraft, believed enemy. One Do-217 was damaged. The French pilots put up a very good performance, particularly from the point of view that their efforts entailed return to base at night.

On October 21st the enemy attacked again, this time with about 30 aircraft - Ju-88s, He-111s and Do-217s - against a convoy Northeast of Cap Tenes. Two medium-sized merchant vessels were sunk and an L.S.T. damaged. The attack was made just before dark and for the first time flares were dropped. P-39s of 345th Squadron and Beaufighters of 153 Squadron between them destroyed four enemy aircraft and damaged one. One of the enemy aircraft destroyed was one of the shadowing aircraft and it was shot down 25/30 minutes before the attack developed.

DECLASSIFIED

SECRET

The enemy, encouraged no doubt by his moderate successes in October, evidently determined to make an all-out effort in November to disrupt the large amount of shipping which was passing along the North African coast to the Italian front. Three substantial attacks were made in November, and it must be admitted that this was the enemy's most successful month.

The first attack was on the 6th November against a convoy 10 miles off Cap Bougaron. Bad weather over our bases made it necessary to recall our dayfighters but did not deter the enemy. Two troopships and a destroyer were lost, fortunately with very slight personnel casualties. The convoy and her escorts claimed five enemy aircraft destroyed whereas the enemy admitted the loss of six.

November the 11th saw the next attack. A force of not more than 10 Do-217s with Hs 293 glider-bombs and 15 He-111s with torpedoes attacked a convoy 30 miles North of Cap Carbon. The Do-217s were intercepted as they were climbing to their operational height and their attack was frustrated. The He-111s were, however, able to press home their attack and five ships were hit of which four were sunk. Beaufighters claimed two enemy aircraft destroyed and two damaged. The enemy admitted the loss of six aircraft. Three are known to have crash-landed in Spain.

Encouraged by this comparative success, the enemy launched another attack on the 26th November in Bougie Bay, but on this occasion was rash enough to time his attack an hour and a half before sunset. One transport was hit by an Hs 293 glider-bomb and unfortunately sank with heavy loss of life due to the high seas running at the time. A very heavy toll was taken of the strike force. Spitfires of 1/7 FAF Squadron destroyed two Fw-200s and two He-177s and damaged three Fw-200s, one He-177 and two Do-217s. Beaufighters of 153 Squadron destroyed three He-177s, probably destroyed one He-177 and damaged another. P-39s of the 347th Squadron probably destroyed an He-177 and damaged another. A Beaufighter of 414th Squadron destroyed one He-177. One unidentified enemy aircraft was shot down by the convoy. This was the heaviest loss ever suffered by the enemy in a convoy attack.

January, February and the first week of March 1944 saw three more dusk attacks. For our part counter-measures were laid on which consisted of putting Beaufighters on patrol in the area of the Balearic Islands in order to intercept the enemy strike forces on their usual route to the shipping lanes.

On the 10th January an attack was made on a convoy near Cap Carbon. The attack had been anticipated and two Beaufighters of 153 Squadron were sent North to the Balearics. Here they intercepted a formation of nine Ju-88s about 185 miles North of the convoy. In five attacks on the enemy aircraft, two were destroyed and one probably destroyed and the remainder jettisoned their torpedoes and beat a retreat. Some 15 He-111s reached the convoy and attacked, sinking one ship and damaging another. Two He-111s were damaged by fighters and two were shot down by the convoy.

The next attack took place between Cap Ivi and Cap Tenes when the enemy sent out a force of over 40 torpedo and glider-bomb carrying aircraft. In view of his experience in the previous attack he also sent a night-fighter escort of Ju-88C-6s. The formations were again intercepted by Beaufighters of \* Squadron 120 miles Northeast of the convoy before the fighter escort had had time to close in. The Beaufighters destroyed two and damaged three enemy aircraft. Another interception was effected by P-39s of 1/4 Squadron 55 miles Northeast of the convoy which damaged one. Only eight Ju-88s reached the convoy where one was

destroyed by a Beaufighter of 414th Squadron and one by the guns of the convoy. One ship was sunk and one damaged.

The enemy, however, was persistent and tried another dusk attack on the 8th March North of Algiers. A force of 50 to 60 aircraft was dispatched. On this occasion P-39s of 1/4 Squadron destroyed the "shadowing" Ju-88 some 30 miles North of the convoy with the result that the main force made a very bad approach. The main formations were broken up before they reached the convoy and Beaufighters of 153 Squadron destroyed two Ju-88s, one He-177 and Do-217, probably destroyed one Ju-88 and two He-177s and damaged one He-177. In addition, Mosquitos of 23 Squadron were sent out to greet the raiders on their return to their French bases and two He-111s were destroyed by them. There was no damage to any of the ships and this was the most outstanding victory for our fighters.

In view of these defeats, it was thought that the enemy would most likely change his tactics to night attacks and this view was subscribed to by many prisoners of war.

Sure enough, this was the policy next adopted by the enemy. After dark on the 19th March a mixed force of He-111s, Ju-88s and He-177s attempted to attack an Eastbound convoy North of Cap Sigli. For the first time the enemy used flare dropping pathfinders which attempted to illuminate the convoy with bunches of flares dropped in lines to the seaward side of the convoy. The attack was a complete failure, the majority of the force failing to find the convoy. There was no damage to any ship. Beaufighters of 153 Squadron destroyed one He-177 and a Ju-88 crashed into the sea while low flying on the way to attack.

A similar attack was attempted on the 29th March by about 16 enemy aircraft off Bougie with the same complete lack of success. Brilliant flares were used. Beaufighters of 153 Squadron destroyed two Do-217s and probably destroyed a Ju-88.

Somewhat more successful was the attack on the night of the 31st March/1st April when 12 to 16 enemy aircraft attacked a convoy North of Chenoua. One ship was hit and set on fire and had to be towed into Algiers. Night fighters had a number of contacts and visuals but did not succeed in destroying any of the enemy.

This must have encouraged the enemy and another night attack was made on the 11th April North of Algiers. One destroyer was torpedoed but managed to reach Algiers in tow. Beaufighters of 153 Squadron destroyed three Ju-88s and a Do-217. A large number of flares was used and the aircraft attacked from all directions.

In the next two attacks, the enemy again chose the dusk period, and achieved greater success than in his night attacks. The latter had, however, considerably cut down his heavy aircraft losses. On the 20th April a mixed force of about 25 He-177s, Ju-88s, He-111s and Do-217s attacked two convoys, one off Cap Bengut and the other 80 miles North of Djidjelli. In the former, two merchant vessels and a destroyer were sunk and two merchant vessels damaged. In the latter one French troopship was sunk with only light casualties. Beaufighters of 153 Squadron destroyed an He-177 and a Do-217 and damaged four Do-217s. One Ju-88 was destroyed by ships' fire. This was a considerable success for the enemy and it was not surprising that the next convoy attack was also made at dusk.

On the 11th May a force of about 40 Ju-88s set out to attack a convoy 20 miles North of Dellys. The attack was almost certainly planned to take place at last light, but owing to the destruction of one of the shadowing aircraft before it reached the convoy and the interception of

the attacking force by Beaufighters and Mosquitos, the majority of the enemy aircraft did not arrive until it was too dark to make an attack. Apparently no flares were used. There was no damage to any ship. Our fighters destroyed five Ju-88s and damaged three. The convoy reported that at least 10 enemy aircraft were shot down. Prisoner of War reports subsequently indicated that K.G. 26 lost as many as 17 aircraft in this attack. Whatever the true losses, they were evidently sufficiently heavy to discourage further dusk attacks and the last three convoy attacks were made at night.

On the night of the 30th/31st May some 35 enemy aircraft attacked a convoy off Djinet. The old procedure of pathfinders, flare droppers and illuminators was followed and radar countermeasures were used. One ship was sunk. Two of the aircraft engaged on the reconnaissance of the convoy was shot down prior to the attack. In addition a Beaufighter destroyed one Ju-88 over the convoy and another was destroyed by a Beaufighter intruding to Istres.

Then followed a period in which it seemed that the enemy was no longer able to mount an attack against our convoys. This continued until the 12th July when 30/35 enemy aircraft approached a convoy North-east of Car Kramis. The attack, if it is worthy of the name, was an absolute failure. No ship was hit, though there were reports of torpedoes passing astern of the convoy. Night fighters obtained numerous contacts but were unable to engage any enemy aircraft on account of extreme low flying and evasive action.

Shortly after midnight on the 1st August the enemy made what will probably prove to be his last attack on a convoy off the Northwest African coast. About 30 aircraft took part but failed to inflict any damage on shipping. Again no enemy aircraft were engaged for the same reasons as before.

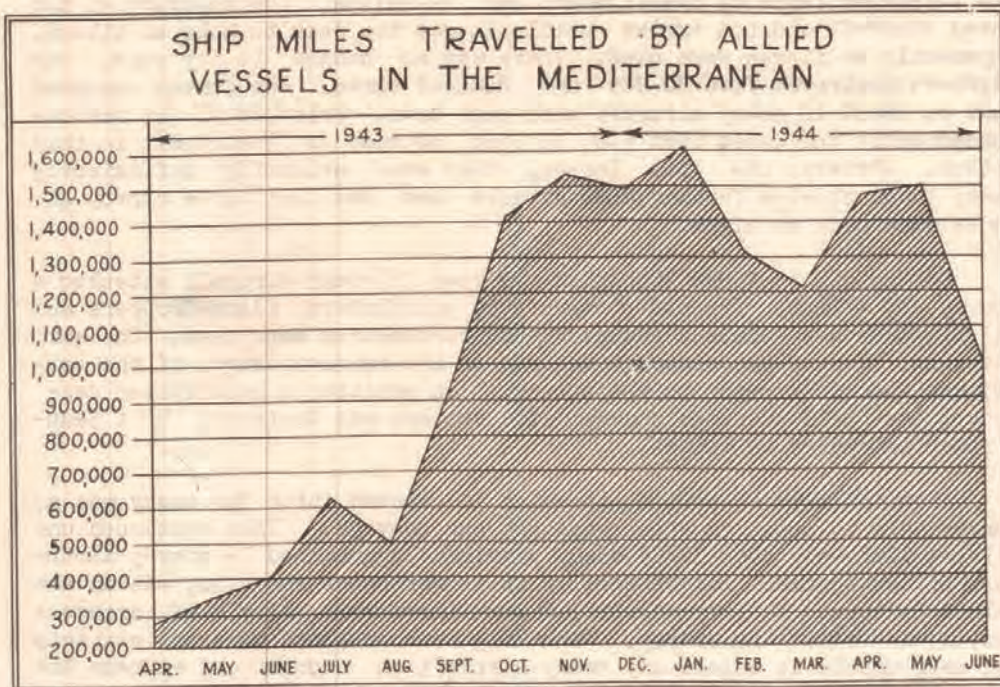
The above is intended to give a short chronological outline of the enemy's attacks on our convoys and our efforts to counter them. The struggle was not easy and only the most constant watchfulness by all concerned with the defence enabled the enemy's efforts to be so largely thwarted. The following figures may help to give a better idea of the success of Mediterranean Allied Coastal Air Force in guarding the convoys.

Since April 1943 Mediterranean Allied Coastal Air Force fighters have escorted 844 major convoys comprising 12,801 ships. Day fighters have flown 92,734 sorties and night fighters 10,985 sorties in giving escort to these convoys.

The enemy has made 25 air attacks against these convoys using torpedoes, glider bombs and ordinary bombs. The total effort approximates 646 aircraft giving an average of 25 aircraft per attack.

The number of ships in convoy sunk by enemy aircraft was 14 merchant vessels, three transports and two destroyers. The number damaged was 11 merchant vessels, two destroyers and three L.S.Ts. Against this the enemy lost a total of 83 aircraft destroyed, nine probably destroyed and 37 damaged. Of these the score for our fighters was 61 : 9 : 35, the remainder falling to the guns of the convoys and their escorts. This loss of 83 aircraft destroyed represents the very high proportion of over 12 per cent of the aircraft employed.

The number of ship-miles steamed by ships under our fighter escort ranged from 274,000 in April 1943 to 1,543,000 in November 1943. The total ship-miles from April 1943 to the end of June 1944 was 15,659,000 giving an average of 1,044,000 ship-miles per month. The losses per



ship-mile ranged from 30,444 ship-miles per ship sunk in April 1943 to 1,500,000 ship-miles per ship sunk in May 1944.

## PROTECTING COMBINED OPERATIONS IN SIX INVASIONS

MACAF escorted six invasion forces to landing areas in the Mediterranean and, in addition to protecting invasion build-ups against enemy reconnaissance and attack, carried out various other functions in connection with all of these combined operations.

In addition to the usual defensive missions required for the protection and escort of the forces which landed on Pantelleria in the third week of June 1943, MACAF carried out some operations in direct support of this landing. MACAF fighters, in the preceding week, successfully strafed harbor installations at Pantelleria.



The task of defending the forces invading Sicily on 10 July ran up MACAF's convoy escort sorties to a record total of 1844 (compared with 1,246 sorties the previous week and 899 in the week before that). During the invasion week 2,700 sorties were flown, the most that have been carried out in any single week of MACAF operations. Increased harbor patrols, reconnaissance and convoy escort responsibilities piled up this total.

The Salerno landings on September 8, 1943 called forth another heavy effort to give escort to the fleet, protect invasion ports and furnish air-sea rescue and anti-submarine escort. The convoy escort operations required 1,344 sorties during invasion week (compared with 536 and 948 respectively in the two preceding weeks). Total sorties, reflecting increased activity in other categories, rose to 2,269.

The Anzio landings on 22 January shot total MACAF sorties up from a normal commitment of around 1,500 a week to 2,500 in the invasion week and to nearly as great a number in the immediately preceding and succeeding weeks.

MACAF aircraft flew 974 patrol sorties during this invasion week, 700 of them in protection of Naples harbor where the force assembled and the seas Northward to Anzio. MACAF fighters, in addition to fending off other possible enemy action, destroyed 13 enemy aircraft, probably destroyed one and damaged six. MACAF Spitfires, on 23 January intercepted a formation of 50 to 60 bombers and torpedo bombers on their way to advanced bases from which they intended to attack invasion forces. The Spitfires destroyed three Ju-88s and three He-111s, and forced other enemy aircraft to jettison bombs probably destroyed one He-111. MACAF Beaufighters attacked some of this same force on its return trip and destroyed a Ju-88 and a Do-217. On 24 January, four MACAF Spitfires destroyed two Do-217s and damaged another, North of the invasion area. Beaufighters destroyed two He-177s and a Do-217 and damaged one Do-217, out of a force of 20 enemy aircraft raiding shipping off Gaeta and along the invasion beach, on the 24th.

Ships which took invasion forces to Elba were escorted by MACAF fighters which covered this operation as the others before. MACAF radar units were quickly ashore to provide the first radar warning defense for the island. For months prior to the Elba landings, MACAF fighter-bombers and fighters, as well as B-25s, had helped "soften up" the island by raids on Port Farraio and on military installations.

The invasion of France, on 15 August 1944, imposed a variety of responsibilities on MACAF forces. These included protecting the ships of the invasion fleet in port, escorting this shipping to within 40 miles of the coastal areas where the landings were made, defending the invading craft against U-Boat attack, affording Air-Sea Rescue facilities for all the air forces engaged in the operation, intruding over enemy areas to counter the enemy's air effort, attacking enemy shipping and communications and also involved reconnaissance of the areas on the flanks of the invasion beach-head. From 10 August to 20 August, MACAF aircraft flew 1,576 sorties in carrying out its invasion assignment. Of these, 700 were flown giving fighter escort to convoys, 100 in anti-submarine escort, 39 in reconnaissance, 306 in carrying out harbor patrols, 52 on intruder missions and 31 on special assignments in connection with the invasion. All the escorted invasion forces reached landing areas without mishap.

The Air Sea Rescue operations were especially notable. During invasion week these MACAF units rescued 18 Allied aircraft and in the follow-

ing week they picked up 30 Allied air crew in supporting the invasion operations. By D plus 14 (29 August) the Air Sea Rescue service had saved 109 lives in the invasion areas. Included in the rescues was the nine-man crew of a task force glider which ditched five miles South of Tarquinia.

Only the impotence of the Luftwaffe deprived MACAF fighters of opportunity to make another record like that of the Anzio landings.

## ROLL OF SQUADRONS

THAT HAVE OPERATED UNDER MEDITERRANEAN ALLIED COASTAL AIR FORCE  
APRIL 1943 TO SEPTEMBER 1944.

### USAAF

1st E.R.U. - Catalinas  
1st A/S - Liberators  
2nd A/S - Liberators  
2nd - Spitfires  
4th Spitfires  
5th - Spitfires  
91st - P-39  
92nd - P-39  
100th - P-39  
301st - P-39  
302nd - P-39  
345th - P-39 P-47  
346th - P-39 P-47  
347th - P-39 P-47  
379th - B-25s  
380th - B-25s  
381st - B-25s  
414th - Beaufighters  
415th - Beaufighters  
416th - Beaufighters  
417th - Beaufighters  
427th - P-61  
428th - B-25s

### FAF

1/4 - P-39  
1/5 - P-39  
2/3 - Hurricanes  
2/5 - P-40s  
3/3 - P-39s  
3/6 - P-39s

2-S - Latecoeres  
4-S - Latecoeres  
326 - Spitfires  
327 - Spitfires  
328 - Spitfires  
Lafayette - P-40s

### RAF

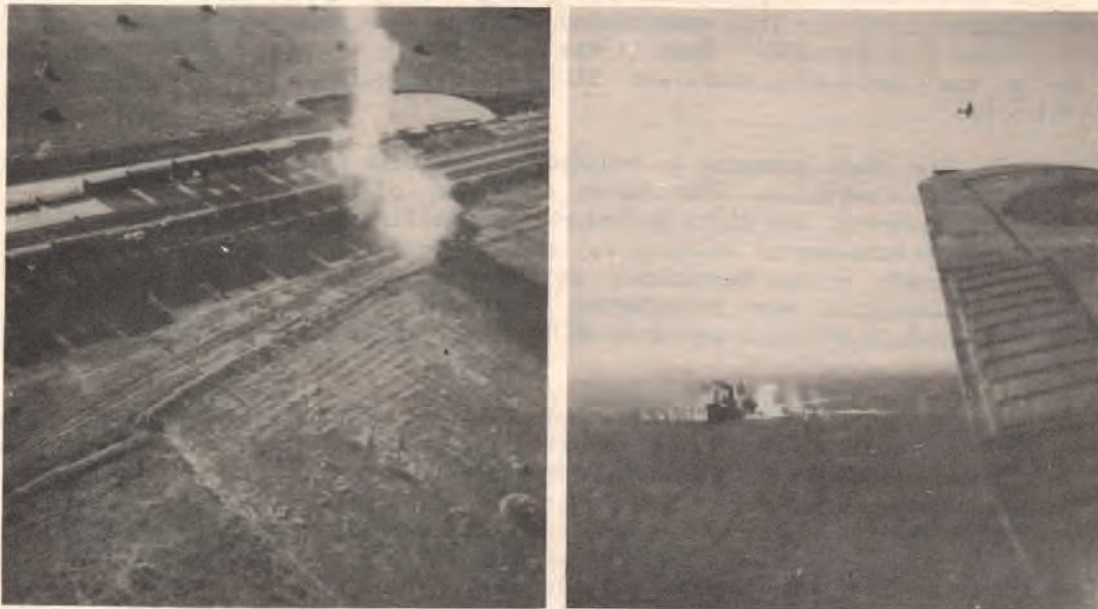
43 - Hurricanes  
6 - Hurricanes  
13 - Bisleys  
14 - Marauders  
23 - Mosquito  
32 - Spitfire-Hurricane  
36 - Wellington  
39 - Beaufighter  
47 - Beaufighter  
52 - Baltimore  
69 - Baltimore  
73 - Spitfire-Hurricane  
81 - Spitfires  
87 - Spitfire-Hurricane  
108 - Beaufighter  
126 - Spitfire  
117 - Spitfire  
144 - Beaufighter  
153 - Beaufighter  
185 - Spitfire  
219 - Beaufighter  
221 - Wellington  
227 - Beaufighter

229 - Spitfires  
230 - Sunderland  
249 - Spitfire  
253 - Spitfire-Hurricane  
255 - Beaufighter  
256 - Mosquito  
272 - Beaufighter  
283 - Walrus-Warwick  
284 - Walrus-Warwick  
293 - Walrus-Warwick  
458 - Wellington (RAAF)  
500 - Hudson  
600 - Beaufighter  
603 - Beaufighter  
608 - Hudson  
614 - Bisleys  
813 - Swordfish  
821 - Albacore  
826 - Albacore  
1435 - Spitfires  
1575 - Venturas

### SAAF

1 - Spitfire  
2 - Spitfire  
4 - Spitfire  
17 - Venturas  
22 - Venturas  
27 - Venturas

# OFFENSIVE OPERATIONS



MACAF squadrons, in addition to their defensive commitments in the Western Mediterranean, have waged an air offensive against the enemy's sea forces, air transport, coastal installations, internal communications, military installations and airdromes.

Ship-strike forces of MACAF have destroyed 266 craft of all kinds and damaged another 620 in their operations since the formation of NACAF. They have destroyed 1,163 vehicles and damaged 1,255. They have destroyed 125 locomotives and damaged another 175. They also have blown up more than 25 bridges and made another 70 unusable for varying periods. They have, in addition, bombed and strafed ports along the Western Mediterranean from the toe of Italy to the Spanish border, and throughout the enemy-held areas of the Adriatic. Other targets have included all sorts of military installations and stores, and enemy ground forces.

It is difficult to arrive at a statistical measure of all the damage done by aircraft flying at night into heavily-defended targets, or by fighter aircraft which make their attacks against heavy fire and withdraw at the highest speed possible. In many attacks there were no observed results. Much damage undoubtedly was done in many of these. Accordingly, these figures on offensive achievements are incomplete and constitute an estimate based on missions where definite results were observed and reported.

## The Offensive from Northwest Africa

Through 30 September 1943, offensive operations consisting principally of strikes against enemy shipping and the interception of the enemy's air transport lines were carried out from Northwest African bases.

During this six months period, 14 ships were sunk by our Strike forces and a further 76 vessels were damaged. At first, the newly formed Northwest African Coastal Air Force was handicapped by a lack of equipment with which to wage an offensive campaign against shipping. Much shipping was reaching Bizerte and Tunis in spite of the blockade by

Naval forces. To deal with this sea transport the force had at the start only a squadron of torpedo-carrying Marauders. Later, these aircraft were adapted to reconnaissance work and sought out targets for two squadrons of B-17s. This combination achieved some results, inadequate as it was for the task. Soon it was disrupted by the withdrawal of the B-17s and for a time there was little NACAF could do to harass enemy shipping.

In June 1943, however, a rounded ship-strike force was formed and stationed at Protville. This force consisted of two day torpedo Beaufighter squadrons, one night torpedo-bomber Wellington squadron, a flight of night reconnaissance Wellingtons and two squadrons of day reconnaissance aircraft - one Baltimores and one Marauders - under 328 Wing. This organization was re-inforced from time to time by B-25G's (in September 1943) and by a squadron of B-24s (sent in during the Sicilian landings).

These aircraft covered the whole Western Mediterranean in their search for targets. A tanker off the East coast of Corsica was their first good prey, on the night of 18th June. From the 10th to 15th of August, they sank four merchant vessels totalling 13,000 tons. The forays of the Beaufighters and Wellingtons gradually drove the enemy's shipping off the open seas and forced them to resort to crawling up the coasts under the shelter of shore defenses.

Operations continued through the Salerno landings, in September, with the enemy furnishing fewer and fewer suitable targets for the torpedo Beaufighters as he turned to vessels of lesser draft. This alteration of the ship targets prompted the employment of B-25s with cannons and bombs and the use of dive-bombing fighter bombers (as soon as bases close to the ship routes became available).

#### Offensives from New Bases

Movement of MACAF forces from Northwest Africa to new bases in Italy, Corsica and Sardinia commenced in September and was completed in October and November. These forces, 242 Group in Eastern Italy and 63rd Fighter Wing in Corsica, continued the ship-strike operations and added to them a campaign against ports, motor transport, military installations and railways.

This phase of MACAF offensive operations resulted in the destruction of 252 craft of all kinds and the damaging of another 544 craft. The enemy's motor transport was heavily hit and 1,163 vehicles were destroyed, 1,255 damaged. In attacks on railway rolling stock 125 locomotives were destroyed, 175 damaged, and hundreds of railway cars were damaged or destroyed.

In November, these offensive operations began to grow in volume. In December more than 300 offensive sorties were being carried out. With the start of the New Year, operations got under way on a really heavy scale, and in January MACAF aircraft flew 1,500 offensive sorties. In February this increased to 2,351 sorties. In March the offensive effort reached a peak at 3,521 sorties. Then it dropped to 2,248 in April, 1,803 in May, 2,362 in June, 1,213 in July and down to 614 in August.

#### In the Adriatic

From its bases in Eastern Italy, 242 Group carried out a thorough-going offensive from one end of the Adriatic to the other. It sank more than 100 vessels of all kinds and damaged another 277 craft; destroyed 107 locomotives and damaged 87; destroyed 1,023 motor transport and damaged more than 1,000.

In the first quarter of 1944 the Group flew 875 offensive sorties. Their offensive effort reached its peak with 3,019 sorties in April, May and June, and thereafter tapered off as the transfer of MACAF squadrons commenced.

Other successes are not so easily enumerated. They attacked port installations from Preveza along the shores of Albania and Yugoslavia and about the upper Adriatic and Southward to the limits of Axis-held territory. They pounded away at Radar stations, gun-sites, supply dumps, enemy headquarters and camps, and for months furnished to the Partisan forces of Marshal Tito direct air-support to his ground operations, functioning with especial efficiency in these operations after a forward base was established on the Island of Vis in February 1944 and improved for efficient operation in April. As many as 120 aircraft were refuelled in a day at this forward base. Close liaison with the Partisans was maintained and the limited forces available were used to strike installations the destruction of which would be most effective in aiding the Partisans, and in many cases were operated in direct support of ground forces.

The Group was also successful in countering the enemy's air forces. It destroyed 25 enemy aircraft on the ground and damaged another 25 in attacks on enemy airdromes and airfields. It continued throughout this period defensive operations in which many other enemy aircraft were destroyed in combat.

Important as the operations against ground targets were in blocking the Germans' precarious communication lines and in aiding the Partisans, shipping targets never were neglected and continued the main concern of 242 Group's forces. The exact amount of shipping destroyed and damaged probably cannot be determined, inasmuch as many night attacks were made without observed results; and frequently in attacks on ports and harbours Wellingtons dropped bombs among shipping under circumstances not permitting observation. As near as the ship losses can be estimated exclusive of those inflicted incidentally in port attacks, 242 Group destroyed 8 merchant vessels, 37 schooners, 22 barges, three Siebel Ferries 9 E/B, F/B, and I/B, 44 small vessels, 35 other small craft and three escort vessels.

Squadrons active in 242 Group's Adriatic campaign during all or a part of this time included: 87 Squadron, 6 Squadron, 1435 Squadron, 73 Squadron, 253 Squadron, 221 Squadron, 39 Squadron, 14 Squadron, 255 Squadron, 185 Squadron, 249 Squadron, 32 Squadron.

#### The Western Mediterranean

From its headquarters in Corsica, 63rd Fighter Wing directed a similar campaign against the same sort of targets over the Tyrrhenian Sea, the Ligurian Sea and the Western Mediterranean, and along the coasts of Western Italy and Southern France. While the 242 Group operations were entirely RAF, the units of 63rd Fighter Wing included USAAF, RAF, SAAF, RAAF, and FAF squadrons.

Shipping was the prime target for the Wing's operations, but the strike forces dispatched against ship targets were briefed to attack alternate targets ashore. Missions also were sent directly against land targets, as was the case in March, April and May during "Strangle".

From 1 Jan., when the campaign got well under way, to 30 August, Wing aircraft in these operations sank 152 craft and damaged 267, destroyed 140 motor transport and damaged 157; destroyed 18 locomotives and damaged 88; destroyed 19 bridges and damaged 44.

In addition to this, they harried ports along the enemy coast-lines and attacked military installations, airdromes and supply dumps behind the front.

The shipping campaign resulted in the destruction or sinking of 19 merchant vessels, 12 small vessels, 20 schooners, nine F/B, seven E/B, 47 barges, three I/B, 2 R/B, 31 other craft and 2 S/F. Shipping damaged included 42 merchant vessels, 36 small vessels, 20 schooners, 33 F/B, 10 E/B, 57 barges, one R/B, 61 small craft, one cruiser, two destroyers, and four escort vessels.

The 310th Medium Bombardment Group played a major role in this offensive, in the first quarter of 1944. From 13 January to 21 March, the Group's B-25s and B-25 Gs (carrying 75 mm cannon) destroyed five merchant vessels, six coasters, one minesweeper, 15 schooners, one tanker, eight landing craft, three E/B, 34 barges and 28 small craft. They damaged 16 merchant vessels, two coasters, four schooners, one tanker, two escort vessels, 13 landing craft, three E/B, 14 barges and many small craft. They also carried out an effective port-smashing drive, attacking Porto San Stefano 22 times (nine of them with 75 mm cannon) and dropping 1,358 five-hundred pound bombs on this important port, which the Nazis employed as their rail-head to the front. They bombed Leghorn ten times, dropping 261 tons of bombs. Talamone was attacked with cannon 3 times and with bombs 3 times. There were three raids on Cecina, three on Piombino, three on Porto Ferrajo, four on Giglio. Other targets included Grosseto, Sestri Levante, Fallonica, Montenera, Pisa, Port Ercole, Viareggio, Castiglione. In this whole effort the Group dropped one thousand tons of bombs and shot 1,357 rounds of 75 mm shells and 118,235 fifty-calibre bullets.

The 52nd Fighter Group also figured prominently in these operations up until its assignment away from XII Fighter Command on 20 April. The Group's Spitfires flew 3,313 offensive sorties. Employing their Spitfire fighters as dive bombers, the Group joined the campaign against shipping and sank two barges, a tanker, a fishing boat and a gun boat. They damaged several tugs, a tanker, eight merchant vessels, four F-boats, five schooners, one torpedo boat, six barges, one destroyer and five small craft. They also attacked land targets such as bridges, railroad trains and motor transport. In addition, they furnished escort to B-25s and mediums of other air forces on nearly a hundred missions.

The 350th Fighter Group carried out some offensive missions in January and February, and in March plunged into the offensive operations with great effect, employing 37 mm cannon and using bombs against both shipping and land targets. In their shipping attacks, they damaged 18 small craft, three E-boats, one LCT, six schooners, three trawlers and several barges and sank five small craft and two barges. In attacks on highway traffic (most of them carried out in March and April) they damaged 21 and destroyed 45 motor vehicles. They also damaged 10 locomotives and destroyed five locomotives. Their most successful effort against ground targets was directed against bridges on the roads and railway lines North of the battle area where they carried out successful attacks against 45 bridges and got near misses which damaged approaches on many others. In one week (ending 12 April) the P-39s, carrying 1,000 pound bombs, made nine bridge attacks and knocked out six bridges and cut approaches to three others. This campaign of the Airacobra group came virtually to an end in April. Protection of harbors and convoys demanded more and more sorties and as the front moved North tactical commands took over the target areas which the P-39s could reach with heavy bomb loads. Targets other than those enumerated included military installations, ammunition and stores dumps, factories, warehouses, docks and marshalling yards.

French Spitfires of 326, 327 and 328 Squadrons were also effective against shipping and ground targets, although relied upon for a heavy commitment to harbor defense and convoy protection.

RAF Spitfires of 253 Squadron moved into Corsica and joined the offensive in March, carrying out fighter bomber missions and also flying escort missions for medium bombers and undertaking defensive sorties in addition.

The most notable continuous offensive campaign of the period was the participation of the Corsica-Sardinia based units in "Operation Strangle", the co-ordinated attack on Nazi communications in Italy planned by MAAF to pave the way for the great Allied ground offensive that smashed through Cassino and on to Rome, in May. In this effort, the MACAF aircraft destroyed 70 motor vehicles and damaged 54; destroyed 13 locomotives and damaged 60; demolished 19 bridges and damaged 15; sank 53 craft and damaged 14 others.

The outstanding ship-strike effort of the second quarter of 1944 was that of 6 Squadron Hurricanes, equipped with rocket projectiles. This squadron commenced operations with MACAF in the Adriatic on 29 March. A detachment was sent to Corsica and started operating there on 13th May. By the 1st of June they had damaged one dredger, four barges, three caiques, one F-boat, 7 small craft, and had sunk six barges, two caiques, one tug, two I-boats and a trawler. This squadron started operating at night against shipping targets on 1st June, and they had remarkable success. During the first week of day and night effort, they carried out attacks on 52 craft, destroying one LST, one E/B, one I/B, four barges, one F/B, two small craft; they scored hits on seven F/B, five barges, one LST, three E/B, two R/B, two schooners, two small boats.

For longer range strikes than could be carried out with the fighters, the Wing used the Wellingtons, Venturas and Beaufighters of 328 Wing, based at Alghero. This force very speedily stopped the considerable movement of medium-sized shipping along the Spanish coast to French ports. They put an end to the ore traffic which the Nazis had succeeded in sending along the coast of Southern France by sinking several of these carriers in a short time.

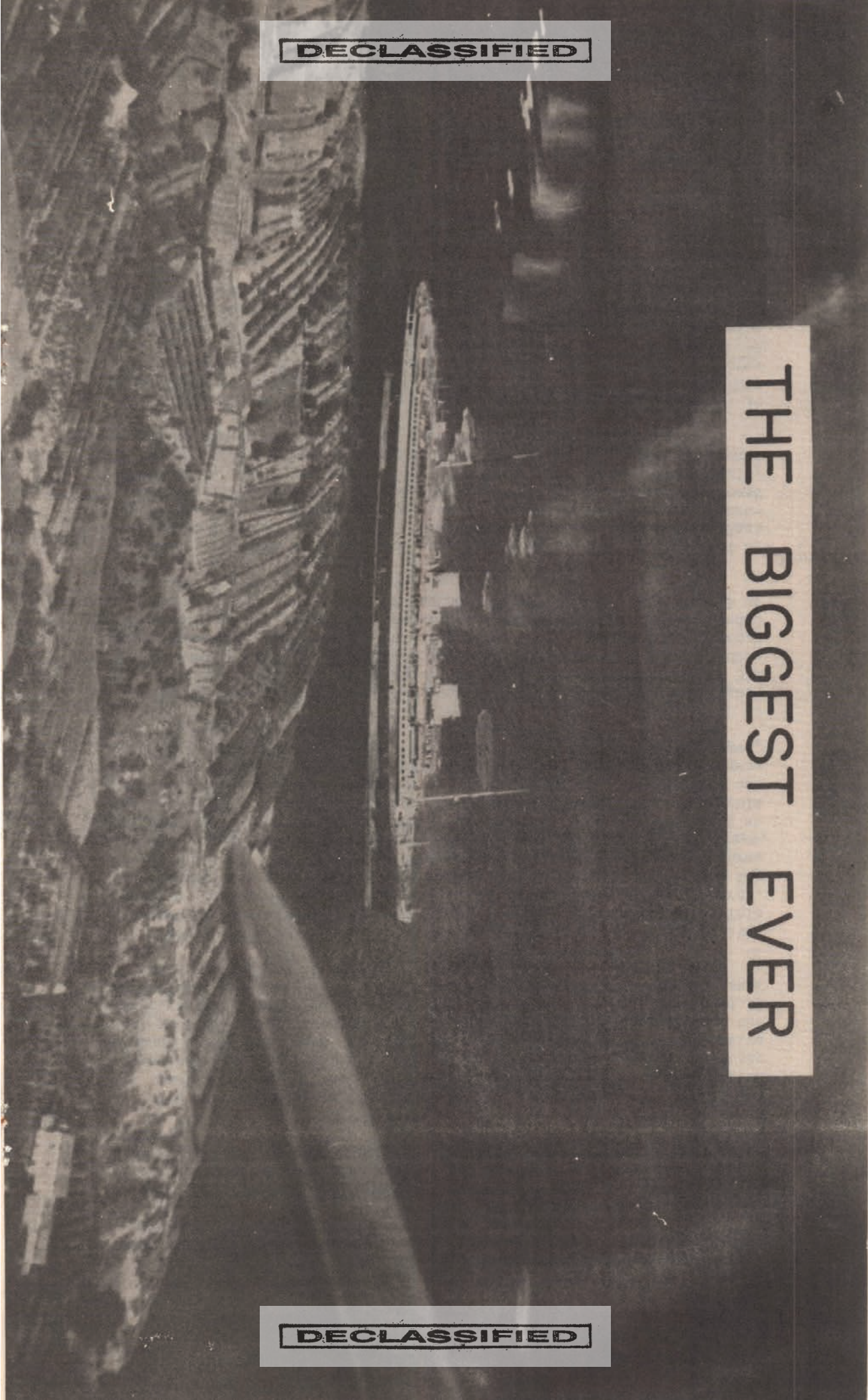
At a time when rail and road communications were being shattered by the combined assault of all the components of MAAF, the blockaded Nazi war machine was compelled to cope with a relentless attack on its coastal shipping. The craft which they attempted to shepherd along the coast waters had to face the possibility of attack by cannon-bearing B-25s, dive-bombing Spitfires, RP Hurricanes, RP Beaufighters, P-39s with bombs and 37 mm cannon and Wellingtons and Venturas with bombs.


This combined force not only sank and damaged much shipping. It also forced the slowing down of even the ships that did escape. They crept furtively from port to port. They clung more closely to shore. Soon they moved only at night. They required heavier and heavier AA protection and more and more flak escort ships. Smashed-up port facilities complicated loading and unloading even when the gauntlet of the coastal waters was successfully run.

DECLASSIFIED

# THE BIGGEST EVER

DECLASSIFIED





On the 8th September 1944 Beaufighters of 272 Squadron, escorted by P-51s, carried out the biggest shipping strike of the war. They attacked and sank the 51,000 ton Italian luxury liner "REX" which was lying off Capodistria. Eight Beaufighters each armed with eight 25 lb. S.A.F. rocket projectiles and escorted by eight P-51s, made the attack. They scored 59 direct hits on the liner, the majority being 10 to 20 feet below the waterline. The liner was set on fire and capsized. There had been signs that the Germans were preparing to use her as a blockship.

## WAR AGAINST THE U/BOATS

Mediterranean Allied Coastal Air Force has been engaged in a continuous war against the U-Boats.

In the period from April 1943 to the end of August 1944 G.R. aircraft flew 12,335 sorties against the U-boats. Of these, 5487 sorties were flown on direct escort to convoys, 3484 on anti-submarine patrols and 3364 on U-boat hunts. M.A.C.A.F. aircraft made 72 attacks on U-boats. At all times the very closest co-operation was maintained with the Allied Navies and, together, Allied air and surface forces sank 27 U-boats and damaged 14 in the Western Mediterranean.

The U-boats in their turn succeeded in taking some toll of our shipping. They sank 22 merchant vessels and 11 Naval craft and damaged 16 merchant vessels and six Naval craft. Regrettable as these losses were, they were very slight in comparison with the vast amount of shipping sailing in and through the Mediterranean. A glance at the graph at Fig. 1 will clearly show this. In only two months were sinkings by U-boats slightly in excess of one per cent.

The period down to the end of September 1943 might be called the defensive phase in the war against U-boats. The policy in the main was to give direct escort to convoys and to institute intensive hunt procedure in conjunction with Naval forces whenever the presence of a U-boat was known or suspected. As was pointed out by the Monthly Anti-Submarine Report for June 1943, during the months of April, May and June 1943 a total of some 1074 ships passed in convoy along the coast with the loss of six vessels. It was estimated that an aggregate of 184 U-boats were within striking distance of these convoys at different times.

One of the outstanding kills during this period was made by a Hudson of 608 Squadron introducing the Rocket weapon to the Mediterranean for the first time. In the afternoon of the 28th May the U-boat was sighted on the surface 60 miles North of Mallorca. Apparently the U-boat was taken by surprise and did not sight the aircraft until the attack started. After the attack the U-boat was seen to be damaged and down by the stern and was later seen to sink.

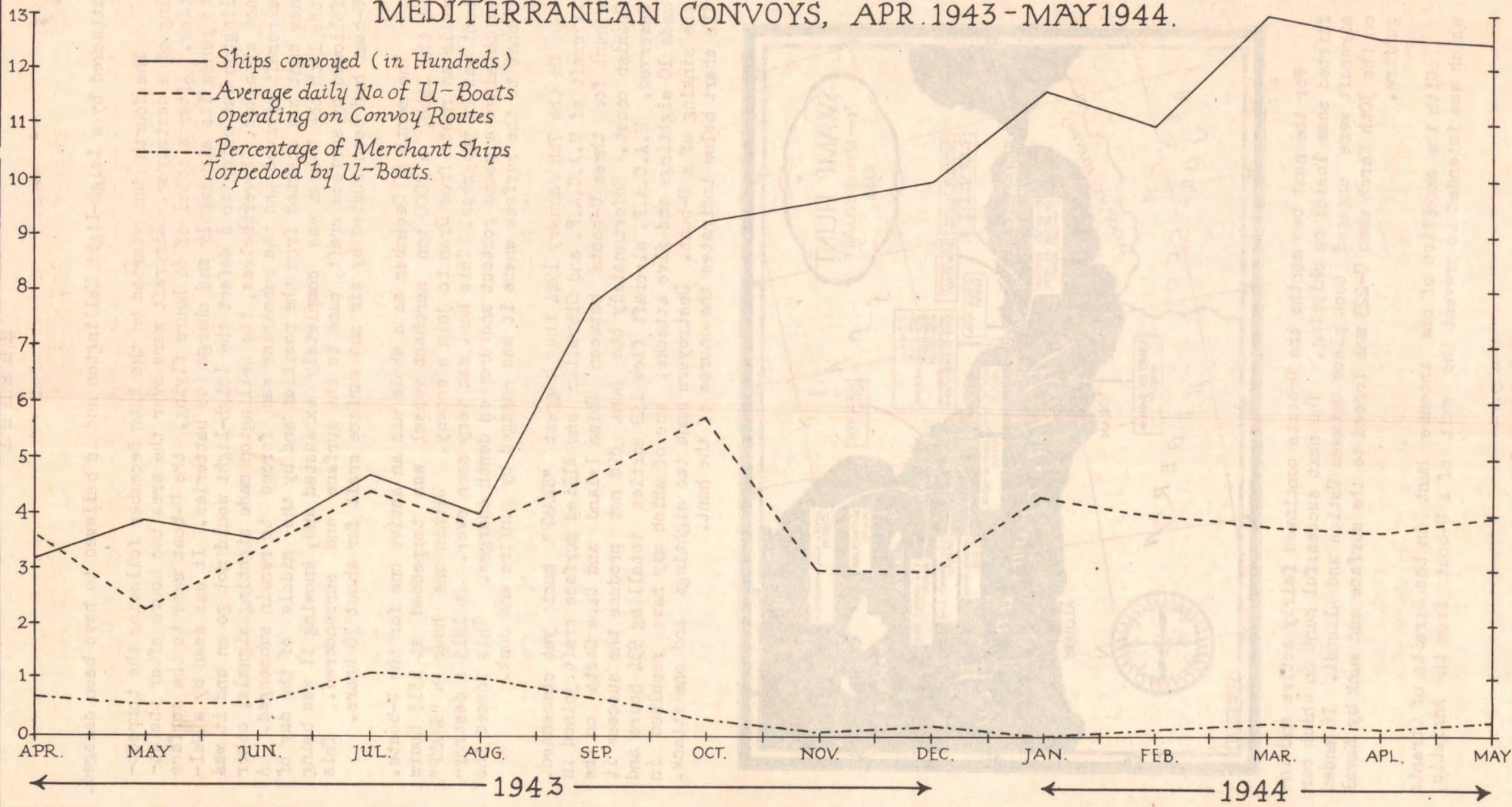
October 1943 saw the start of the vigorous offensive phase in the anti-submarine war. "SWAMP" was first employed and thereafter it was carried out repeatedly.

The object of operation "SWAMP" is to cover systematically and continuously the area in which the submerged submarine must lie so that a sighting and attack will be made as soon as the U-boat tries to escape on the surface. The hunt is maintained for such a time that even if the submarine makes no attempt to run for it on the surface, it must eventually come to the surface with flat batteries and foul air supply, in which condition it will be an easy target.

The area to be covered at successive stages of the hunt is calculated from the known underwater performance of the German submarine and the flying is planned so that every point in the area is searched at least twice in every hour. Since most of the "hunnable" submarines are found fairly near the coast, the area to be patrolled is almost semi-circular, thus reducing by half the number of sorties that would be required if the hunt took place in open sea.

There were two "SWAMP" hunts in October. Things went wrong in the execution of the operation and results were not achieved. The third hunt began on the 3rd November 1943. The first sighting came after 15 hours during which time our aircraft had flown 53 hours. The submarine was

## MEDITERRANEAN CONVOYS, APR. 1943 - MAY 1944.

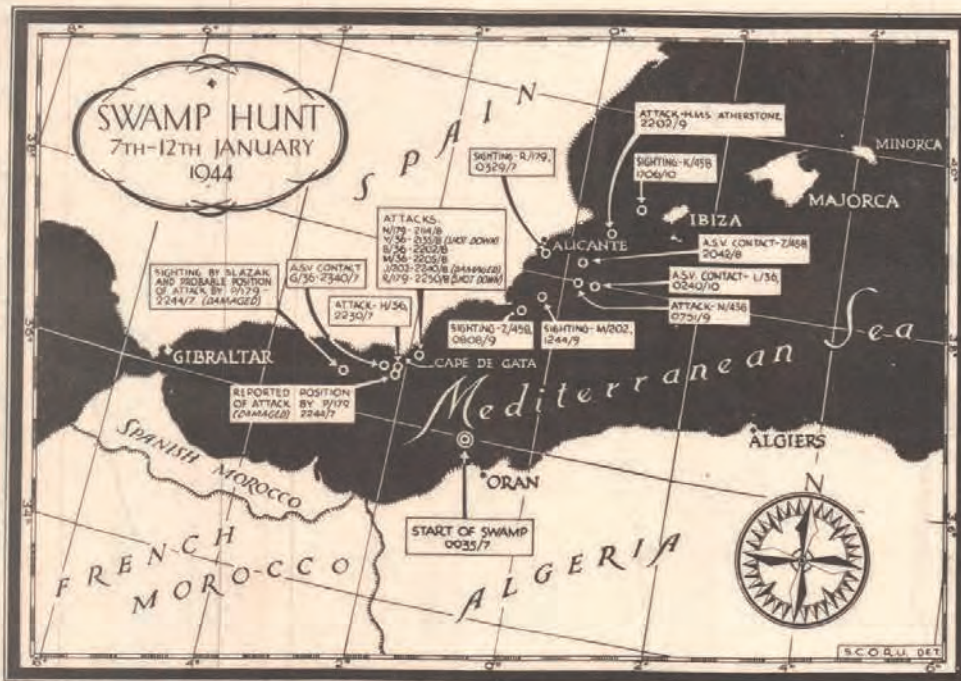


attacked by a Leigh-Light Wellington and is believed to have been damaged.

The fourth hunt started on the 12th December following the torpedoing of a destroyer. Aircraft were over the area two hours after the attack. After a total of 64 hours flying, the U-boat came to the surface to renew its air supply and charge its batteries. It was seen by a Wellington but owing to a defect the Leigh-Light would not go on and it was not attacked. Nevertheless, the Wellington made sighting signals, other aircraft arrived and the submarine was forced to remain submerged. A new hunt was started from the position and by the middle of the day of the 13th the U-boat was completely exhausted and, knowing it was being followed by surface craft, came to the surface and surrendered. This U-boat had been hunted by air and surface craft for about 30 hours.

The month of December as a whole was an active one for the U-boats. On the 16th, a 7000 ton merchant vessel was torpedoed at 1515 hours while en route from Oran to join a convoy. Within one hour a "SWAMP" hunt was in progress. This hunt was very soon over. At 1815 a destroyer obtained a sound contact and dropped depth charges. This forced the U-boat to the surface where it was engaged by gunfire and sunk.

On the 7th January 1944 the biggest "SWAMP" hunt yet commenced. Aircraft of M.A.C.A.F. and Gibraltar and Allied surface craft joined in a hunt for three U-boats between Ibiza Island and Cape Gaeta on the Spanish coast. Unfortunately the hunt did not produce the success it deserved. M.A.C.A.F. aircraft flew 150 sorties totalling 934 hours and made 10 sightings and five attacks, one of which may have resulted in the sinking of a U-boat. Destroyers made two sightings and one attack. The chart below indicates the course of the hunt.



For the next two months the U-boats continued fairly active and inflicted some losses on shipping. The next successful hunt on which our aircraft were engaged took place between Ustica and Alicudi. It ended on the 30th March when U-223 was forced to the surface and sunk by Naval gunfire.

With the exception of one intense hunt in the Straits of Otranto which was intended to prevent the exit of a U-boat from the Adriatic,

the month of April was a quiet one. The hunt kept the U-boat tied up for several days but it eventually got away.

The month of May brought an intense effort by the U-boats and a resounding victory over them. This effort, in fact, proved to be the dying gasp of the enemy's undersea forces in the Western Mediterranean.

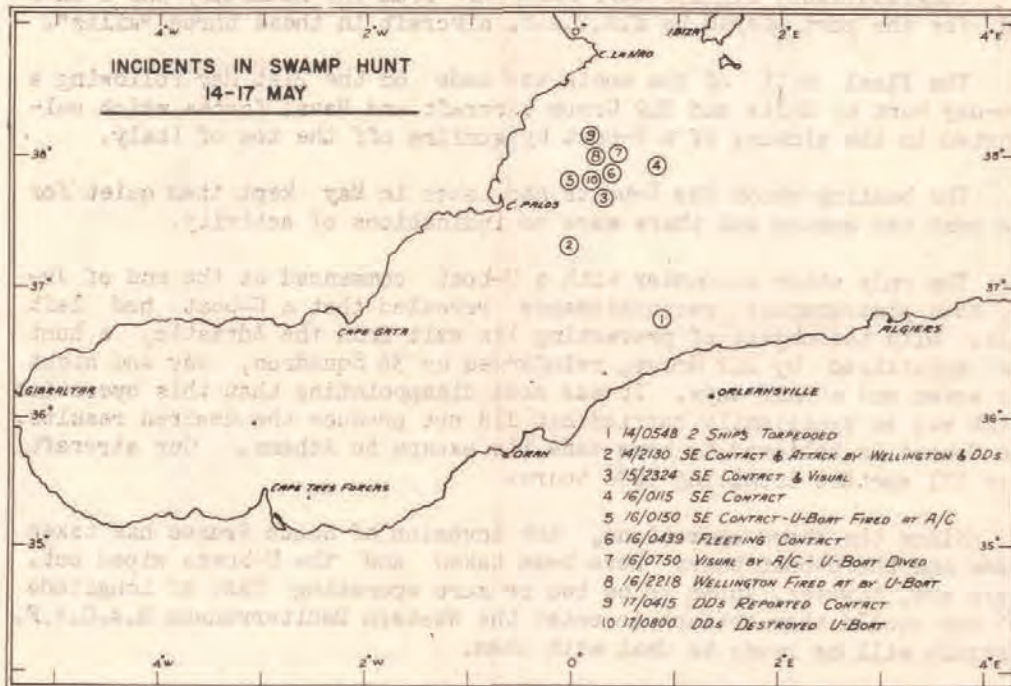
As a result of closely co-ordinated operations by surface craft and aircraft, the enemy lost five U-boats, two of them commanded by the most experienced and successful captains operating in this theatre. Aircraft of M.A.C.A.F. were directly concerned in the sinking of four of these.

On the 3rd May a United States destroyer was torpedoed 25 miles Northeast of Bougie. She was taken in tow and reached Algiers. A "SWAMP" hunt was immediately laid on. At 0330 hours on the 4th May the U-boat was sighted on the surface North of Djidjelli and was later attacked and destroyed by surface forces.

On the 5th May another hunt commenced following the torpedoing of another destroyer. Although continued until midday on the 7th, the U-boat made good its escape. There was another unsuccessful hunt North of Palermo on the 9th, but success was not far off for the anti-submarine forces.

On the 12th May a Wellington located a U-boat 80 miles North of Cap Bon and attacked with depth-charges, estimating one direct hit.

On the 14th May a tanker and a merchant vessel were torpedoed 30 miles Northwest of Cape Tenes. Both ships were hit well forward and were able to reach port under their own power. The hunt commenced at



once. One attack was made that night by a Wellington which claimed one direct hit. Destroyers arrived at the spot within 15 minutes and attacked with depth-charges. At 2243 they attacked again and then lost contact. During the day of the 15th there was no further definite contact with the U-boat and it is fair to assume that the aircraft were playing their part in keeping it below the surface. One contact was obtained on the night of the 15th but was lost before an attack could be

made. The next day a swirl was sighted and marked with sea markers. At 2218 hours on the night of the 16th a Wellington reported that it was being fired at by a U-boat. This Wellington was at the time awaiting relief as its equipment had gone unserviceable. It was just the luck of the game that the U-boat gave away its position by opening fire. Shortly after midnight surface craft reported that they were in contact and later the destroyers informed the aircraft that they had another contact. At 0800 hours the surface forces reported that they had sunk the U-boat by gunfire. M.A.C.A.F. aircraft flew 458 hours on this hunt.

When the destroyers engaged in the above kill were on their way back to base later in the day, three torpedoes were fired at them without effect. This was the signal for the start of another hunt. The U-boat lay low throughout the day of the 17th. A Wellington obtained one contact during the night but weather conditions were appalling and the U-boat was not sighted. No less than eight contacts were obtained by aircraft on the 18th without sightings. During the night of the 18th/19th it seemed that the U-boat attempted to make good its escape towards the Spanish coast. An excellent contact was obtained by a Wellington about 30 miles SSW of Cape Palos. Markers were dropped and the hunting destroyers were informed and homed to the position, which they reached by 0150 hours. At 0400 hours the destroyers carried out four attacks on good sound contacts. At 0724 a depth-charge attack forced the U-boat to the surface. A Ventura of 500 Squadron saw a periscope emerging and three destroyers closing in. The destroyers opened fire and when the U-boat was fully surfaced the Ventura went in and attacked with three depth bombs scoring one direct hit and two near misses. A direct hit by gunfire was also seen on the conning tower. The U-boat sank in 10 seconds.

Congratulatory signals were received from the Admiralty and C-IN-C Med. for the part played by M.A.C.A.F. aircraft in these three "kills".

The final kill of the month was made on the 21st May following a two-day hunt by Malta and 242 Group aircraft and Naval forces which culminated in the sinking of a U-boat by gunfire off the toe of Italy.

The beating which the U-boats had taken in May kept them quiet for the next two months and there were no indications of activity.

The only other encounter with a U-boat commenced at the end of July, when photographic reconnaissance revealed that a U-boat had left Pola. With the object of preventing its exit from the Adriatic, a hunt was maintained by 242 Group, reinforced by 36 Squadron, day and night for seven and a half days. It was most disappointing that this operation which was so excellently carried out did not produce the desired results. The U-boat is believed to have made its escape to Athens. Our aircraft flew 171 sorties totalling 1086 hours.

Since the above operations, the invasion of South France has taken place and the U-boat bases have been taken and the U-boats wiped out. There are, however, known to be two or more operating East of Longitude 20° and should they attempt to enter the Western Mediterranean M.A.C.A.F. aircraft will be ready to deal with them.

DECLASSIFIED

## DEFENDING M.A.C.A.F. PORTS



PORT OF ALGIERS

MACAF has provided air defence for Allied cities, ports, harbors, airfields and Allied installations up to within fifty miles of the front lines throughout all but the earliest phases of the Mediterranean war, maintaining radar stations and many squadrons of night-fighters and day-fighters.

As long as the enemy was capable of making an attack anywhere in Allied-occupied area, MACAF was compelled to be in readiness to frustrate any such effort. The immense areas involved made this a serious problem for a force which never had at its disposal, to meet the night attacks, more than six night-fighter squadrons.

In spite of the extent of the area to be defended, and the consequent wide dispersal of scattered defence forces, the Luftwaffe, in its attacks on ports and airfields in the Mediterranean, suffered heavier losses proportionately than those inflicted on Allied bomber formations in their attacks on heavily defended Axis targets in Europe.

In 84 bombing raids in the Mediterranean (11 January 43 - 1 September 44), nearly all of them by night, the Luftwaffe committed 1,309 aircraft. Of this total strike force, they had 158 aircraft destroyed by anti-aircraft and night-fighters, eight probably destroyed and 13 damaged. Fighters brought down 73 enemy aircraft; guns 85. Fighters probably destroyed two and the guns six. Fighters damaged eight, the guns five.

Damage inflicted in these raids generally was negligible, except for the freak attack on Bari in which two exploding munition ships destroyed 62,000 tons of shipping, and the attack on two Corsican airfields where substantial numbers of our grounded aircraft were destroyed and casualties inflicted on military personnel.

The peak of the enemy's effort against land targets and shipping in harbors was reached in May 1943 when 21 raids were carried out. The scale of effort rapidly declined after that until in June, July and August of this year, over a 90-day period, not a single attack was attempted. Commencing in February 1943 the scale of effort by months was as

DECLASSIFIED

follows: February 7, March 9, April 14, May 21, June 16, July 1, August 9, September 2, October 3, November 6, December 2. And in 1944 the number of raids dropped to lower levels: January 2, February 0, March 3, April 1, May 4.

The relatively small damage caused by this not inconsiderable total effort reflects both the strength of the defenses maintained and the weakness of the Luftwaffe's long-range offensive air arm. The attacks seldom were pressed home with great determination and vigor and bombing on the whole was extremely inaccurate. No improvement in accuracy, such as that taking place at the same time in Allied bombing forces, was discernible as the war in the Mediterranean progressed. There was, however, great improvement in the skill and in the devices employed to elude fighter defenses, and in the closing stages of this war Allied night-fighters and ground radar units had increasing difficulty with the enemy's implements for frustrating interception. These included the generous use of window and the employment of tail-warning devices. In spite of this the loss ratio of more than 12 percent made the attacks uneconomical, particularly in view of the usually slight damage inflicted on Allied installations.

In April 1943, 146 enemy aircraft participated in the 14 raids on Northwest African ports. Twenty-four of the raiders were destroyed or probably destroyed and relatively little damage was done to compensate the enemy for these heavy losses.

In spite of these rebuffs, the Luftwaffe returned in heavier force in May to carry out 21 attacks. In the first two weeks of the month there were attacks on Bone, Djidjelli and Algiers by formations of from seven to 25 aircraft, but bombing was poor and singularly little damage was done. In the third week of May the enemy attacked Algiers on the 13th for the second night running, Bone on the 14th, 15th and 16th, Djidjelli on the 17th and 18th and Oran and Arzew on the night of the 18th. In each of this series of raids, 12 to 30 enemy aircraft took part, and fourteen were destroyed, six probably destroyed and five damaged.

Italian SM 79s joined the Luftwaffe's aircraft in attacks on Tunisian ports during the last week of May, suffering about the same rate of casualties. Attacks were made on Bizerte (27/28) on Sousse and Bone on 28/29, again on Bizerte on the 29/30 and on Sousse for the next two nights. Little damage was done in these night raids and the enemy suffered few losses.

Enemy raiders were active again in June, making 16 attacks on Northwest African coastal cities. They sent 212 aircraft against these targets, with an average of 13 participating in each raid. Attacks were made on Algiers, Djidjelli, Phillipville, Bone, Bizerte and Sousse. MACAF night fighters destroyed 12 enemy aircraft and AA destroyed 6. Damage was not great and in the main raids on Algiers, Djidjelli, Phillipville and Bone the enemy lost more than 10 percent of his strike forces.

In July the Luftwaffe virtually abandoned its bombing effort against the Northwest African ports. The only raid in the month was that on Bizerte. This effort marked the employment of new tactics in the Mediterranean with the Luftwaffe attempting a concentration of power through the combination of a single large strike force. The strategy partially achieved the purpose of saturating the defenses, in that only one enemy aircraft was destroyed by MACAF fighters and three by the guns (a rate of loss considerably lower than that of the smaller raids in June) but the damage also was slight.

In August the Luftwaffe stepped up its bombing effort in the Medit-

erranean (nine attacks) striking at new targets---some of the ports in Sicily to which the MACAF defense effort by now had become extended. Thirty enemy aircraft attacked Palermo on the morning of August 1 in a raid in which the enemy lost five aircraft to fighters and two to guns, but succeeded in hitting dumps and other targets with 20 to 30 bombs. Thirty aircraft approached Palermo on the 5th of August but did not complete an attack. Bizerte was raided by 30 aircraft on the 7th and shipping in the harbor suffered some damage; defenses accounted for three of the attacking planes. The raid of 16/17 August on Bizerte was marked by the extensive employment of window. More than 75 aircraft came in in two waves, from 10,000 feet to the deck and attacked targets for 70 minutes, sinking an LCI, firing an oil dump, killing 19 military personnel and wounding 175, for the loss of two Ju-88s to fighters and eight to ground defenses (claimed). This was followed by a 60-aircraft raid on the 18/19 of August in which little damage was done and two He-111s were shot down. Palermo was attacked by 20 aircraft on 23 August. Two Ju-88s were destroyed by aircraft and the guns got two aircraft in this attack.

Algiers got its last serious bomb attack of the war on 27/28 of August. Forty enemy aircraft came in to a point 30 to 35 miles North of Algiers and split to attack in two waves. Some property damage was done and civilian and military casualties were inflicted, but the attack on the whole was not skilfully or vigorously pressed home and the strike force seemed to have been confused in an effort to follow a pathfinder technique which later was to be utilized frequently in convoy attacks. In these August operations the Luftwaffe lost 15 aircraft to fighters and 26 to anti-aircraft defenses, or about 14 percent of the aircraft engaged.

In September of 1943 the Luftwaffe made only two attacks on MACAF targets, but the effort was notable for the first employment of one of the new "secret weapons", the new glider bombs, in a raid on Ajaccio in daylight hours of 24 September. This effort was made by 10 Do-217s and one Ju-88 and of this force French Spitfires shot down five. The other six were so badly harried by the Spitfires that only three were able to drop their bombs. One of these missiles hit an LST, destroying a valuable cargo, and another barely missed a French destroyer. The French Spitfires broke up a raid which the Nazis had carefully planned on the assumption that no fighter defenses would be encountered. The other September raid was against Bizerte on the 6/7 of the month and was notable for the success with which the Nazis employed window, using it in such quantities that the radar scopes were saturated and defense made difficult. Five He-111s were knocked down by night-fighters, nonetheless, and the guns got four more.

In October the Nazis mounted three raids, attacking Ajaccio and Naples, and did not go near the Northwest African coast. In one Naples attack (23/24 Oct.) a merchant ship was set afire by a bomb. Another attack on Naples (15th) caused little damage.

In November six raids were carried out, but the average number of aircraft employed was notably less than in previous months. Naples was attacked three times: on the 1st November when a cable ship was hit, on the fifth when shipping in the harbor was again damaged, and on the tenth when an MV was sunk in the harbor. Bari was attacked on the night of 6/7 but no damage was caused. La Maddalena was attacked on the 10th with little effect. Bastia and La Maddalena were attacked on the 24th in raids which sank a motor boat and caused some civilian casualties.

On the 2nd December, in a raid on Bari, the Luftwaffe scored what probably was its biggest bombing success of the Mediterranean war, coming in low with thirty aircraft and dropping torpedoes and mines which hit

two munitions ships, the explosion of which started fires and explosions that destroyed 17 ships totalling 62,000 tons and including as estimated 38,000 tons of cargo. Communications difficulties, incomplete liaison between the innumerable service branches involved in the just-formed defenses, and the enemy's skillful employment of window (together with the coincidence that munitions were aboard the two ships which were directly hit) accounted for the spectacular success of this raid. The Luftwaffe attempted to repeat on 13 December but an effective smoke screen was up and the bombs were all dropped into the sea. The Bari raid, however, gave the month the most disastrous ship-loss record of the Mediterranean operations.

The bombing of Catania and Augusta, on the night of 1st January, was the only Luftwaffe effort against ports that month. Catania got only a few bombs, most of which landed in the harbor, but Augusta was bombed by ten aircraft from 7,000 to 8,000 feet. Four bombs hit the W/T station and a stick landed across the mess of a CA regiment and on a Bofors gun sight killing 11 and injuring 16. AA claimed two enemy aircraft but night-fighters, bothered by window, got no kills.

No MACAF cities were attacked by the Luftwaffe in February.

In March, however, there were two quite destructive raids. On the 15th, 20 plus aircraft raided Naples, coming in overland to confound defenses, and dropped bombs which killed one hundred civilians, three military personnel and a nurse, hit a merchant ship, sank a British tug and damaged other shipping. They also dropped fragmentation bombs on Capodichino, destroying one P-39 and damaging 17. One enemy aircraft was shot down by guns and one Ju-88 by a Mosquito night fighter.

On 28th March, Vis was attacked by 30 enemy aircraft which got direct hits on a motor boat and on marine headquarters, killing six military personnel and wounding seven. Damage also was caused to civilian property and bombs landing near an ABE Station and the landing strip handicapped defenses. No enemy aircraft were shot down.

April had but one attack, on the 24th, when 30-40 enemy aircraft raided Naples dropping fifty to sixty high explosive bombs about the city and on Capodichino airdrome. There were no shipping losses and damage was limited to MT about the city and buildings, and there were some civilian casualties. Efforts at interception by night fighters were not successful as the large amount of window employed caused great interference. Guns claimed one enemy aircraft destroyed.

In May the Luftwaffe made its last air efforts against MACAF ports, airdromes and harbour-shipping and this final fling was notable for heavy losses inflicted in attacks on Corsican airfields.

The first attack of the month was on the 11th when ten plus enemy aircraft attacked Vis and got bomb hits on a petrol dump of 200 barrels.

On the 12th, twenty to thirty enemy aircraft carried out a successful attack on Poretta airfield in Corsica, eluding defenses to drop 250-pound delayed action and HE bombs which killed nine and injured 41 persons and destroyed 14 Spitfires and a B-24 and damaged 70 other aircraft. Many MT also were destroyed. Guns claimed one enemy aircraft destroyed, one probable and one damaged but night fighters, again bothered by window, made no claims. The airfield at Alesan was attacked the same night by fifteen enemy aircraft. This attack resulted in the death of fifteen military personnel and injury of 92. Eight B-25s were burned out, 12 severely damaged and a fuel dump blown up. AA claimed three enemy aircraft destroyed and one probably destroyed. Beaufighters of 417th Squadron damaged two He-177s.

The May effort, even though successful in terms of the enemy's losses and the damage inflicted, was not followed by further efforts in June, July and August, when the ports of the Western Mediterranean in Allied hands were packed with shipping utilized in preparing for or carrying out the invasion of Southern France. Throughout this three-month period, ports and harbors remained free of enemy bombers.

As the impotence of the declining Luftwaffe became apparent, the tactical dispositions to obstruct possible attack were contracted, and ground establishments and squadrons were released in increasing numbers for offensive operations by MACAF, or by other Commands to which units previously required for defense were rapidly transferred.

## HISTORY OF RADAR IN M.A.C.A.F.

### "Ground Radar"

When the NORTHWEST AFRICAN COASTAL AIR FORCE was formed in March 1943, it was laid down that the Northwest African Tactical Air Force would be responsible for Radar from the front line up to 50 miles behind this line, and NACAF was to be responsible for the defence of the remainder of the territory in North West Africa. At this time the coast was already covered from the West of Oran to East of Bone by a chain of American and British stations. In reading the following history it should be remembered that in Coastal Air Force any station equipped with PPI has been used for the combined functions of reporting and controlling. British and American Radar units have been completely intermixed, the selections having been made according to availability and the suitability of the equipment to meet the operational requirement.

During the period April-May, 1943, the enemy was concentrating attacks against the ports of Algiers, Oran, Phillipeville, Bizerte and Bone. These attacks were made at last light or during the night by aircraft approaching at approximately 8,000 feet. Mobile GCI and MRU coverage was provided at these ports, and the remainder of the coast was covered by COL stations.

Towards the end of this period as the enemy's approach at medium heights was proving expensive to him, he started to come in flying very low, and climbing to make his attacks. It was decided, therefore, to site COL stations along the North African coast as high as possible in order to obtain the maximum amount of coverage, and plans were drawn up and initiated to use fixed American COL stations to meet the commitments.

On 26 May, 1943, No. 242 Group, which had been responsible for the Bizerte-Sousse area was transferred, complete with its Radar units, to NACAF, so that Coastal Air Force became responsible for the coverage of North Africa from Spanish Morocco to the Tripolitanian border, and also for the Casablanca area. Commitments were further expanded with the capture of Pantelleria and Lampedusa in June, and mobile COL stations were installed, from which controlling was carried out.

With the build up for the invasion of Sicily, additional mobile units arrived from the United Kingdom and from the Middle East Command. These stations were initially under the control of Tactical Air Force, but NACAF became responsible for the defence of Sicily in August, and additional units were transferred from Tactical Air Force and the cover was adjusted to meet Coastal's defence commitments. Immediately upon the invasion of Italy, it was decided that No. 210 Group, which was then under Middle East, and responsible for the area Benghazi-Tripoli should be transferred, complete with its Radar units to meet the needs of the expanding territory of NACAF.

During August, the enemy continued his policy of attacking the ports and also carried out an attack against a convoy between the North African coast and Spain. With the occupation of Sardinia and Corsica in September, Coastal Air Force's territory expanded further, and mobile COL units were transferred from North Africa, where American fixed COL stations were by now inatalled.

September saw the introduction of "Window" by the enemy, and from thence onwards in all his attacks against land targets the enemy employed "Window", so that successful control of night fighters from COL/GCI stations became more difficult. Experiments were initiated which proved successful, of using information from MRU and Army GL's which were unaffected by the type of "Window" used.

In October the enemy began in earnest his attacks against convoys off the North African coast. His strike force consisted of several formations of torpedo bombers and glider bombers and all aircraft flew very low in making their approach. To counter these tactics North African Radar was further strengthened by mobile British units especially transferred from the Middle East, and a successful effort was made to improve operational efficiency along the coast.

By November, 1943, MACAF's territory had expanded in Italy, to include Naples and the Foggia area. Units to cover this expansion were withdrawn from Sousse, Bizerte, Lampedusa, Pantelleria and Sicily since the threat in these areas was by now small. Throughout the winter months the enemy concentrated his effort against our convoys off the coast of North Africa, and launched, on an average two attacks per month. With the improvement in technical and operational efficiency reasonable tracking of low flying reconnaissance aircraft used prior to an attack was obtained and the warning of an actual attack was generally adequate to allow the control stations to give defending fighters a good chance of success.

The enemy continued to make sporadic night attacks against ports all through the winter, Bari being attacked twice during December, Catania and Augusta in January, and Naples in March and April.

In March, Coastal Air Force extended its territory into Yugoslavia and became responsible for the Isle of Vis and Li's were put in to provide a measure of air warning for the island. Night bombing attacks were in fact made against Vis in late March and early May. Reasonable warning was given.



In April, 1944, the enemy changed his tactics in convoy attacks. He began to attack by night, using a complicated technique making use of pathfinders and employing special flares for convoy illumination. Excellent warning was obtained from the MACAF Radar chain, although the percentage of successful interceptions was less since controlled interception problem became more difficult and the enemy aircraft had by now a healthy respect for our night fighters and took the most violent evading action.

By this time, British high-powered centimetre equipment, which had been introduced in small quantities in late winter was beginning to play an important part in the detection and interception of the low flying day and night reconnaissance aircraft, which were active throughout the entire period.

During the spring and early summer the Radar in Corsica was further improved in anticipation of the invasion of Southern France, and by August a total of 30 British and American Radar stations were operational in this one island.

At the end of May, the Allied armies, which had been almost stationary along a line from Cassino to Penna Point, broke through, and Coastal Air Force became responsible up to a line joining Grosseto and Pescara. Mobile units for the defence of Rome and Civitavecchia and the shipping routes to forward ports were quickly transferred from Malta, Sicily, the toe of Italy and North Africa.

From the middle of May onwards, the enemy ceased to make any effort to attack ports or land targets, although against shipping routes he continued to make regular low flying reconnaissances, on which radar information enabled a number of successful interceptions to be made. Excellent tracks were provided on the occasional high-flying photographic day and night reconnaissance, which the enemy undertook against the principal ports, the most outstanding being a controlled interception at 168 miles, from Malta.

During June, July and August considerable effort was expended in forming and training British and American Radar units for the defence of base areas in the South of France. The latest types of unit were selected and trained, but the scale of enemy effort against the bridgehead in the South of France proved so small that Tactical Air Force were able to release many of their units and it was unnecessary to employ any MACAF units other than the special high-powered centimetre equipment.

The last attempted convoy attack took place on 11/12 July, and from thence onwards MACAF's Radar had only to contend with occasional night reconnaissances.

At the time of the formation of Coastal Air Force there was a total of 22 British and 15 American operational stations. The maximum was reached in July with 77 British and 46 American stations. This peak was reached on account of the vast amount of invasion shipping which had to be protected and when it was especially important to deny the enemy the knowledge derived from reconnaissance flights. When the successful landing had been made and with complete air superiority achieved, the work of this British-American Radar chain, which had been so closely dovetailed, was finally completed. By mid-September there were only 30 British and 10 American stations.

As outlined above NACAF came into being at the time the enemy was withdrawing from Tunisia, which meant that Radar-equipped squadrons had to be deployed along the full length of the North African coast from the Atlantic to Cap Bon. Two night fighter Squadrons (Nos. 600 and 255 RAF) equipped with Mk. IV AI were used on offensive patrols over NE Tunisia and the Straits, and the third squadron (No. 153, RAF), mostly equipped Mk. IV AI with a few aircraft fitted Mk. VII, was based in the Algiers area. During this time the enemy, during his nightly raids on the ports, was approaching at about 8,000 feet, and good successes were achieved. Convoy escorts and anti-submarine patrols in the Western Mediterranean were carried out by two squadrons of Hudson aircraft fitted Mk. II ASV (Nos. 500 and 608 RAF) with the squadrons and detachments stretched from Tafaraoui (Oran) to Bone, which called for a terrific effort on the part of aircrew and ground crews alike. The approaches to the Mediterranean were covered by aircraft from Gibraltar and by the 2037 Anti-Sub Wing at Port Layauty, whose Liberators were fitted SCR-517 centimetre Radar.

The beginning of May saw the commencement of fitting Mk. III IFF in this theater; unfortunately this conversion was not completed until a whole year had elapsed. Early June 1943 saw the arrival of two American Beaufighter night-fighter squadrons (Nos. 414 and 415, USAAF), equipped Mk. IV AI, and the promise of two more, whilst a further RAF squadron (No. 219) arrived, having been trained on Mk. VIII AI in the UK. Arrangements were made to equip three RAF squadrons with Mk. VIII AI for defensive work, and leave the Mk. IV AI aircraft free to continue their offensive tactics over enemy areas. The GR side was strengthened in early June with the arrival of No. 458 Squadron (RAAF), and No. 36 Squadron (RAF), both equipped T.B. Wellingtons and Mk. II ASV. A small detachment of No. 172 Squadron (RAF) with Mk. III ASV (centimetre) also appeared to assist in the anti U-boat campaign, so that by July, Coastal Air Force had four GR squadrons to cover the Western Mediterranean.

By July-August 1943, Coastal Air Force had three RAF Squadrons of night fighters equipped Mk. VIII AI and two US squadrons with Mk. IV. No. 600 Squadron, with Mk. IV AI, had been transferred to Tactical Air Force, and with a Coastal Air Force Mk. VIII equipped squadron had moved up to Sicily. The enemy now started making low flying approaches, and the need for radio altimeters became evident with this marked change in the enemy's tactics. An experimental fitting of radio altimeter (AYD) was made and additional sets of radio altimeter were acquired from American sources until one night fighter squadron and one Leigh-Light Wellington squadron were complete. Leigh-Light Wellingtons with Mk. III ASV started to arrive in early July and the conversion of No. 36 Squadron (RAF) was begun. The introduction of centimetre airborne equipment necessitated the conversion training of Radar mechanics and the original class on Mk. III ASV in Algiers was accordingly begun with an officer and eleven mechanics.

In November, Malta came under the CAF sphere of influence and provided one Beaufighter Squadron, (No. 108, RAF) and one Mosquito night fighter squadron (No. 256, RAF), together with one Wellington squadron, equipped Mk. II ASV (No. 221, RAF).

The next period, September-October 1943, saw the transfer of one US night fighter squadron (No. 415) to Tactical Air Force, and the commencement of conversion of the three remaining squadrons in MACAF to Mk. VIII AI. By November two of the American squadrons had been completed and a third started. This gave CAF six Mk. VIII AI equipped night fighter squadrons, together with one Mk. IV and two night fighter squadrons in Malta partially equipped Mk. VIII AI. November also saw the arrival in the North African theater of Ventura aircraft fitted with Mk. VIII ASV. These were eventually used to re-equip No. 500 Squadron (RAF) Hudsons for convoy escort and A/S patrols.

By January 1944, Coastal Air Force had acquired seven ASV squadrons, three Mk. II ASV, 2 Mk. III ASV and one with Mk. II ASV Hudsons re-arming with Mk. VIII ASV equipped Venturas. Night fighter squadrons consisted of four British and three American squadrons covering North Africa, Malta and Sicily. The air sea rescue organization was expanded with the arrival of Warwick aircraft. Two squadrons of Walrus aircraft and one of Warwicks were available by March and since that time Warwicks equipped Mk. II ASV have introduced in all three squadrons. The Mk. II equipment has been used as a navigational aid, being particularly useful in homing the Warwick to another aircraft circling the dinghy position.

The GR program in CAF reached its peak in June 1944, when two Mk. III ASV squadrons, two Mk. VIII ASV (ASD) squadrons and seven Mk. II ASV squadrons were operating, one of these being a French Naval squadron of Walrus aircraft (Mk. II ASV) based in Corsica and one squadron of R.P. Beaufighters.

With the decline in U-boat activity, the measures to combat this menace could be reduced, and thus the two original GR squadrons (No's 500 and 608, RAF), temporarily folded up and transferred from Coastal work. This left CAF with two Leigh-light Wellington Squadrons, one Mk. II ASV Wellington squadron, two RP Beaufighter squadrons (Mk. II ASV), and two SAAF squadrons of Ventura aircraft (Mk. VIII ASV) to guard the convoy routes and carry out offensive operations against enemy shipping.

Night fighter activity turned largely to the offensive and upon the successful landing in Southern France the strength of these units has been steadily reduced, one squadron being transferred to the Middle East and one rolled up completely; the remaining squadrons have been reduced in aircraft strength.

Detailed results of the achievements of our aircraft in the sinking of U-boats and the destruction of enemy aircraft will be found elsewhere in this issue.

It is worthy of note that during the whole expansion period of Radar-equipped squadrons in Coastal Air Force and the introduction of three radically new types of equipment, the Radar Conversion School was able to supply an adequate turn over of trained mechanics to maintain these equipments, under difficult conditions. In addition to giving conversion courses to practically all airborne Radar mechanics in CAF the school has trained mechanics for squadrons in Tactical Air Force and the various MU's throughout the command.

# AIR SEA RESCUE

The Air Sea Rescue service, like all other branches of M.A.C.A.F., has been a steadily growing organisation with its area of operations extending as the Allied armies and Air Forces moved forward. From the comparatively small area of the Northwest African coast, the present area has expanded to the whole of the Western Mediterranean and the Adriatic.



Down to the end of August 1944, a total of 6856 sorties have been flown by aircraft on Air Sea Rescue missions. The number of sorties by High Speed Launches is not available. During this period, a total of 1944 lives have been saved. This figure includes all the rescues in which the Air Sea Rescue organization as a whole has played any part. 1260 of these were Allied aircrew 59 were Axis personnel and 625 were personnel from ships sunk.

A most important part was played by Air Sea Rescue during the various invasions. In the two week period covering the invasion of Sicily, 45 lives were saved. In one week of the Italian invasion 27 lives were saved and in two weeks of the invasion of Southern France 48 lives were saved.



In a review of this nature it is not possible to deal in any detail with the vast number of individual rescue incidents. This vital work has been carried out with unfailing skill and keenness on the part of all, in all types of weather and very often in the face of enemy fire. The figures themselves show the success with which these efforts have been rewarded.

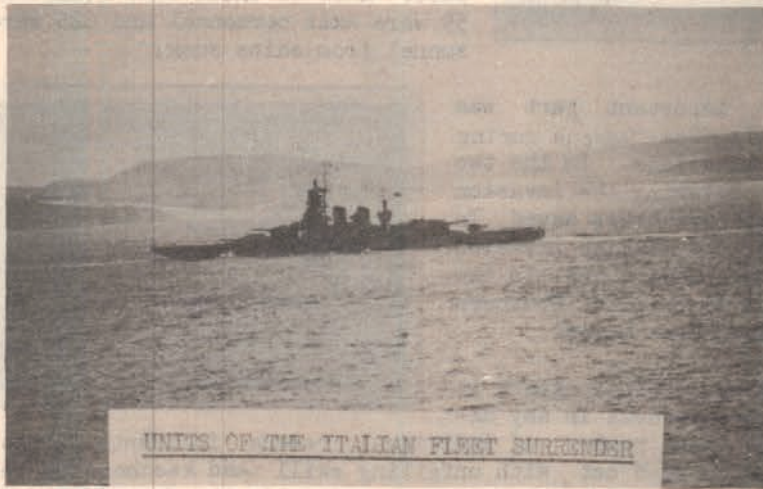


The photographs inset show incidents in one of Air Sea Rescue's biggest days. On the 17th August 1943, the search began for the crews of seven B-17s reported down in the sea after the attack on the Messerschmidt factory at Regensburg in South Germany. The B-17s were on their way to land in North Africa, having started from England. The search continued day and night for three days with Beaufighters, day

fighters, reconnaissance and anti-submarine aircraft, Walrus and Catalina aircraft, and H.S.Ls. The search involved 67 aircraft and many H.S.Ls. Forty-two members of the crews were rescued.

DECLASSIFIED

# A LOOK BACK



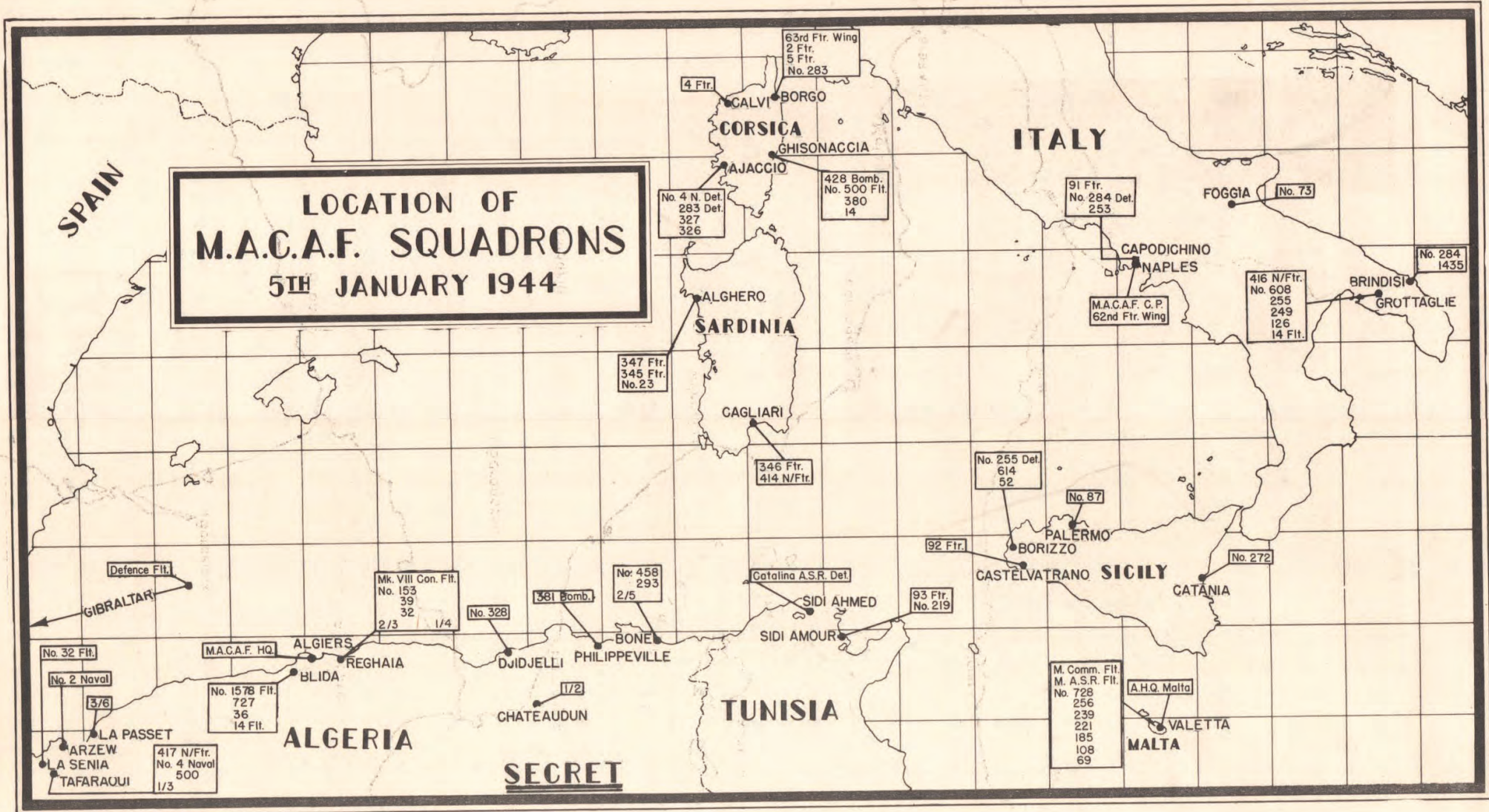
UNITS OF THE ITALIAN FLEET SURRENDER



U-BOAT SUNK BY 608 SQUADRON WITH ROCKET PROJECTILES ON THE 28th MAY 1943.

DECLASSIFIED

**LOCATION OF  
M.A.C.A.F. SQUADRONS  
5<sup>TH</sup> JANUARY 1944**



**SECRET**

DECLASSIFIED



DECLASSIFIED

