

WARPAINT SERIES No. 41

Fairey FULLMAR

BY GEOFFREY BUSSY

Fairey Fulmar Mk.II DR673. This view shows the upper surface camouflage scheme and the navigator's seat in the rear cockpit. No codes were used on this aircraft but it is thought to belong to 835 Squadron during its career and was converted to night fighter standard.





Above: The first production Fulmar Mk.I N1854 was civil registered as G-AIBE ater the war and used by Fairey as a two passenger communications aircraft. It was converted to a Mk.II by the change of engine to a Merlin 30. The aircraft was returned to the Fleeet Air Arm as N1854 and although in a non-flying condition is now on display at the FAA Museum, Yeovilton. (via Ray Sturtivant)

Fairey Fulmar specification

Fairey Fulmar Mk.I

Dimensions:

Span: 46 ft.4 ins. Length: 40 ft.2 ins, height: 11ft 6 ins (tail down over propeller) wing area: 342 sq ft.

Power plant:

One Rolls Royce Merlin VIII having 1,080 hp from sea level to 1,000 ft at 3,000 rpm.

Empty weight: 6,915 lbs: Maximum loaded weight 10,700 lbs.

Performance:

Maximum speed 265 mph at 7,500 ft 230 mph at sea level. Maximum diving speed: 450 mph. Patrol endurance: four hours with reserves for combat. Time to height: 5,000 ft 4 mins 20 secs. 10,000 ft in 8 mins. Ceiling: 21,500 ft.

8 x .303.machine guns in wings with 750 rounds per gun. 8 x 20 lb or 25 lb high explosive anti-personnel bombs

Fairey Fulmar Mk II

Dimensions:

Span: 47 ft.4 ins.; length: 40 ft 2 ins; height: 11 ft 6 ins.; wing area: 342 sq ft.

Power plant:

One Rolls Royce Merlin 30 having 1,300 hp from sea level to 1,000 ft at 3,000 rpm

Empty weight: 8.650 lbs, Maximum loaded weight: 10,350 lbs clean. 60 Imperial gallon external tank: 10,900 lbs.

Performance: Max speed: 266 mph at 9,600 ft. 259 mph at 9,000 ft. 245 mph at 15,000 ft. Patrol endurance: 5hrs 30 mins with reserves of 155 Imperial gallons internal and 60 gals external. Strike radius: 220 miles with 1 x 500 lb bomb and full internal fuel. Time to height: 5,000 ft in 3 mins 15 secs, 10,000 7 mins 10 secs, 15,000 ft 12 minutes. Ceiling:23,900 ft.

Armament:

8 x .303 machine guns with 1,000 rounds per gun or 4 x .50 machine guns with 170 rounds per gun. 8 x 20-25 lb or 1 x 500 lb semiarmour piercing bomb below fuselage.

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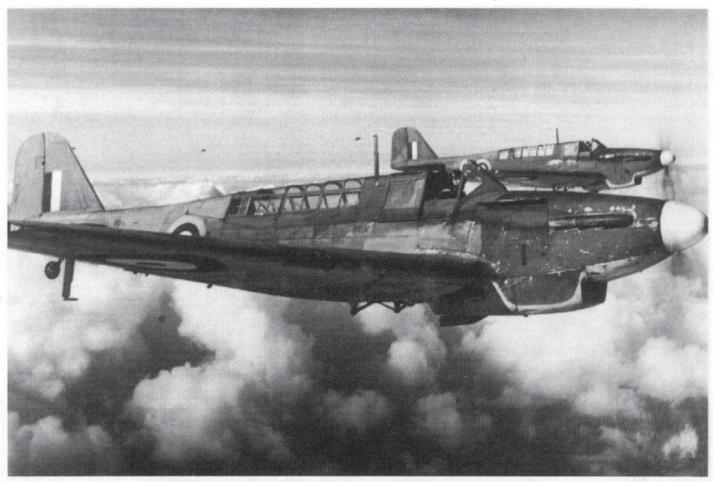
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Fifth and final pre-production Fulmar prototype N1858 in 1940. The aircraft is fitted with a trials installation on the wing trailing edge connected to a Fairey-Youngman cruise/dive brake flap Below: Fulmar Mk.I N1957 of 807 Squadron when based at Worthy Down in 1940 (MAE)



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Fairey FULMAR

By Geoffrey Bussy

Poor Fleet Air Arm! The war was then several months old and naval fighter pilots had to fight Messerschmitt Bf 109s and chase the Luftwaffe's fast twinengined bombers on their Sea Gladiator biplanes or Skua fighter-dive-bombers. Not an easy job, even for skilled and determined crews. Fortunately, the summer of 1940 saw the arrival of a new monoplane fighter: the Fairey Fulmar.

It looked like a great two-seat Hurricane with Merlin engine and eight guns but with an airframe which was of stressed-skin all-metal construction. The Fulmar was as fast as the Hurricane at low level but suffered from a very poor rate of climb. Unfortunately, for anyone who knew the RAF's aircraft, the Fulmar reminded of the Fairey Battle light-bomber. This was not a particularly good ancestry for a fighter since the Battle was fleeced during May 1940 by the Luftwaffe's fighters and flak. Whatever, the Fulmar provided the FAA with a valuable fighter at a time when nothing better was available in the

The forerunner of the Fulmar was the Fairey P.4/34 which made its first flight on 19 April 1937 It was conceived as a light bomber alongside the Fairey Battle but was not accepted by the Air Ministry who opted for the Hawker Henley. (FAA Museum)

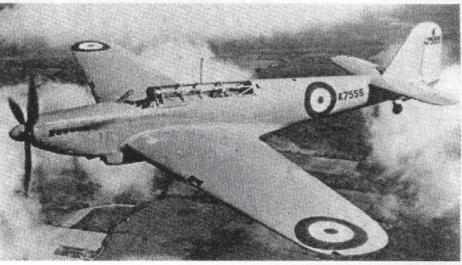
time when waiting of the navalisations of Hurricanes and Spitfires and of the delivery of sturdy US fighters.

The Fulmar was descended from the P.4/34; a light and fast bomber that had inherited its general shape from the Battle. Specification P.4/34 had been issued on 12 November 1934 and called for a light fighter-bomber intended to replace the Hawker Hart. The main requirements concerned its high-speed performance in order to evade enemy fighters and its ability to deliver 500lb of

A pair of Fulmar Mk.lls above the clouds. Both were part of 759 Squadron when based at Yeovilton. This unit was part of some 30 used by the FAA for a variety of training purposes from arget towing to pilot conversion. Most were shore based but frequently visited aircraft carriers as part of their duties. (White)

bombs over 600 miles. The single-engined aircraft was to carry out day-bombing, divebombing and reconnaissance missions, as well as to act as a fighter-bomber.

Fairey's proposal was designed by Marcel Lobelle. It appeared as a scale-down and lighter Battle. Externally it differed from its ancestor by a cleaner fuselage, featuring a canopy that completely merged into the rear fuselage. The tailplane was moved forward of the rudder and the undercarriage wholly retracted into the wings. The other contender to the P.4/34 programme was the Hawker Henley. Although Hawker's aircraft was selected and won an order for 350 aircraft, the



FAIREY FULMAR WARPAINT PAG



Fairey P4/34 K7555 seen at Heston aerodrome shortly after rollout in April 1937. It was powered by a 1,030 hp Rolls Royce Merlin F in its initial form which was later changed to a Merlin VIII. Because it was stressed for dive bombing and had a long range it was an ideal choice as a Fleet fighter to replace the Skua. (MAP)

Henley never saw operational service in the RAF as a light bomber but was relegated to second-line units for target-towing duties.

Both Hawker and Fairey were awarded a contract for two prototypes. The first Fairey prototype, serialled K5099, made its initial flight on 13 January 1937 in the hands of Fairey's chief test pilot, C.S. Staniland. It was powered by a 1,030 hp Rolls-Royce Merlin F, which was later named Merlin I before production was launched. K5099 ended its life with the RAE (Royal Aircraft Establishment). being used to test its capacity to sustain damage when flying into barrage balloon wires. Flight Lieutenant A.E. Clouston flew the prototype right into light cables and gathered valuable data for the use of barrage balloons. The only protection available for the brave pilot was steel bars fitted over the canopy. Speed and wire length increased as the trials progressed, only stopping when the main spar was severely cut.

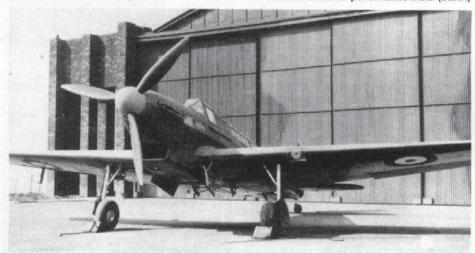
The second P.4/34 prototype, serialled K7555, took to the air for the first time on 19 April 1937. After the usual tests made by Fairey, the aircraft joined the Aeroplane and Armament Experimental Establishment at Martlesham Heath on 24 September 1937 for a general appraisal of its flying qualities. The prototype remained in the hands of the A&AEE pilots until 11 October. The aircraft appeared easy and pleasant to fly. The main criticisms concerned the extreme directional stability and the very heavy rudder, which did not allowed flat turns as required for level bombing.

Nevertheless, there was no hope of production for the RAF as the policy for the light bomber had then changed and Specification P.4/34 had been dropped before any prototype could fly. Lobelle saw in a fighter variant the opportunity to make the most of its design and studied a fighter based on the P.4/34. Instead of underwing racks for bombs, provision for guns in the wings was given. The FAA was then in an urgent need for a modern naval fighter as the Blackburn Skua would prove disappointing in the fighter role. The Danish Navy also showed interest for such a fighter and planned to build it under licence but the war put an end to this project.

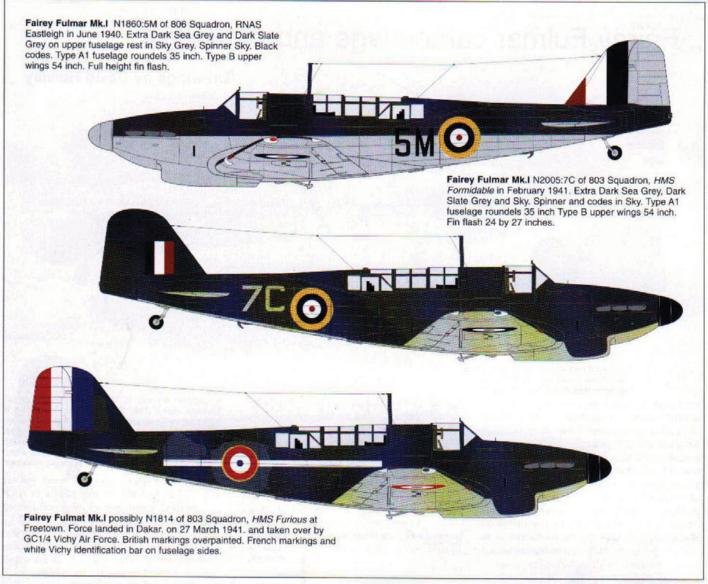
K7555 was chosen to act as a mock-up of the future naval fighter. After initial trials at Martlesham Heath, the second prototype returned to its makers for modifications, including wing span reduction (by eight inches) and smaller ailerons. Ejector exhausts were added. In 1939, it was fitted with a Rolls-Royce Merlin VIII engine. In this new configuration, the prototype returned to the A&AEE in April 1938. Test pilots noticed no particular change to the general handling, except it was more difficult to stall. At the end of its life as a mock-up of the future Fulmar, K7555 served as a testbed for the Firefly. The



Above: The first production Fairey Fulmar Mk.I N1854. Camouflage colours consisted of Dark Green and Dark Sea Grey on the upper surfaces and Sky undersides. Pre-war two-colour roundels were used. (MAP) Below: The second production Fulmar Mk.I N1855 seen at A&AEE for performance trials. (DERA)



Fairey Fulmar camouflage and markings **Drawings by David Howley** FAIREY FULMAR COLOUR KEY White Yellow Extra Dark Sea Grey Dark Slate Grey Medium Sea Grey Fairey P4/34 K5099 the aircraft from which the Fulmar was developed Originally flown in 1937. Sky grey overall Fairey P4/34 K7555 the second aircraft first flown on 19 April 1937. Sky grey overall. Note short radiator housing Fairey Fulmar Mk.I. N1854. Fulmar prototype, tested at A&AEE Boscombe Down in December 1939. Extra Dark Sea Grey, Dark Slate Grey and Sky Grey. Port lower fuselage, wings and tailplane Night. Type B roundels on fuselage and upper wings Fairey Fulmar Mk.I N1855. Tested at Boscombe Down in May 1940. Extra Dark Sea Grey, Dark Slate Grey and Yellow. Spinner and fin and rudder Sky Grey. Type A1 roundels on fuselage 35 inch. Type B on upper wings 54 inch. Only the white and red of the fin flash have been painted. Fairey Fulmar Mk. I N1892:6K of 809 Squadron, HMS Victorious in December 1940. Extra Dark Sea Grey, Dark Slate Grey and Sky Grey. Spinner red. Type A1 roundels on fuselage 35 inch. Type B on top of wings 54 inch. Fin flash full height approx seven inch widths



prototype received Fairey-Youngman flaps in 1940 and pneumatic brakes the following year.

ENTER THE FULMAR

Early in 1938, Fairey jumped at the request from the Fleet Air Arm for a two-seat fighter and presented a study based on the fighter variant of the P.4/34. Lobelle realised he could save time and money in offering a naval fighter which stemed from the P.4/34. The light bomber had indeed several characteristics that were required for a two-seat fighter intended for carrier operations. The P.4/34 was stressed for dive-bombing and had thus a robust structure which suited a naval aircraft and could withstand arrested deck-landings

and catapult launches. The wide-track undercarriage was also an advantage. Finally, the great range of the bomber was a predominant requirement for the naval fighter.

The naval policy since the early thirties had

Two fully operational Fulmar Mk.lls of 803 Squadron seen in 1942. The aircraft nearest the camera is X6673. Similar to many Fulmar squadrons no individual or unit codes were used on the fuselage. (RAF Museum)



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Parked on the flight deck of *HMS Ocean* in the Indian Ocean in 1942 these two Fulmars belonged to 803 Squadron. The wartime censor has removed *HMS Indomitable* which was in the original picture and whose wake can be faintly seen in the background. No reason could be found as to why this should have been done. Both Fulmars retain their Home Fleet markings. (IWM)

been to call for two-seat fighters. With aircraft flying faster and farther, the Admiralty worried about the ability of a lone fighter pilot to find his way back to the carrier. An Observer, who accurately set the navigation over the sea, or a TAG (Telegraphist Air Gunner), who dealt with the wireless telegraphy set, seemed necessary to control the situation at a time when no homing device was available and radio transmitters were limited in range. In addition, the Admiralty always looked for multi-purpose aircraft due to the restricted number of aircraft a carrier could embark and also to their limited budget. The fighter should also be a reconnaissance aircraft and, when required, carry out shallow dive-bombing attacks.

The Staff was aware that a multi-seat multipurpose aircraft had far inferior performance than a dedicated single-seat fighter, even more when this aircraft was carrier-borne capable. Nevertheless, these shortcomings did not appear to penalize the naval fighters whose primary roles were to protect the Fleet against slow bombers, to escort torpedo/bomber aircraft on long distance flights, and to protect convoys for hours. This sounded logical if considering the Fleet fighters operated over the open sea and stayed out of the way from enemy single-seat fighters. Unfortunately, operations off Norway in 1940 and in the Mediterranean proved the British carriers had to operate within range of enemy aircraft, and the naval fighters had to face not only long-range bombers (which appeared faster than the Blackburn Skua, the standard embarked fighter which was above all a divebut also the bomber) formidable Messerschmitt Bf 109. The Admiralty had then to look in a hurry for high performance single-seat fighters.

Others requirements were a top speed of 265 mph at 10,000 ft and an endurance of six hours at cruising speed (138 mph) or three hours for escort at 175 mph. The new standard in armament was for eight guns of 0.303 calibre, with 400 rounds per gun. The fighter should be able to carry two bombs of 250 lb on racks under each wing. Span of the second prototype P.4/34 had been reduced by 16 inches to fit the naval requirement for a maximum span of 46 ft. Once folded, the main-

plane should not exceed 18 ft.

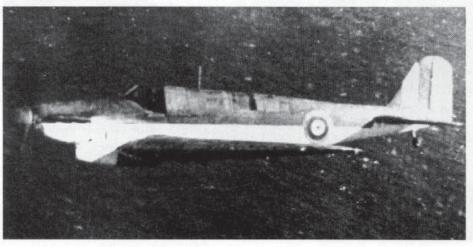
Development of the Fleet fighter that was to become the Fulmar was pursued. Modifications to design a Fleet fighter from the light bomber were rather limited. All necessary naval components were fitted: folding wings, deck arrestor, catapult hooks and dinghy. In addition, the wing was revised to accommodate eight 0.303in Browning guns and larger flaps. Externally, the main difference lay in the canopy, which was then divided into two separate parts and was raised in

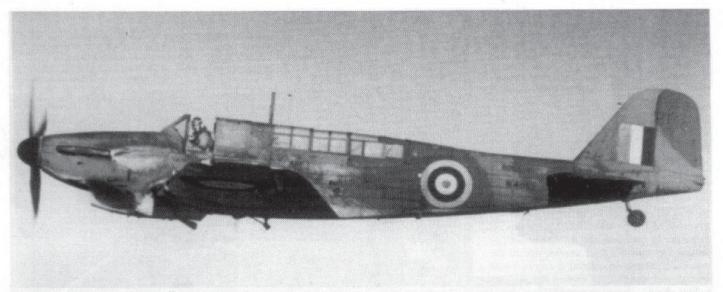
order to improve the forward view of the pilot during carrier operations. Wing incidence was increased by four degrees, giving a better forward view.

Compared with K7555, the Fulmar featured a revised tailplane, with a horizontal empennage fixed lower down. The original Rolls-Royce Merlin I fitted to the P.4/34 prototypes gave place to a Merlin VIII. This version was an advancement of the previous Merlin I, II and III and was specifically dedicated for naval use and for low-level flying, being relatively supercharged. The Merlin VIII delivered 1,275 hp at take-off and was the first Merlin featuring a Coffman cartridge starter.

No provision for a gun in the rear cockpit was made, the Fulmar becoming the first naval two-seat fighter without a rear-gunner. Though, TAGs felt the need for a defensive weapon and sometimes took aboard a Thompson sub-machine gun. The practice did not last as there were drawbacks: difficulty to handle and to stow, no real effectiveness, and injury risk during combat flying. Some TAGs

Judging by the colour scheme which had the lower sides and fuselage undersides in Sky, applied to this Fulmar Mk.I it was taken over the Mediterranean in late 1940 whilst 806 Squdron was stationed there. The aircraft was being flown by Lt. A.J.Sewell at the time. (D.J.Tribe via A. Thomas)





A near perfect side view picture of Fulmar Mk.II N4062. Its identity could not be placed as no individual codes are shown. The fuselage shows signs of considerable weathering and the exhaust streaks are prominent. (MAP)

tried to deter enemy fighters with a Verey pistol or even in throwing rolls of toilet paper into the slipstream.

Fairey presented its fighter study that complied with the requirements of the Naval Staff. Specification O.8/38 was thus issued in May 1938 around Fairey's proposal. As the Fleet Air Arm was in an urgent need for a modern fighter, the Admiralty directly ordered production aircraft from Fairey. A first order for 127 aircraft was placed at the same time as the specification was issued. The company chose to produce the Fulmar in its Heaton Chapel factory and to bring the components to Ringway for final assembly and first flight.

As the sounds of war approached, further orders were placed. However, Fairey was involved in several aircraft designs and production, as well as in erecting the plant at Heaton Chapel, and could not launch Fulmar production before March 1940. Sea Gladiators were thus ordered as a stop-gap measure whilst waiting for Fulmars.

PRODUCTION

Although data had been collected with the modified P.4/34, it was necessary to test the Fulmar and two production aircraft (the first and fifth Fulmars) being selected to act as pre-production examples. The first Fulmar, serialled N1854, was ferried by road to Ringway airfield and made its initial flight on 4 January 1940, with Duncan Menzies at the controls. In May, the aircraft went to the RAE at Farnborough and, the same month, it passed through the A&AEE.

Various minor changes were made to the controls in the design and development of the Fulmar in relation to those of the P.4/34, which had been criticized by Martlesham pilots. Tests at Boscombe Down referred to the controls as being light and responsive, though the directional trim was very sensitive. In general the aircraft was described as easy and pleasant to fly. In spins the nose was well down and a good deal of height was lost in the spin and during recovery. Tests showed the Fulmar to be very steady in dives. During deck-landing trials aboard HMS Illustrious it was found advisable to hold a lot of power so that slipstream could increase rudder and elevator effectiveness, which was otherwise lacking at low speeds. A tendency for the Fulmar to crab bodily to the left during takeoff had been noted.

The second production Fulmar made its first flight on 6 April 1940. A month later, the

Twelve Fulmar Mk.ls of 809 Squadron on HMS Victorious on 30 July 1941 preparing for take off on their first mision against Kirkenes, Norway. Two Bf 109s were shot down but two Fulmars and 11 Albacores were lost during the action. (via Ray Stutivant)



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Combat Air Patrol over the British fleet that took part in the Battle of Cape Matapan. The two Fulmar Mk.Is in this picture were part of 803 Squadron then based on HMS Formidable in March 1941. The ship can be seen on the right of the picture sailing in the opposite direction to the four destroyers also in the picture. (IWM)

aircraft went to the A&AEE at Boscombe Down. The Ministry pilots passed favourable comments. It had no vices and was manoeuvrable at all speeds attainable in level flight, with light and responsive controls. In service with full equipment, the Fulmar became only marginally stable longitudinally, particularly at low airspeeds, due to the centre of gravity being well aft. With the large area flaps lowered and the engine throttled back, the elevator and rudder controls became less responsive due to the change of airflow pattern, but there were no significant changes of trim when the flaps, undercarriage, or radiator flaps were operated.

A substantial improvement was introduced in January 1941 with the fitting of Merlin 30s, with new Rotol propellers and revised exhaust pipes. The Merlin 30 only offered an increase of 25 hp compared with the Merlin VIII. Powered with this engine, the Fulmar did not gain much in speed but its climbing rate was increased, a much needed improvement to intercept shadowers and fast approaching bombers. Externally, the Fulmar Mk.II differed from its predecessor by its larger radiator and oil cooler, with a redesigned cowling. There were also two

The unit code BY-OO has helped identify this Fulmar Mk.II as belonging to 790 Squdron based at Charlton Horethorne. Many pilots and observers prefered to fly with the cockpit and rear hoods open though it must have been draughty especially in winter. (C.G.Hyde)

additional cheek air intakes, generally with a stone guard in front of them.

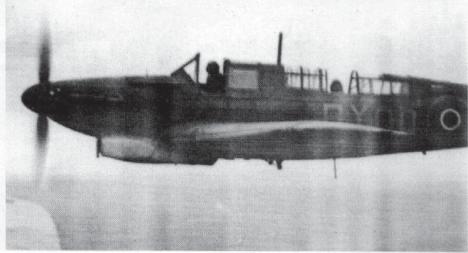
Another way to improve the rate of climb was to save weight. This was achieved by lightening the structure. No less than 350 lb were gained, although other equipment made the Fulmar Mk.II only marginally lighter. Among the other internal modifications were a revised fuel system and modified rudder and trimmer tabs. In addition, the weight saved allowed the Fulmar Mk.II to carry a 500 lb bomb under the fuselage, even though this capacity was not used operationally.

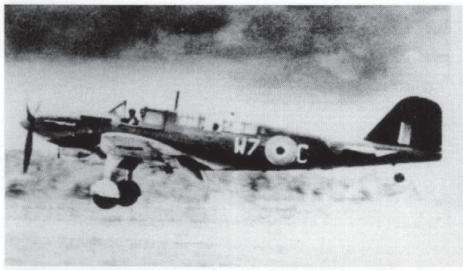
The first production Fulmar, N1854, had been retained by Fairey and was partially converted to Mk.II standard for testing. Fulmar N4021 served as the prototype and made its initial flight as a Mk.II on 20 January 1941. The production did not directly change over and there was a time when Fulmar Mk.Is and

Mk.IIs were being turned out concurrently.

First encounters with enemy aircraft made evident the Fulmar lacked speed but also efficient armament. The solution was to replace the eight 0.303in Browning guns by four 0.50in guns. Despite a greater weight and a lower rate of fire, these heavy machine-guns fired heavier bullets with a better armourpiercing capacity and a longer range. Being able to fire from greater distances was a much needed improvement in the operational conditions met by the Fulmars. Four heavy guns had a firepower about 60 per cent higher than eight 0.303in guns. This installation was not tested before the summer of 1941 though. Plans were made to fit such guns on the production Fulmar Mk.IIs but their availability was low and only a proportion of the last batch built received 0.50in Brownings.

As usual for a pre-war naval fighter-recon-





naissance aircraft, a float-plane version had been required for possible use aboard warships with catapults. The third and fourth Fulmars were selected for completion with floats. Nevertheless, the seaplane Fulmar never materialised as the idea faded away early in 1940.

IN SERVICE

The first Fulmar to reach a FAA unit was N1856, when delivered to 778 Squadron, the Service Trials Unit at RNAS Lee-on-Solent, on 10 May 1940. 778 Squadron had to carry out the operational deck-landings trials. The pilots first practised dummy deck-landings (ADDLs) on the runway at Lee-on-Solent before going aboard HMS Illustrious. The

The Flight Deck Oficer waves forward a Fulmar Mk.II of 809 Squadron on board HMS Victorious in 1942. A close look at this picture shows that it has nose art and is probably the same machine as that shown in greater detail on page 25 and one of the very few Fulmars to be decorated in this way.

first real deck-landings took place on 3 June. Only four landings and take-offs were achieved this day but the Fulmar was considered suitable for carrier operations, with excellent forward view and control during the approach. The only shortage concerned the tendency to crab, a default already highlighted by the A&AEE pilots. This was rather annoying when taking-off from a narrow deck but Fairey partially solved this problem by adopting a lockable tailwheel.

Fulmar production started slowly and it was not before June 1940 that a couple of aircraft could be dispatched to a front-line unit. 806 Squadron, which was flying Skuas and Rocs, was selected. While their newly-commissioned carrier - HMS Illustrious - was delayed due to various installations (including emergency barrier, catapult, RDF antennas, definitive propellers), 806 Squadron undertook the replacement of its Rocs by three Fulmars, which arrived during the first two weeks of June. At this time, HMS Illustrious was ready to sail for her work-up in Bermuda. Along

Fulmars were used, along with many other naval aircraft, for training purposes in the West Indies. This Mk.II belongs to 793 Squadron based at Piarco, Trinidad is identified by its fuselage codes W7:C. The picture, although of poor quality, was probably taken in late 1942 at the time that training facilities were expanding. (MAP)

with Swordfish, only the Skuas of 806 Squadron joined the carrier; the Fulmars stayed at RNAS Worthy Down. A detachment made up of some air and groundcrews continued the partial transformation onto the Fairey fighter and further Fulmars arrived gradually during the ensuing weeks.

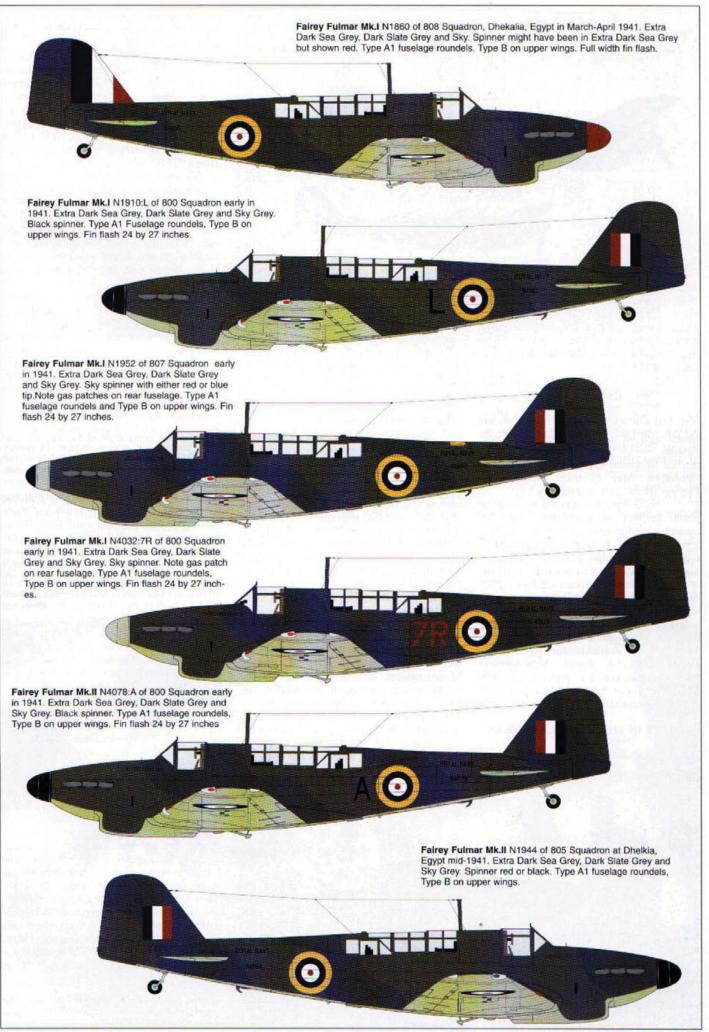
When the *Illustrious* returned home on 23 July, only a handful of Skuas were available as almost all were lost or damaged in accidents during the cruise. Fortunately, the complement of 806 Squadron's detachment at Worthy Down had grown and now reached 12 Fulmars, with the last delivery having taken place on 15 July. The end of the work-up period was marked by the loss of a Fulmar and the death of Sub-Lt H.W. Isherwood, on 11 August.

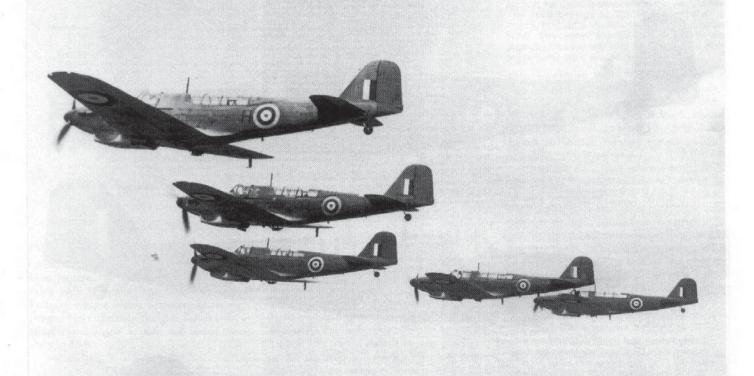
Additional squadrons gradually received Fulmars. 808 Squadron formed on 1 July 1940 at Worthy Down, with a complement of 12 Fulmars. After completing the usual work-up in southern England, 808 Squadron moved north, settling down at RAF Castletown in Caithness on 5 September. The Fulmars ensured protection to the Home Fleet's base and the Moray Firth's shipping lanes. Even though 808 Squadron saw no combat over the area, it gained recognition as being one of the only two FAA squadrons to participate in the Battle of Britain. On 2 October, 808 Squadron left the RAF base for Donibristle, in preparation for an embarkation aboard the *Ark Royal*.

After a slow start, Fulmar production rose enough during the autumn to form further squadrons. The third unit to collect Fulmars was the newly-formed 807 Squadron, also at Worthy Down. It was officially commis-



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sioned with an initial complement of nine Fulmars on 15 September 1940 but soon reached its normal strength of 12 aircraft. In December, three of them joined *HMS Pegasus* for catapult experiments.

803 Squadron was the next unit to obtain Fulmars, on 8 October 1940. The squadron had just returned from an operation aboard HMS Ark Royal in a vain attempt to recover Vichy-held Dakar. While 803 Squadron handed over its Skuas for Fulmars, it was necessary to allocate another fighter squadron to the Ark Royal's Air Group. 808 Squadron, which was by then operational, joined the carrier along with the Skuas of 800 Squadron. Although a second squadron of Fulmars was available for embarkation aboard the Ark Royal, Vice-Admiral Somerville maintained his preference for 800 Squadron whose Skuas offered a greater offensive potential.

ACTION IN THE MEDITERRANEAN

HMS Illustrious sailed for her first opera-

tional cruise on 22 August 1940. Aboard were 806 Squadron's Fulmars and Swordfish from 815 and 819 Squadrons. The *Illustrious* entered the Mediterranean on 31 August and rendezvoused with Force H. Fulmars were on alert to intercept any Italian shadower. They also flew training missions and practised dummy interceptions. Such a flight had caused death to four crew members on 24 August. Two Fulmars were playing with a Swordfish when they collided and dived into the sea, killing Sub-Lts A.G. Day and A.L. Ayres, Petty Officer S.H. Gould, and NA1 H. Newton.

The first encounter with the Regia Aeronautica's aircraft happened in September when the carrier, with the battleship Valiant and two cruisers, sailed for the Eastern Mediterranean, in order to reinforce the Mediterranean Fleet and to join HMS Eagle. On 2 September, a formation of Savoia Marchetti SM 79s was detected by RDF operators and the Fulmars were launched to intercept. The section led by Lt W.L.L. Barnes shot down in flames a SM 79 and damaged

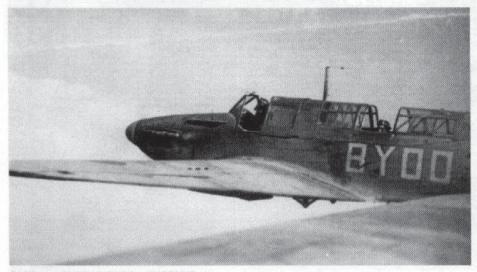
A formation training flight of five Fulmars from RNAS Donibristle that took place on 25 January 1942. The nearest alcraft is coded H in red. Nothing else can be identified from the picture. (IWM)

another machine, which was soon destroyed by AA guns of the Fleet. Two other three-engined torpedo-bombers were claimed by Lt A.J. Sewell and LA D.J. Tribe, whose aircraft was damaged by return fire and had to force-land at Hal Far. A fourth SM 79 was shot down by Sub-Lt G.R. Golden and LA H. Phillips. Two small formations of Italian Junkers Ju 87s also dived on the Fleet but were inaccurate. During the day, 806 Squadron chased shadowing seaplanes. A Cant Z501 flying-boat was successfully engaged by three Fulmars. The victory was shared between Lt Cdr C.L.G. Evans, Lt Cdr R.A. Kilroy and Sub-Lt I.L.F. Lowe.

Two days later, the Italians led another raid on the British Mediterranean Fleet, which was then off Crete in order to strike at night airfields in the Dodecanese islands. 806 Squadron managed to add two torpedobombers to its tally, due to the victories of Lt W.L.L. Barnes, Sub-Lts A.J. Sewell and S.G. Orr. Five more SM 79s were damaged but escaped the Fulmars. HMS Illustrious finally reached Alexandria on 5 September.

The war in the Mediterranean took another form when Italian troops led a large offensive in Egypt on 13 September. The Admiralty was quick to put the *Illustrious* at sea in order to strike the port of Benghazi, where all Italian supplies passed through. Swordfish successfully attacked the harbour on 17 September, sinking a destroyer as well as two merchant ships, damaging other ships and laying mines. Sub-Lt S.G. Orr shot down a Cant Z501 that was watching the Fleet closely.

Another picture of a Fulmar from 790 Squadron based at Charlton Horethorne identified by its unit markings BYOO (White)



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After a ten day rest at Alexandria, the armoured carrier put to sea to provide escort for a convoy supplying Malta. Once again, the Regia Aeronautica intervened with high-altitude bombing by Cant Z1007s, on 29 September. Although the Italians had to record the loss of two Cant bombers due to the actions of Sub-Lts S.G. Orr and G.A. Hogg, an Italian gunner hit the Fulmar of Sub-Lt I.L.F. Lowe and NA R.D. Kensett. The pilot managed to ditch the aircraft and the crew were safely rescued by *HMAS Stuart*. On the way to their Egyptian homeport, Lt Cdr C.L.G. Evans shot down a Cant Z506B, which dived into the sea, on 1 October.

The next spell began on 9 October. HMS Eagle joined the Illustrious to escort a convoy bound for Malta and, before returning home, they attacked Leros Island. The day after the Swordfish had bombed their targets, on 14 October, the British ships were attacked by SM 79s. A section of three Fulmars from 806 Squadron (Lt Cdr Evans, Sub-Lts G.A. Hogg and I.L.F. Lowe) shot down two of them. Another SM 79 was damaged by Lt O.J.R. Nicolls. A shadowing Cant Z501 was also forced to land on the sea by Sub-Lts J.M.L. Roberts and A.J. Sewell. On the way back, another flying-boat, this time a Cant Z506B, was shot down by Sub-Lt Sewell.

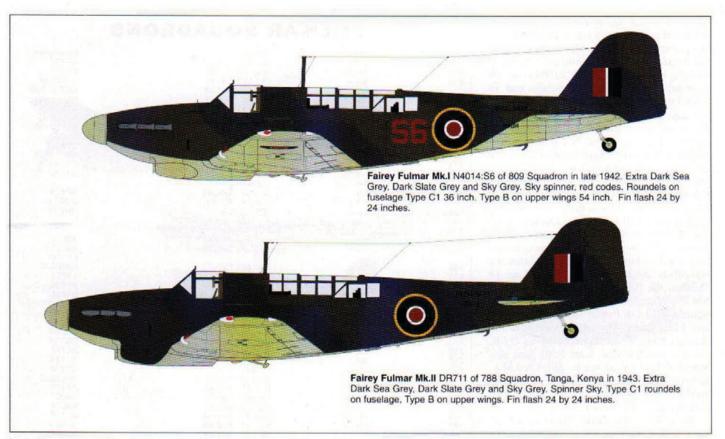
On 6 November, HMS Illustrious set sail for a raid on Taranto, the Italian main naval base. The British Force was detected and attacked by SM 79s on 8 November; two of them being destroyed by three Fulmars. On the next day a shadowing Cant Z506B was shot down by Sub-Lt E. Buttle and NA L.J. Stevens. Only Swordfish took part in the highly successful operation but, again, the Fulmars had to deal with Italian shadowers

From the hangar to the flight deck. This Fulmar belonged to an unknown squadron embarked on HMS Victorious. Aircraft lifts on Fleet carriers were at the mid-deck position and in the stern to allow easy access when aircraft were required for operations. (IWM)

FULMAR SQUADRONS

	LOTIM	AR SWUADR	ONS	
Squadron 273 (RAF) 800 803	Mark Mk.II Mk.I/II Mk.I	Dates Mar 42 - Aug 42 May 41 - Jul 42 Oct 40 - Jun 41		Examples BP777 N4039 N1870:M
	Mk.II	Jun 42 - Aug 43		BP796:7GY
804	Mk.I/II	Mar 41 - Apr 42		N4065
805	Mk.I	Jan 41 - Jul 41		N1950
806	Mk.I	Jun 40 - May 41		N1935:6Z
	Mk.II	Feb 42 - Jan 43		BP782:OR
807	Mk.I/II	Sep 40 - Jun 42		N4007
808	Mk.I/II	Jul 40 - Nov 42		DR676
809	Mk.II	Jan 41 - Mar 43		N4074: 6K
813	Mk.II NF	Mar 44 - Mar 45		DR742
815	Mk.I/II	Sep 42 - Jul 43		N4084
825	-Mk.II NF	Apr 44		
827	Mk.II	Nov 42 - Dec 42		BP824
835	Mk.II NF	Feb 44 - Apr 44		DR673
879	Mk.II	Oct 42 - Mar 43		DR739
881	Mk.II	Mar 42 - Sep 42		
882	Mk.II NF	May 42		
884	Mk.II	Nov 41 - Sep 42		X8692
886	Mk.II	Mar 42 - Mar 43		X8620
889	Mk.II	Mar 42 - Feb 43		BP790 X8566:V
893	Mk.I	Jun 42 - Sep 43		X8713
897	Mk.II	Aug 42 - Sep 42		BP823
700	Mk.I	Sep 41		N1920
726	Mk.II	Aug 43 - Oct 43		DR640
731	Mk.II	Mar 44 - Aug 44		BP789
733	Mk.II	Jan 44 - Feb 44	1	DR710
739	Mk.II	Dec 42 - Aug 43		DR666
746	Mk,II NF	Nov 42 - Apr 44		DR715
748	Mk.I/II	Oct 42 - Apr 43		X8775
756	Mk.II	Oct 43 - Feb 44		BP784
757	Mk.II	Jul 44		BP778
759	Mk.I/II	May 40 - Jul 43		N4040:G
760	Mk,I	Mar 41 - Jun 41		N1925
761	Mk.I/II	Aug 41 - Apr 43		N4097
762	Mk.I/II	Mar 42 - Jun 43		N4064
766	Mk.I/II	Aug 42 - Sep 44		X8777
767	Mk,I/II	Nov 40 - Feb 44		N1980
768	Mk.I/II	Sep 41 - Jan 44		N4007
769	Mk.I/II	Nov 41 - Dec 43		N4127
772	MK.I/II	Jun 42 - Jun 44		N4070:M8H
775	Mk.I/II	Sep 41 - Feb 44		N1860:M
778	Mk.I/II	May 40 - Jun 44		N1862
779	Mk.II	Feb 42 - Jan 43		X8765:Q
780	Mk.I	Jun 43 - Jul 43		N1923
781	Mk.II	Oct 43		X8746
782	Mk.II	Feb 41 - Mar 41		N4077
784	Mk.I/II NF	Jun 42 - Nov 44		DR726:B0X
787	Mk.I/II	Mar 41 - Apr 44		DR714
788	Mk.II	May 42 - Jul 43		DR700:F
789	Mk.II	May 43 - Jul 43		DR700:F
790	Mk.I/II	Jul 42 - Feb 44		X8697
793	Mk.II	Sep 43 - May 45		X8778
794	Mk.II	Sep 43 - Jun 44		X8756
795	Mk.II	Jun 42 - Jun 43		DR643:A
798	Mk.II	Apr 44 - Apr 45		X8653





while the ships were on their way back. 806 Squadron added to its tally two Cant Z501s on 12 November and a Z506B on the following day.

After a seven-day rest, the *Illustrious* returned off Leros Island. The Fulmars had the opportunity to take on Fiat CR 42s. Sub-Lt W.H. Clisby damaged one on 26 November, but his aircraft was then hit and his Observer, LA H. Phillips, was injured. Another Fulmar crashed while approaching the carrier for deck-landing, Lt J.P. Coates was killed in this accident. Two days later, off Malta, Sub-Lt S.G. Orr and Lt R.A. Brabner each shot down one CR 42. Two more biplane fighters were awarded to Lt Brabner as probables. The last operation of the year consisted

in attacks on Rhodes and Stampalia in mid-December, followed by a strike on Tripoli harbour.

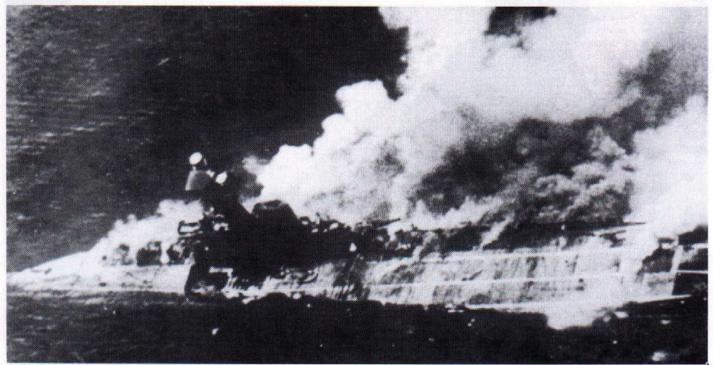
FULMARS FOR FORCE H

After an operation off Dakar, HMS Ark Royal had returned to the UK in October 1940 for a refit. She embarked 808 Squadron, alongside the Skuas of 800 Squadron, on 31 October and sailed for Gibraltar, where she joined Force H on 6 November 1940. Their first operation was a raid against Sardinia on 9 November. The day before the attack, Lt Cdr R.C. Tillard - the CO of 808 Squadron - succeeded in shooting down a shadowing Cant Z506B. He also destroyed a three-engined

Savoia on 9 November.

At the end of November, Force H provided escort for three large transports en route to Malta and Alexandria. On 27 November, a Fulmar located several Italian warships south of Sardinia. British cruisers engaged the enemy ships, which evaded action and retreated. Later, the *Ark Royal* attempted to stop them and launched 11 Swordfish armed with torpedoes and then seven Skuas for a dive-bombing attack, but only near misses were reported. Fiat CR 42s successfully intercepted an escorting Fulmar. Both crew mem-

The end of *HMS Hermes*. Blazing from stem to stern and with a heavy list to port the ship sank off Ceylon after a devastating attack by Japanese aircraft on 9 April 1942. (Author's collection)



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Engines had to be constantly warmed up whilst aircraft were at readiness. This picture of a Fulmar Mk.I N4074:6K of 809 Squadron was taken at Hvalfjord, Iceland when the aircraft were shore-based from HMS Victorious for a short period. (IWM)

bers, Sub-Lt R.M.S. Martin and LA A.L.M. Noble, were killed. Force H had then to sail away from Italian-held territories and return to their escort duties. Fortunately, Regia Aeronautica's intervention was limited to the usual shadowers and high-level bombers. A Cant Z506B was shot down by a section of Fulmars from 808 Squadron. Mediterranean Fleet had left Alexandria to meet the convoy and then took over the escort for the second part of the journey, which was uneventful, while Force H sailed westwards.

Passage of further convoys seemed to become high-risk operations following the Mediterranean deployment of the Lutwaffe's X Fliegerkorps - with their fighters and divebomber crews boosted by their experience in Norway - to assist Regia Aeronautica and with the aim of sinking HMS Illustrious and cutting the British shipping lanes. When a convoy of five cargo ships, escorted by Force H, passed through the Sicily narrows to rejoin Alexandria on 9 January 1941, the Axis Forces offered strong opposition. A formation of SM 79s made an inefficient high-level bombing run in the afternoon. Fulmars of 808 Squadron had the time to climb and engaged several. Two Savoias were shot down by Lt Cdr R.C. Tillard and Lt M.F. Somerville. Italian Ju 87s tried to get hits by dive bombing the carrier but recorded the same results as the Savoias.

During the night, HMS Ark Royal and Force H turned back to Gibraltar while the convoy went on eastwards to meet the Mediterranean Fleet west of Malta. First to come on the morning of 10 January were Italian Savoias for low-level torpedo attacks. 806 Squadron's Fulmars were scrambled from HMS Illustrious and chased them. If the torpedobombers were inefficient, they succeeded in



FAIREY FULMAR WARPAINT

Fairey Fulmar production list Mark Serials Constructor's numbers K5099 and K7555 P.4/34 2231 and 2266 3707 - 3746 Mk.I N1854 - N1893 40 752200/38 Mk.I N1910 - N1959 3747 - 3796 50 752200/38 Mk.I N1980 - N2016 3797 - 3833 37 752200/38 Mk.I N3994 - N4016 23 27 3834 - 3856 752200/38 Mk.II N4017 - N4043 3857 - 3883 752200/38 MK.II N4060 - N4100 3884 - 3924 41 752200/38 Mk.II N4116 - N4147 3925 - 3956 32 752200/38 Mk.II X8525 - X8574 5020 - 5069 50 B101971/40 X8611 - X8655 Mk.II 5070 - 5114 45 B101971/40 Mk.II X8680 - X8714 5115 - 5149 35 B101971/40 Mk.II X8729 - X8778 5150 - 5199 50 B101971/40 Mk.II X8798 - X8817 5200 - 5219 B101971/40 Mk.II BP775 - BP796 5820 - 5841 22 B101971/40 Mk.II BP812 - BP839 5842 - 5869 28 R101971/40 Mk.II DR633 - DR682 5870 - 5919 50 B101971/40 Mk.II DR700 - DR749 5920 - 5969 B101971/40 Production total: Two P.4/34s and 600 Fulmars

diverting several fighters. Everyone moved on to more serious matters when a formation of 43 Junkers Ju 87s of I/StG 1 and II/StG 2 appeared a few minutes later. The divebombers made for the British carrier. With their usual precision, the German Stukas managed to achieve damage to the Illustrious, which was directly hit by six 1,000 kg bombs. The handful of Fulmars gallantry fought but they were overwhelmed. Lt W.L.L. Barnes and Sub-Lts S.G. Orr, J.M.L. Roberts and A.J. Sewell wiped out of the sky four Ju 87s (the Lutwaffe recorded only three Ju 87s lost on this day). The rear gunner of a Stuka hit the radiator of the Fulmar flown by Sub-Lt I.L.F. Lowe, who was forced to ditch after the engine had seized. The pilot was rescued by the destroyer Jaguar but the TAG, NA1 R.D. Kensett, lost his life. Messerschmitt Bf 110s of III/ZG 26 reported victories over two Fulmars, but actually only one aircraft was lost by 806 Squadron although several were damaged. This Fulmar had engine problems and was unable to take-off. It was destroyed on the deck by a bomb, killing Sub-Lt J.

Marshall and Pty Off N.E. Tallack. The surviving Fulmars flew to Malta while the crippled *Illustrious* also attempted - and managed to get to Grand Harbour by the evening - where it was to receive temporary repairs.

Italian SM 79s then made a bombing attack from high altitude with no results. Lt M.W. Henley, Sub-Lts A.S. Griffith and J. Marshall destroyed one of these aircraft. Another SM 79 was forced to land and was ground-strafed by Sub-Lts G. Orr and A.J. Sewell. Two hours later, two more waves of Stukas again attacked the wounded carrier. Fortunately, they were less accurate and only one bomb hit the ship. Fulmars had taken off from Malta in order to protect their carrier. Lt. W.L.L. Barnes and Sub-Lt S.G. Orr each damaged a Ju 87.

The *Illustrious* was out of action for six months and left the elderly *Eagle* as the sole carrier available in the eastern Mediterranean, until the arrival in March of the recently-commissioned *Formidable*. The RN had to be careful and kept its carriers out of range of the Stukas.



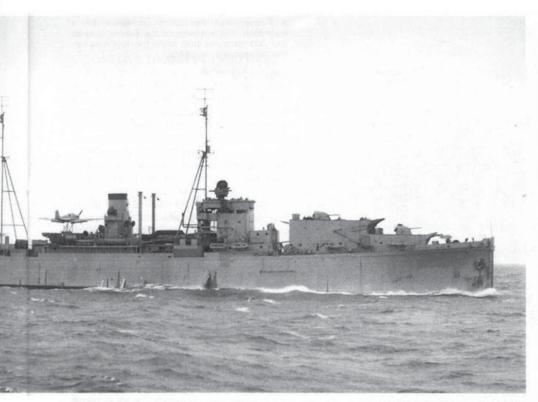
OPERATIONS IN CRETE

The surviving Fulmars of 806 Squadron, which had flown to Malta after the Stukas' attack on *HMS Illustrious*, formed a naval fighter section ashore and assisted RAF Hurricanes in the defence of Malta. They operated as single-seat fighters and mirrors were fitted to improve their rear-view. Despite the Fulmars having no speed advantage on the Junkers Ju 88, they managed to

A nasty mishap at night on board *HMS Ravager* on 23 February 1944 when Fulmar Mk.II NF726 of 784 Squadron broke off the undercarriage whilst landing. (via Ray Strutivant)



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engage some over Malta. On 16 January 1941, 806 Squadron added two Ju 88s to its tally, thanks to the skill of Lt W.L.L. Barnes, Sub-Lt S.G. Orr and NA J.T. Beach.

Two days later, the Fulmars were not in an easy situation and two of them were shot down by Lutwaffe aircraft during a large raid by Ju 87s on the airfields at Hal Far and Luqa. All aircrews were safely picked up, except Sub-Lt A.S. Griffith who was dead. Next day, German bombers and dive-bombers again raided the harbour and tried to give the final blow to the Illustrious. Lt R.S. Henley succeeded in shooting down a Stuka, badly damaging a Ju 88 and inflicting damage to another twin-engined bomber when his own aircraft was badly hit. Both members were picked up. Lt W.L.L. Barnes, Lt D. Vincent-Jones and Sub-Lt S.G. Orr destroyed a last Ju 88 on 5 February.

On 15 February, 806 Squadron was sent to Maleme, in Crete, to provide fighter cover for the Swordfish operating from this base. As activity in the area was growing steadily, it was necessary to also send 805 Squadron to Crete; Fulmars and some RAF Brewster Buffalos arriving at Maleme on 6 March. A Fulmar was lost on 10 March when Lt R.A. Brabner force-landed in Suda Bay due to lack of fuel. Both crew members were rescued by HMS Hotspur.

Despite numerous Italian raids over Crete and the Dodecanese islands and the visits of Ju 88s, the Fulmars did not record many kills. The Fairey fighter's armament of 0.303in guns was not lethal enough and the FAA pilots often saw their prey fly away with only superficial damage. During an attack by SM 79s accompanied by CR 42s on 19 March, a flight from 805 Squadron intercepted them. Sub-Lt R.C. Kay shot down a three-engined bomber but then collided with another. The Fulmar crashed into the sea and both the pilot and the air gunner, LA D.R. Stockman, were killed.

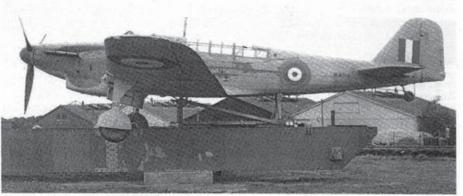
At last, in March 1941, HMS Formidable had been made available to reinforce the

Mediterranean Fleet. On 27 November 1940, the new carrier had taken on board the Fulmars of 803 Squadron. At the end of December, the *Formidable* escorted a convoy to Sierra Leone. During passage off the Vichy French territories of West Africa, the Fulmar of Sub-Lt I. Easton and NA1 J.A. Burkey had force-landed near Dakar, on 4 January 1941, and both crew members became prisoners of war (PoW). *HMS Formidable* then rounded

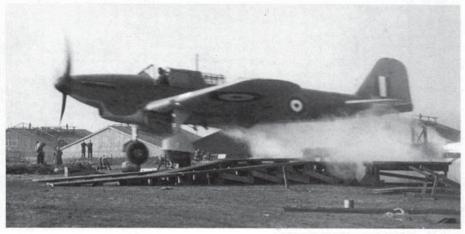
Left: The armed merchant cruiser HMS Sprinkbank was one of those equipped with a catapult and in this case mounted a Fulmar of 804 Squadron for convoy protection duties. (IWM)

the African continent, taking the opportunity to attack Italian held territories in February, and set course for Alexandria, her new homeport. She arrived on 10 March, having been delayed for passage of the Suez Canal due to the presence of mines - laid by He 111s of KG 4 on 18 February. The fighter strength of the Formidable was reinforced when 806 Squadron left Maleme to embark on 20 March.

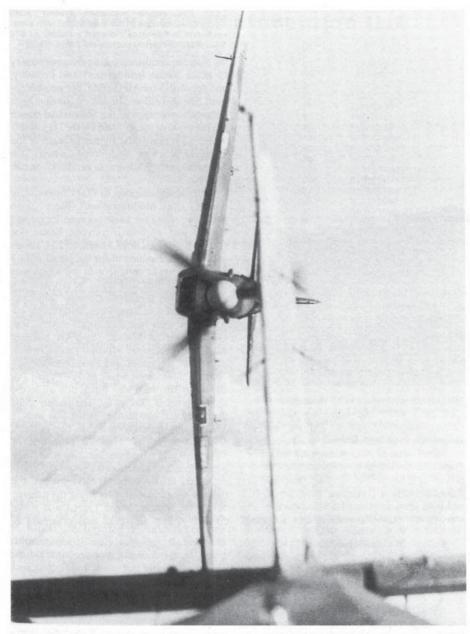
The tasks assigned to HMS Formidable within the Mediterranean Fleet were patrolling along the lanes between Egypt and Greece and escorting convoys bound for Greece or Malta. On 21 March, Lt J.M. Bruen (with Lt D.J. Godden in the backseat) of 803 Squadron caught up with a Ju 88, which was crippled and then shot down by AA fire. Six days later, the presence of enemy ships was reported and a striking force, comprising six Albacores with two escorting Fulmars, was launched on 28 March. The FAA biplanes aimed at the cruiser Vittorio Veneto, which avoided all torpedoes. The two accompanying Fulmars intercepted a pair of Ju 88s and Pty Off A.W. Theobald shot down one while the second bomber fled away. The Italian ships then retreated but another strike was sent in order to slow them down. Again, two Fulmars provided cover for a mixed formation of Swordfish and Albacores but, this time, they were successful and scored a hit on the cruiser, which finally stopped. Nevertheless, the Italians were capable of repairing the damage before the Mediterranean Fleet could make contact. A last air strike was organised at



Above and below: Many experimental catapult launches were conducted with Fulmar Mk.ls at the Royal Aircraft Establishment, Farnborough. These two pictures show N4016 on the catapult in 1943 and the subsequent launch. A quick circuit and the aircraft landed ready for another launch. (RAE)



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her fighter strength. In the afternoon, two SM 79s flew over the ships. A flight from 803 Squadron tried to intercept them. The Savoias

dusk, with a force of four Swordfish and six Albacores. One torpedo hit the cruiser *Pola*, which was left behind with an escort of two cruisers and five destroyers. They were later caught by the *Valiant* and the *Warspite* and only three of them survived the guns of the RN warships. The British then retreated and were attacked next day by a formation of Ju 88s. Two of the three Fulmars launched, piloted by Lt C.W.R. Peever and Sub-Lt A.C. Wallace, shot down a Ju 88 that crashed into the sea.

The situation in the Balkans war was significantly changed when the Wehrmacht invaded Yugoslavia and Greece on 6 April 1941. In a few days, the Yugoslavian and Greek armies collapsed while British and ANZAC troops had to withdraw to Crete; evacuation being completed by 30 April at the cost of several ships and a large amount of equipment.

On 18 April, HMS Formidable sailed in order to escort a convoy to Crete. Four of the Cretian-based Fulmars of 805 Squadron joined the carrier, reinforcing momentarily

The light Fleet carrier *HMS Biter* was engaged in Atlantic convoy protection. On board were both Swordfish and Fulmar aircraft seen here ranged on the flight deck. (FAA Museum)

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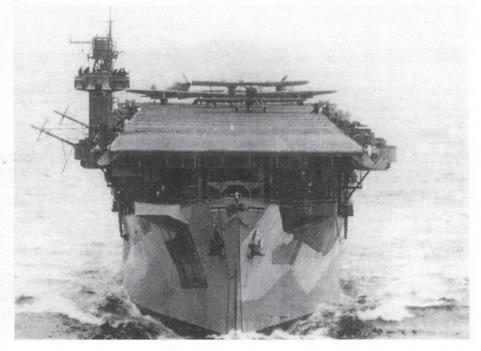
A Fulmar Mk.I simulating an attack on a Swordfish. The left wing of the Fulmar mounts four .303 machines guns whilst the right wing has two .50 calibre guns (MAE)

escaped but an air gunner was successful in hitting the Fulmar of Lt D.C.E.F. Gibson and Sub-Lt P.C.B. Ashbrooke. With a dead engine, the pilot attempted to land on the Formidable but crashed on deck and the observer did not survived.

Before returning to Alexandria, HMS Formidable sailed for a raid on Tripoli harbour. On their way south, on 20 April, they met a Cant Z1007bis that Lt Cdr C.L.G. Evans and Sub-Lt A.J. Sewell shot down. Five Junkers Ju 52/3ms had the misfortune to come within detection range of the carrier and were easily intercepted by four Fulmars. Only one transport aircraft escaped but the Fulmar of Lt J.H. Shears and Sub-Lt E.J.H. Dixon was hit by return fire and spun into the sea, killing both occupants. On the next morning, the British ships bombarded Tripoli harbour and soon retreated to Alexandria. Later in the day, Sub-Lt S.G. Orr forced a Dornier Do 24 to land on the sea with serious damage. A large scale raid by Ju 88s took place next day. Lt Cdr Evans led a section and shared with Sub-Lts A.J. Sewell and S.G. Orr a probable kill. Another flight from 806 Squadron caught a second Ju 88 and Sub-Lt P.D.J. Sparke shot it down in to the sea. Other Junkers evaded the pursuit of the slow Fulmars.

After the evacuation to Crete, the Formidable was mainly involved in protection operations for convoys supplying the troops in the island. Crete was subjected to continuous air attacks. 805 Squadron had a big job with less and less aircraft serviceable as they were repeatedly bombed and strafed on the ground.

On 3 May, Lt A.H.M. Ash and TAG T.A. Baker inflicted serious damage on an attacking Ju 88, which was credited as probable. The following day saw Lt R.A. Brabner, with again Baker in the backseat, shooting down a Ju 88 over Suda Bay. Nevertheless, 805 Squadron then progressively withdrew to Egypt and, by 10 May, only two Fulmars were left at Maleme, along with four Sea Gladiators. In the ensuing week, both



Fulmars were hit during strafing runs, putting an end to 805 Squadron operations in Crete.

CONVOYS TO MALTA AND EGYPT

In the Western Mediterranean, Force H had gone on to the offensive in the Mediterranean and the *Ark Royal* had launched her Swordfish against Italian targets. They attempted to breach a dam in Sardinia with torpedoes, on 2 February, and attacked an oil refinery at Leghorn, on the Italian mainland, seven days later. Lt. E.W.T. Taylour destroyed a shadowing Cant Z1007bis on 9 February.

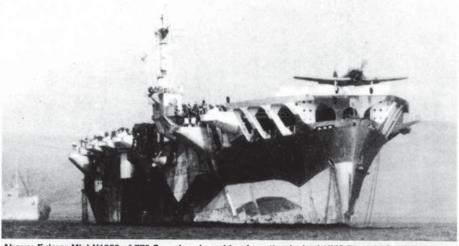
The German Afrika Korps began to deploy in North Africa during February while, the following month, British troops were sent to Greece. All these activities compelled the Admiralty to suspend Malta convoys until late in March.

In the meantime, 807 Squadron had embarked aboard HMS Furious on 5 March 1941. Their first mission was a convoy escort to West Africa, during which the Fulmar of Lt O.F. Wheatley and Sub-Lt R.B. Hodgetts was lost and crash-landed in Vichy-held Dakar. On her way north, the Furious stopped at Gibraltar and, on 4 April, 807 Squadron received 12 Fulmar Mk.IIs and was transferred to the Ark Royal in replacement of 800 Squadron. With 807 and 808 Squadrons onboard, HMS Ark Royal had now a force of 24 fighters to face the X Fliegerkorps, but lost the dive-bombing capacity of the Skuas, 800 Squadron joined the Furious, which returned home, and prepared to re-equip with Fulmars.

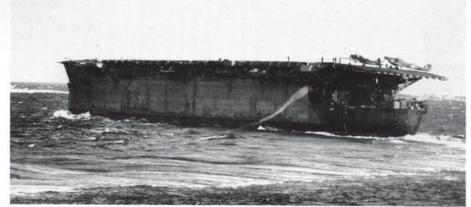
During the first week of April, Ark Royal was tasked with the delivery of 12 Hurricanes to Malta. The operation was uneventful despite the convoy being shadowed by several Italian aircraft. Three of them, all Cant Z506Bs, went down into the sea due to the skill of Lt Cdr R.C. Tillard, Lt R.C. Hay and Pty Off D.E. Taylor.

Early in May, Force H escorted five merchant ships bound to Egypt, alongside the bat-

Fulmars of 809 Squadron and Sea Hurricanes aboard *HMS Victorious* in 1942. *HMS Argus* is in the background. (J.W.Herbert)



Above: Fulmar Mk.I N1952 of 778 Squadron launching from the deck of *HMS Pretoria Castle* at anchor in May 1944 during the period in which the ship was engaged in trials of experimental radio and radar equipment. (IWM) Below: After the sinking of *HMS Ark Royal* 807 Squdron was shore-based at North Front, Gibraltar but occasionally embarked on a carrier such as *HMS Argus* seen here turning into wind for a launch of Fulmars on the rear of the flight deck (IWM)

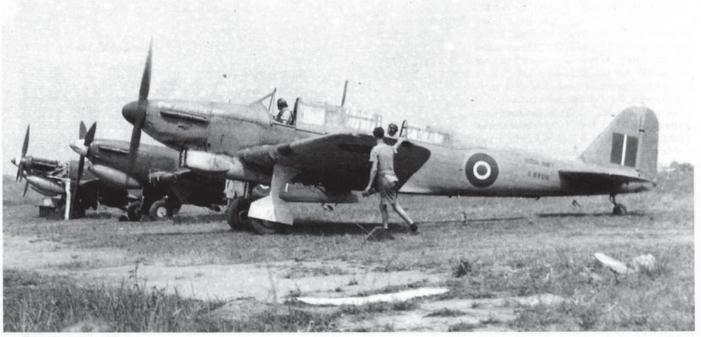


tleship *Queen Elizabeth* and two cruisers that sailed for Alexandria as reinforcements for the Mediterranean Fleet. On 8 May, the Regia Aeronautica began to attack the convoy with formations of SM 79s escorted by Fiat CR 42s. Fulmars from both 807 and 808 Squadrons were launched to intercept. Three Savoias were shot down but several Fulmars were hit by fire from Italian biplanes of 3°

Stormo. 808 Squadron lost its CO in a combat with these CR 42s. Lt Cdr R.C. Tillard and his observer, Lt M.F. Somerville, were killed. Only Lt E.W.T. Taylour reported a victory on one of these Fiat fighters, but his observer was wounded. The Fulmar of Sub-Lt R.F. Walker and LA H. McLeod was also badly hit and had to ditch but this crew were fortunately picked up. The same fate happened to



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Probably on communications duties this Fulmar Mk.I N4015 preparing to taxi. The picture was fairly obviously taken in the Midle East judging by the ground crew uniforms. The other two aircraft look like target towing Defiants. (via A.W.Hall)

another aircraft from 807 Squadron and both Lt N.G. Hallett and Lt V.A. Smith were also safely recovered. Later in the day, German aircraft approached and again Fulmars were launched. Despite the presence of Bf 110s, Lt R.E. Gardner succeeded in shooting down two Stukas while Lt E.W.T. Taylour destroyed a third and damaged a fourth Ju 87. After the Tiger convoy, the *Ark Royal* made contact with the *Furious* and both carriers flew off two squadrons of Hurricanes to Malta on 21 May.

Meanwhile, two other convoys had left Egypt and sailed westwards. HMS Formidable had sailed on 6 May to provide cover for these transports and later made contact with the Tiger convoy to escort them to Alexandria. On 8 May, 803 Squadron lost two aircraft and their crews. Lt C.W.R. Peever and Pty Off F. Coston were killed during an attack on two Cant Z1007s. Both Italian bombers were nevertheless shot down by the combined actions of Lt Peever and Sub-Lt Wallace. The second Fulmar lost was crewed by Sub-Lt G.B. Davie and Pty Off W.T. Chatfield.

That same day, He 111s were engaged by Fulmars from 803 and 806 Squadrons. Lt J.M. Bruen shot down a He 111. Lts R. MacDonald-Hall and P.S. Touchbourne destroyed two more Heinkels but MacDonald-Hall was hit by return fire and crashed on the deck of the *Formidable*. Another section of 806 Squadron intercepted a He 111, which went down, but the aircraft of Lt G.B. Davie and Pty Off W.T. Chatfield then fell into the sea. A fast Ju 88 was also

This Fulmar Mk.I N4006 was appropriated by the Vichy French and was formerly part of 807 Squadron on HMS Furious. Lt O.F.Wheatley and Sub Lt R.B.Hodgetts were on a reconnaissance mission over Vichy-held territory when they ran out of fuel and were forced to land at Dakar on 27 March 1941. French Air Force GC1/4 flying Curtiss H.75s took over the Fulmar. (Musee de I'Air)

shot down, by Sub-Lt P.D.J. Sparke. This pilot, in company with Lt R.S. Henley, again attacked a Ju 88 on the following day and badly damaged it. His luck turned on 11 May when he collided with a Ju 88 from LG 1. The Fulmar crashed into the sea, killing him and LA A.S. Rush. On 12 May, the Tiger convoy entered Alexandria.

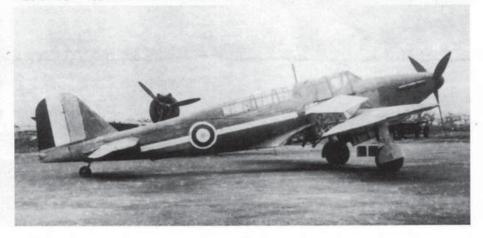
Operation 'Merkur' was launched on 20 May when German parachute and glider-borne troops invaded Crete. Five days later, *HMS Formidable* was sent to reinforce the aerial support to the British and ANZAC troops, which were on the retreat after having inflicted severe casualties to the German airborne troops.

On 26 May, two strikes were carried out by Albacores while four Fulmars of 803 Squadron ground-strafed the airfield on Scarpanto island (only 50 miles from Crete), reporting some hits on CR 42s and Ju 87s. That same day, two pilots of 806 Squadron, Lt R. MacDonald-Hall and Sub-Lt J.A. Hogg, caught up with a Ju 88 and shot it down. The rear gunner of another Ju 88 hit the aircraft of Sub-Lt D.H. Richards and LA T.S. Melling, which crashed on the deck.

In the afternoon, a formation of Stukas from II/StG 2 - which came from a North African base and were actually searching for supply ships - appeared over the fleet. They rapidly saw the value of these targets and attacked with the aim of inflicting the same fate to the *Formidable* as they did to the *Illustrious*. The Ju 87s made another precision dive-bombing attack, scoring two direct hits on the flight deck. The four Fulmars available were scrambled too late to confuse the Stukas and were completely outnumbered. Lt Passy and Sub-Lt K.L. Wood only managed to engage a Ju 87 after the attack and shot it down.

Once again, the Stukas managed to put out of action the most armoured carrier in the world for several months. Malta convoys were again suspended. While *HMS Formidable* set course for the USA, where she would be repaired, 806 and 803 Squadrons went ashore at Dekheila. The two squadrons later formed the RN Fighter Squadron in the Western Desert and flew Hurricanes.

The next Malta convoy included six merchant ships. They left Gibraltar on 21 July, accompanied by Force H. After two days, they underwent heavy air attacks. Despite the presence of an escort of 20 Fiat G.50 monoplanes, the few Fulmars of 807 and 808 Squadrons managed to hit several SM 79s. No less than five Savoias were shot down while many others fled away damaged. Three Fulmars were nevertheless hit by return fire



and ditched; all crews being rescued by ships. The Italian torpedo-bombers hit a cruiser and sent to the bottom a destroyer but the transports passed through.

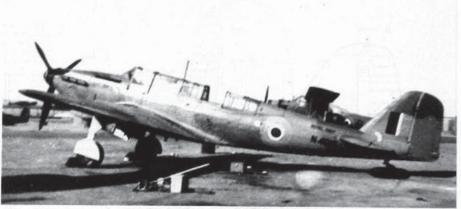
On the way back to Gibraltar, HMS Ark Royal was again attacked by Italian aircraft. Lts R.C. Cockburn and A.T.J. Kindersley shot down two SM 79s and damaged other attacking aircraft but both Fulmars were hit. Lt Kindersley and his TAG, Pty Off F.A. Barnes, were killed while the second aircraft managed to ditch, allowing the rescue of Lt Cockburn and Pty Off W.E. Curtiss. During the day, three Cant Z506Bs, which kept watch on the ships, were shot down due to the combined efforts of Lt N.G. Hallett, Sub-Lt K.G. Grant and Sub-Lt G.C.M. Guthrie. A gunner from a floatplane succeeded in hitting the Fulmar of Sub-Lt Grant and LA H. McLeod, which crashed killing both occupants. Another Cant Z506B was destroyed by Lt E.D.G. Lewin before the ships were back at Gibraltar on 27 July.

At the end of the month, the Ark Royal launched a strike on the Sardinian airfield of Alghero. On 24 August, another raid was carried out by Swordfish of the Ark Royal, aiming at Tempio. During August, only one Malta convoy was carried out but no carrier took part in the operation.

X, Y AND Z FLIGHT

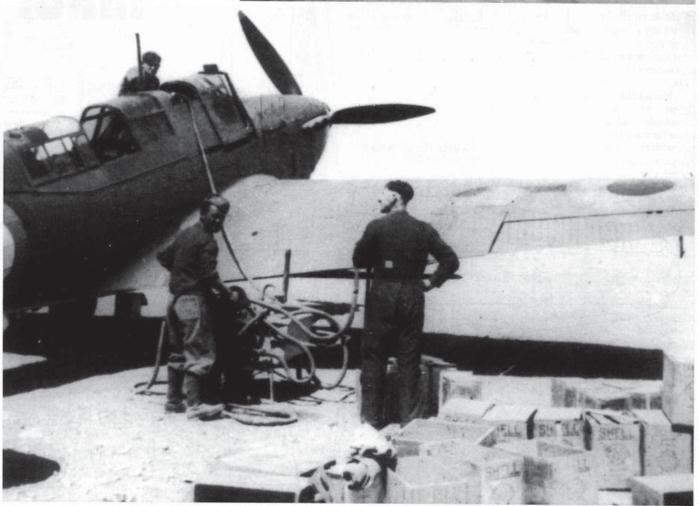
At last, it had been 800 Squadron's turn to relinquish its Skuas and re-equip with Italian prisoners of war helping to refuel a Fulmar Mk.I flown by Sub Lt Orr at El Adem in the Western Desert when it was part of 806 Squadron

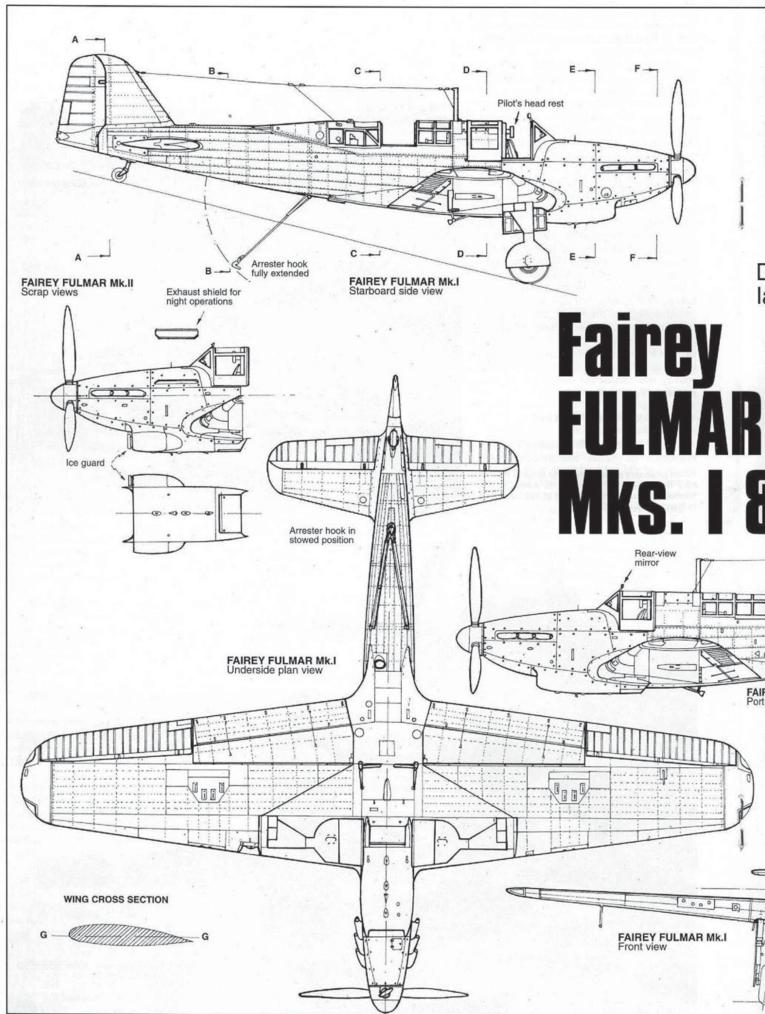
in March 1941. (S.G.Orr)

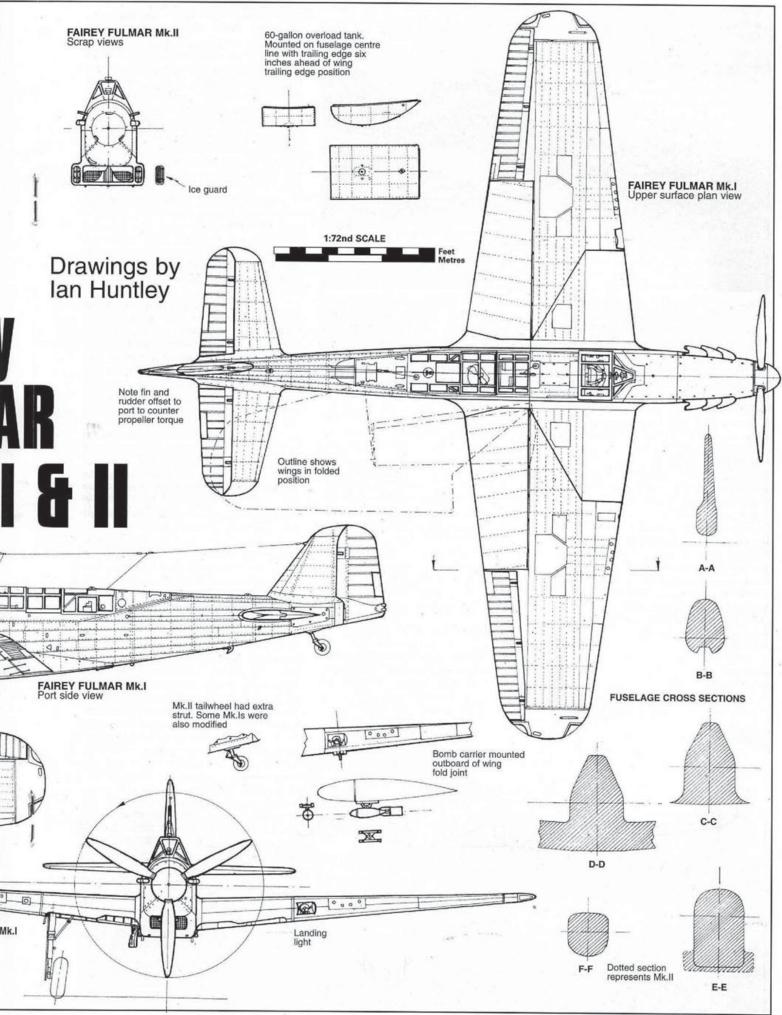


Above: Shore-based Fulmar Mk.I N4015 in the Western Desert in 1941. (via A.W.Hall) Below: This Fulmar Mk.I N1944 was normally part of 805 Squadron on board *HMS Ark Royal* but shown here in front of hangars at an unidentified shore station, probably Dekheila, in the Canal Zone. (RAFM)











Fulmars in May 1941. The first fighter squadron of the FAA was divided into three flights, each dedicated to a particular ferrying carrier. The role of these flights was to provide escort and navigational assistance to RAF Hurricanes that were flown to Malta from carriers in the Western Mediterranean. 800X Flight were to operate from HMS Furious with nine Fulmars. The three Fulmars of 800Y were associated with the old Argus while HMS Victorious embarked the six Fulmars of 800Z Flight.

800X Flight joined the Furious on 10 May 1941. Aboard were also 40 Hurricanes. They made a stopover at Gibraltar where HMS Ark Royal was waiting. Twenty Hurricanes were transferred aboard the fleet carrier, as well as the Fulmar Mk.IIs of 800X Flight who took over the old Mk.I models from the Ark Royal. Then they set course for Malta and both carriers launched their aircraft on 21 May. Seven Fulmars flew alongside the 48 RAF fighters and all aircraft but two landed at Hal Far and became part of the Maltese defence forces. The Fulmars should have continued on their way to Crete but the German invasion put an end to this plan.

800X Flight operated on night intruder operations over Sicily until its disbandment, on 13 November, due to lack of serviceable aircraft. The first loss occurred on the night of 11 to 12 June when the engine of the Fulmar

flown by Lt J.S. Manning and Pty Off A.W. Sabey caught fire, causing them to ditch. They were fortunate to be rescued at dawn. A second aircraft was written off on the following day. During a day patrol, ammunition caught fire probably due to high temperatures. Sub-Lt R.G. Drake was able to reach Malta to land in emergency.

The first success happened on 6 July. Lts J.S. Manning and A.M. Tritton managed to shoot down a Fiat BR.20 off Catania. Ten days later, Sub-Lt F.C. Furlong and Pty Off A.W. Sabey were approaching Gerbini airfield for a sweep when they received a green flare for landing. They seized this opportunity to make an easy bomb run and release their 20lb bombs on an aircraft, which began to burst into flames. On 2 September, Lt J.S. Manning and Pty Off A.W. Sabey added another BR.20 to the tally of 800X Flight. During a night sweep over Gerbini, on 8 October, the Fulmar of Lt J.S. Manning and Pty Off J.A. Jopling was hit by AA fire and, after force-landing, both occupants became

HMS Argus only embarked her 800Y Flight for a lone operation during the last two weeks of May 1941. On 31 May, the Fulmars were disembarked at North Front, Gibraltar, and finally returned home aboard the Ark Royal, settling down at Lee-on-Solent on 14 June without seeing any combat.



PAGE 22 FAIREY FULMAR WARPAINT

Three Fulmar Mk.Is of 806 Squadron embarked on HMS Illustrious in 1940 keep a close look at their old rivals. That's HMS Eagle down below. (S.G.Orr)

800Z Flight embarked with five Fulmars aboard the Victorious on 6 May 1941. For her first operational spell, the new carrier was tasked with delivering 48 Hurricanes for Malta. Before the Victorious sailed for the Mediterranean, the Bismarck and the Prinz Eugen weighed anchor on 18 May and attempted a foray into the Atlantic Ocean. The Home Fleet was immediately set off in pursuit of the German battleships and HMS Victorious joined in the chase on 22 May, after having unloaded the Hurricanes still in crates. Two days later, an encounter led to the total loss of the Hood while the Prince of Wales escaped damaged. Only superficial damage was inflicted to the Bismarck and it was decided to launch an attack with the Swordfish of 825 Squadron which were aboard the Victorious.

The Fulmars played a vital role as they had to locate and shadow the German battleships, in particularly bad weather with rain squalls and snow storms. Each flight was relieved after two hours and contact was maintained for a long period. In addition, two fighter crews were constantly at instant readiness for the protection of the Fleet. During the night of 24 May, two shadowing aircraft were unable to return to the carrier, which had altered course in the meantime and whose homing beacon was unserviceable. After a square search, both Fulmars had to ditch in the icy waters. Lt F.C. Furlong and Sub-Lt J.E.M. Hoare had the luck to be rescued by the freighter Beaverhill on 26 May. Unfortunately, no traces of Lt B.D. Campbell and Sub-Lt M.G. Goodger were found.

The Swordfish's attack was not a success, even though a shadowing Fulmar reported seeing one torpedo hit. The Victorious was unable to launch another strike as the German ships evaded watch, taking advantage of the extremely bad weather during the night. A RAF Catalina again located the Kriegsmarine ships on the morning of 26 May. The Victorious was now too far away and took no further part in the ensuing action, contrary to HMS Ark Royal. After having delivered Hurricanes to Malta, she entered the Atlantic and was then further south, in a position to cut the Bismarck's escape. The Swordfish of 810, 818 and 820 Squadrons managed two hits on the the Bismarck, whose rudders and steering-gear became unserviceable, and which brought her to a standstill. The Rodney and King George V arrived and destroyed her, before the Dorsetshire sank the pride of the Kriegsmarine with torpedoes.

HMS Victorious returned to re-load the Hurricanes and could at last set sail for the Mediterranean. She met the Ark Royal and stopped briefly at Gibraltar, where 24 Hurricanes were transferred to the Ark Royal. Both carriers left the Rock and entered the Mediterranean on 13 June. When they reached a position south of the Balearic Islands, the Hurricanes took off and, in company with four Hudsons coming from Gibraltar managed to aid navigation for the

With the flaps set at one third and both canopies open to allow a quick exit in case of ditching, this 808 Squadron Fulmar Mk.II, coded 7F, gets airborne with just enough room to spare from HMS Ark Royal's deck (FAA Museum)

fighters and then went on to land at either Malta or Egypt.

SHORE-BASED FULMARS

Lebanon and Syria, under French protectorate, offered assistance for Iraqis rebels and let the Luftwaffe's and Regia Aeronautica's aircraft to use their landing grounds. This situation compelled the British government to intervene in this strategic region because of essential oil supplies from the region. Raids were launched on the air bases used by Axis aircraft from May 1941 and the British forces (including Australians and Free French) entered Vichy-held territories on 8 June.

As the RAF could not spare many aircraft to support this operation, both 803 and 806 Squadrons - which had been ashore since the Stukas attack on HMS Formidable - were sent to Palestine. Only 803 Squadron was still flying Fulmars and arrived with eight aircraft. Their main task was to provide air cover for the ships that bombarded French positions along the coast.

On the first day, a section of 803 Squadron was patrolling over warships off Saïda when they were bounced by two Dewoitine D.520s from GC III/6. Before the French fighters could score hits, one of them was shot down by AA fire and the other broke off. Later in the day, six Fulmars were attacked by six

In October 1942 HMS Victorious was in the vicinity of Scapa Flow from where flying operations were conducted. The Fulmar Mk.I belonged to 809 Squadron. On closer examination the dark spot in the picture, top right, is a barrage balloon presumably part of the naval base's defences against air attack. (Ray Sturtivant)

D.520s. In the ensuing dogfight, two RN fighters were shot down but the Dewoitines had to fly away due to the intense fire from the ships'AA guns. Both crew members of the Fulmars (Lt J.M. Christian, Sub-Lt N. Cullen, Pty Off J.A. Gardner and LA H. Pickering) perished. This action also cost 803 Squadron another Fulmar whose crew were rescued, as well as severe damage to two further aircraft. From this time, 803 Squadron was not able to maintain air cover over the Fleet. RAAF and RAF fighters took over the protection. With the remaining serviceable Fulmars, 803 Squadron resumed patrols over the ships on 10 June to face interference from French Glenn Martin bombers. The poor performance of the Fairey fighter compared with the Dewoitines forced the Air Command to allocate Hurricanes and Tomahawks to the air cover of the ships. Although 803 Squadron moved to the airfield at Ramat David on 22 June and combats continued until 10 July, the Fulmars saw no more action in this area and were sent back to Egypt.

At the end of 1940, 12 Fulmar Mk.Is had been delivered to Egypt, travelling by sea aboard a merchant ship to Takoradi and then crossing Africa on an eastward route by air. All aircraft were gathered at Dekheila and, on 1 January 1941, became the nucleus of the reformed 805 Squadron. Some Brewster Buffalos were added, and the complement grew again in the following months with the arrival of Sea Gladiators and RAF Hurricanes. In July, all the surviving Fulmars were relegated to second line duties and Grumman Martlets took their place. At this time, 805 Squadron joined up with 803 and

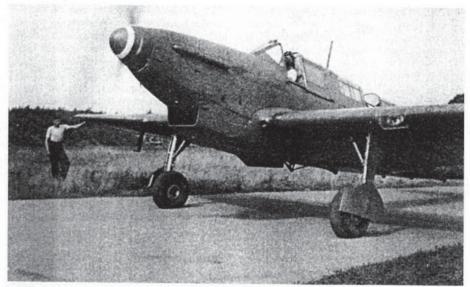
806 Squadron and became part of the RN Fighter Squadron in the Western Desert. 803 and 806 Squadron were then flying Hurricanes. The RN Fighter Squadron came successively under the operational control of the RAF's 234, 264 and finally 269 Wings. The RN Fighter Squadron only flew single-seat fighters; Fulmars being unable to cope with the Bf 109s.

In the meantime, the Fulmars of 805 Squadron had been involved in many actions over Egypt and Crete. A detachment of 805 Squadron had embarked aboard HMS Eagle, in order to reinforce her fighter strength before departing for Greece. A first cruise was made between 30 January and 5 February. The carrier sailed for a second operation on 19 February with a mixed fighter complement of nine Fulmars and five Sea Gladiators. Her main task was to provide air protection to the naval auxiliaries Breconshire and Clan Macauley bringing supplies to Egypt. On 21 February, the ships were within range of landbased enemy bombers and a patrol was flown continuously. Three Heinkel He 111s attacked them. A flight of Fulmars immediately intercepted the bombers; Lt R. MacDonald-Hall shot down one while another was damaged. In March, 805 Squadron was deployed in Crete before returning to the North African theatre in mid-May.

RUSSIAN CONVOYS

Other squadrons had transformed or had been formed on Fulmars during the previous months. One of them was 809 Squadron, which had officially commissioned on 15





January 1941, receiving 12 Fulmar Mk.IIs at Lee-on-Solent. 809 Squadron moved in March to St Merryn for armament training and on 10 June to Hatston awaiting their embarkation aboard *HMS Victorious*. After Germany invaded the Soviet Union on 22 June, the carrier was committed to conduct raids in northern waters and to escort convoys to Russia.

809 Squadron embarked on 2 July, with Albacores of 827 and 828 Squadrons. HMS Victorious, along with HMS Furious, set sail on 23 July for Iceland, where they refuelled before setting course for the Arctic Circle. The Furious also hosted nine Fulmars, those of 800X Flight, in addition to Sea Hurricanes of 880 Squadron, Swordfish of 812 Squadron and Albacores of 817 Squadron. The first

operation consisted in striking German positions in Northern Norway and Finland to ease the pressure on the Soviet Army. *Victorious's* air group was tasked to attack Kirkenes while the aircraft from *Furious* would strike the port of Petsamo.

In the afternoon of 30 July, the aircraft were flown off. Nine Fulmars provided escort for the strike on Kirkenes. The Albacores sank a freighter and damaged another for the loss of two of them due to the flak. They were then bounced by a handful of Messerschmitt Bf 109s and Bf 110s from JG 77, which immediately shot down the two Fulmars crewed by Sub-Lt T.E. Blacklock with Lt A.T. Easton and by Lt L.E. Barrow and Sub-Lt R.S. Miller. All crews were picked up and became PoWs, except Lt Barrow who was

There were many units engaged in Fulmar crew training. Most were equipped with near time expired aircraft such as this Mk.I which was in use by 790 Squadron based at Charlton Horethorne (FAA Museum)

killed. In the ensuing dogfight, Sub-Lt J. Cooper reported a possible kill on a Bf 109. A twin-engined Bf 110 was shot down by Sub-Lt A.E. Wilkinson. The Fulmars had been disorganised by the German attack and were unable to deal with the Luftwaffe's fighters. The Messerschmitts then shot down nine of the slow-flying Albacores

The raid on Petsamo was escorted by six Fulmars of 800X Flight. No worthy shipping was present in the Finnish port and the Fairey biplanes attacked a small steamer and harbour installations. Before reaching the coast, a Fulmar was forced to land in the sea. Sub-Lt E.S. Burke and LA J. Beardsley managed to get into their dinghy and, some 48 hours later, to reach Russian held territory. Fortunately, fighter opposition was less considerable than it was over Kirkenes. In addition to an Albacore, a Fulmar and its crew, consisting of Sub-Lt F.J.G. Gallichan and Pty Off J.F. Black, were lost due to enemy ground fire.

Despite severe losses on the previous operations, a last strike was carried out before returning home. On 4 August, the seaplane base at Tromsø was attacked by Albacores and Fulmars. The Fulmar of Lt H.D. Matthew and Sub-Lt R.A. Burroughs was hit by AA fire and both aircrews were taken prisoner.

The next operation saw HMS Victorious accompany the old Argus and the first convoy of British and Russian merchant ships, whose main load consisted of 48 Hurricanes, on the way from Reykjavik to Murmansk. Contact was made with the convoy on 26 August and all ships sailed eastward, except for the Victorious which made a short journey south for a strike against shipping in the Tromsø area. On 3 September, a shadowing Dornier Do 18 was successfully engaged and shot down by an 809 Squadron Fulmar. The 24 Hurricanes aboard the Argus were flown off to Vaenga on 7 September, while the merchant ships pursued their way to Murmansk. Nevertheless, enemy activity in the area forced the convoy to divert to Archangel. Soon, HMS Victorious left the convoy and sailed south to strike Bodø, before returning home.

The last - and uneventful for the Fulmars - Russian convoy of the year 1941 was escorted in October. When HMS Victorious returned to Scapa Flow, 809 Squadron settled down at Twatt on 26 October 1941. Unfortunately, the crews did not stay home for Christmas as 809 Squadron had to re-join its carrier on 24 December. The Victorious operated with the Home Fleet in the North Atlantic. The next North Russian convoy was escorted in February 1942 and, as usual, Victorious took the opportunity to launch a strike on Tromsø.

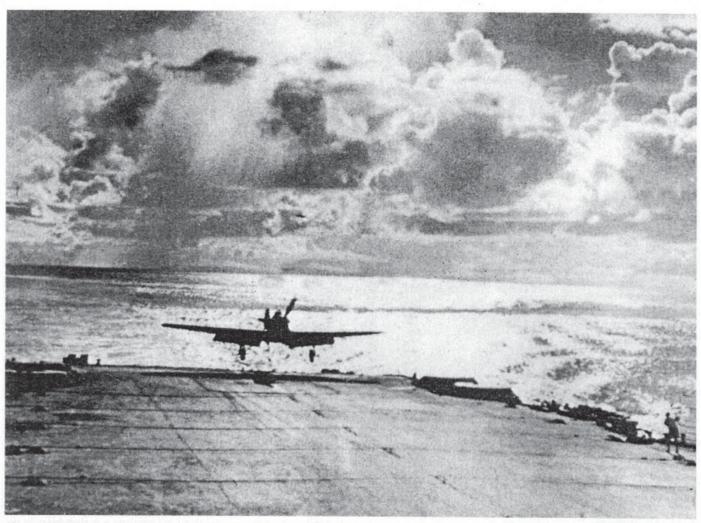
Three German battleships - the *Tirpitz*, the *Admiral Scheer* and the *Prinz Eugen* - were now in Norway and posed a threat to the Russian convoys. On 23 February, *HMS Victorious* launched an unsuccessful attack on the last two named which were berthed in a

Practice bombing. Fulmars were often employed in low level atacks using bombs when based on carriers. This one has just released its bombs off the port quarter of a carrier to simulate a target on shore and check on accuracy of aim and positioning. (FAA Museum)



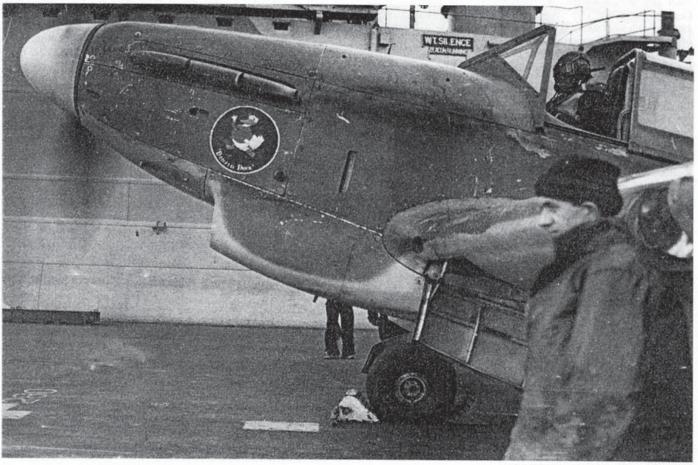


PAGE 24 FAIREY FULMAR WARPAINT



Above: This picture could have been taken anywhere, in the Atlantic, Mediterranean or Far East but shows a Fulmar landing on board a carrier with the setting sun and vast banks of clouds in the background.

Below: Nose art on Fulmars was rare but at least one has survived in picture form. It shows a Donald Duck character on the engine cowling of X8559 an 809 Squadron Fulmar based on *HMS Victorious* in 1942. (FAA Museum)



FAIREY FULMAR WARPAINT PAGE 25



Speed in getting aircraft away from the landing area was vital on board a carrier. All available hands were used to push this Fulmar to either the aircraft lift or to the forward part of the flight deck. The deck arrester wires have not yet had time to reposition themselves. (IWM)

fjord near Stavanger. Two weeks later, the *Tirpitz* weighed anchor and posed a serious threat to convoys PQ 12 and QP 8. The Home Fleet was in a position to intercept the German battleship. Once again, Albacores attacked with torpedoes and paid with the loss of two of them for no result. 809 Squadron took no part in the operation. At the end of the month, the *Victorious* provided escort for another convoy. The carrier returned home on 28 March and 809 Squadron settled down at Twatt.

Further embarkations took place in the ensuing months but these gave no opportunity for the Fulmars to fight enemy aircraft. Carrier protection was not offered to all Russian convoys and even the presence of aircraft did not give every guarantee. That was the case in June 1942 for convoy PQ 17, for whom the *Victorious* provided distant cover. In five days, 20 out 36 merchant ships were lost due to the actions of U-Boats and aircraft. Lessons learnt with PQ 17 made the presence of escort carriers with the convoy a necessary addition, rather than a distant fleet carrier.

WINNING THE WAR IN THE MEDITERRANEAN

After a slight respite following Operation Barbarossa, the war in the Mediterranean picked up again at the end of autumn 1941. The Lutwaffe planned large-scale bomber raids on Malta. The aircraft based on the

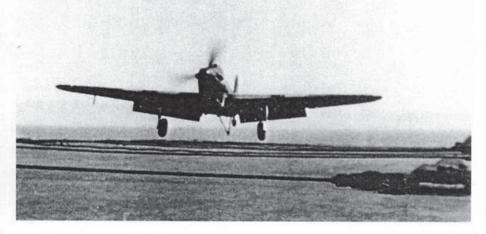
Coming in low over the round down this Fulmar looks like catching either the number 1 or 2 arrester wires for a text book landing (FAA Museum)

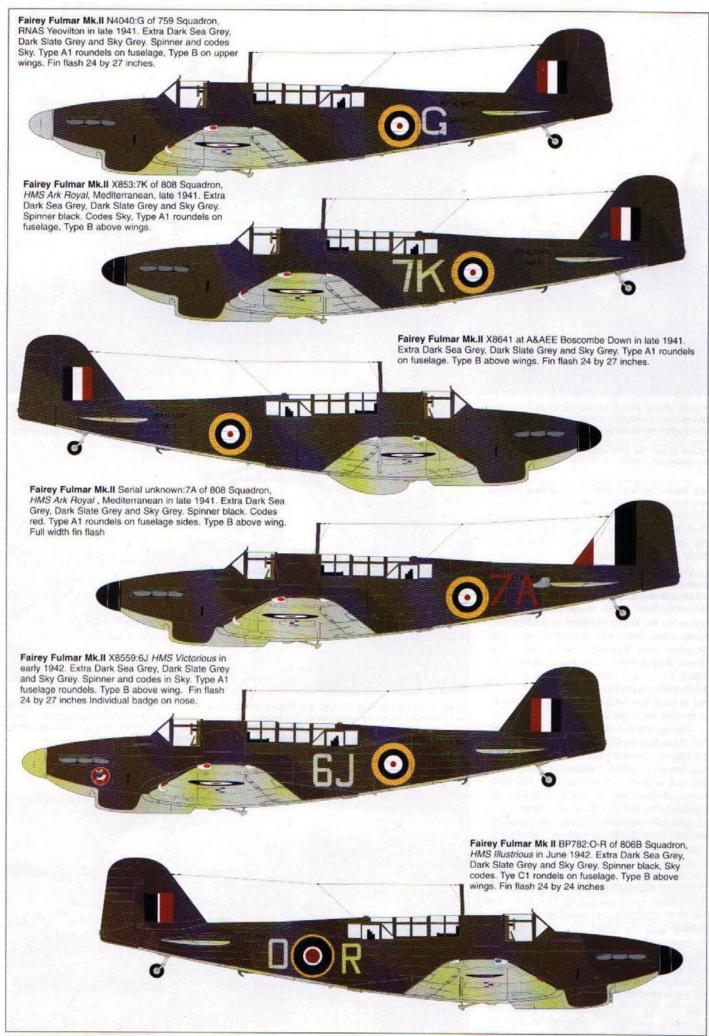
island posed a continuous threat to the supply lines of the Afrika Korps, which was withdrawing after a lightning advance. Since June 1941, Ark Royal and Furious had delivered almost 200 fighters to Malta.

In addition to some small convoys, two larger convoys had reached the island during the first half of 1941 but more supplies were needed and an additional convoy was planned in September, named operation 'Halberd'. With the cover of Force H, all the nine merchant ships but one reached Malta. As usual, the ships were shadowed and the Regia Aeronautica attacked them off La Galite, on 27 September, Twenty-five SM 79s and SM 84s aimed at the battleships and the carrier. managing to hit HMS Nelson. They were engaged by Fulmars, which also had to deal with Fiat CR 42s. When the Italian aircraft retired, they had lost nine of their number and the Fulmars accounted for six Savoias. Two Fiat BR 20s were also claimed. Nevertheless, 807 Squadron recorded the loss of three Fulmars, all of them due to fire from British ships. Two crews were safely picked up (SubLts G.C.M. Guthrie and P. Guy, Pty Off A.T. Goodman, and LA Jones) but Lt M.W. Watson and Sub-Lt P.W.N. Couch were killed. A Cant Z506B, which had just rescued a downed Savoia's crew, was forced to land on the sea by six Fulmars and left on fire. Another Cant seaplane was shot down on the following day.

In November 1941, Ark Royal and Argus flew off 37 Hurricanes and seven Blenheims for Malta. While the ships of Force H were on their way back to Gibraltar, U-81 struck Ark Royal with a torpedo, on 13 November. The Fulmars had just landed on apart from one which was diverted to Gibraltar while the carrier was taken in tow. She did not survive for long as the list grew on the following day and HMS Ark Royal finally sank before reaching Gibraltar.

At Gibraltar the surviving Fulmar joined two others of 808 Squadron and one of 807. These were combined to reform 807 Squadron whereas 808 Squadron disbanded. 807 Squadron remained based at North Front and was made available to the carriers escort-







Above: Nearly a close encounter for this member of the deck handling crew getting out of the way in a hurry from a Fulmar that missed the wire and was trying to recover flying speed in order to go round again. The port wing tip looks as if it could be damaged. (IWM)

ing Malta convoys when they needed fighter reinforcements. Otherwise, they carried out reconnaissance sorties along the coasts of French North Africa and they kept watch on the straits in order to prevent U-Boats from entering the Mediterranean.

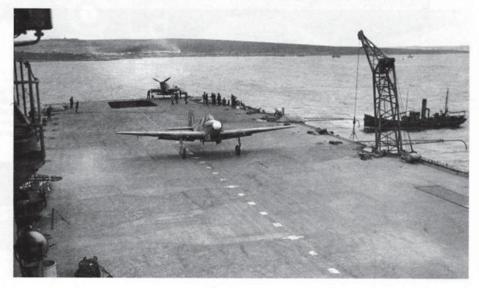
Despite the loss of HMS Ark Royal, deliveries of fighters to Malta resumed in March 1942 with the Eagle and Argus flying off the first Spitfires. These were vital reinforcements for the besieged island as the bombing raids intensified. 807 Squadron generally detached four Fulmars aboard Eagle and Argus during these ferrying operations. In April, USS Wasp ferried further Spitfires to Malta and two similar operations were carried out in May, first with the Wasp and the Eagle, then with the Eagle and Argus.

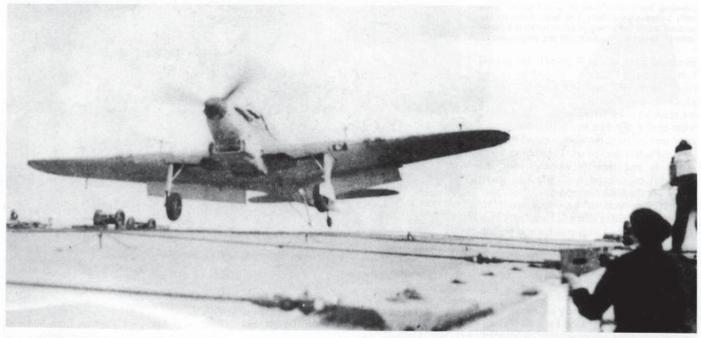
During the second operation, on 18 May, 807 Squadron took on Vichy French fighters off Algiers. Two Dewoitine D.520s of GC II/3 had forced a British Catalina to land on the sea and, with another section from GC III/6, were orbiting over it whilst awaiting the arrival of a ship. A pair of Fulmars was launched to protect the flying-boat until the arrival of the destroyer Ithuriel. Sub-Lt P.E. Palmer and LA W.A. Taylor took one Dewoitine by surprise and shot it down but the second Fulmar fell to the guns of another D.520. Lt P.R. Hall managed to bale out and was picked up by HMS Isis. The TAG, Pty Off H.W. Nuttall, went to the bottom with the Fulmar and was killed. Another section of Fulmars was then sent to cover the destroyer. They were again attacked by French fighters that shot down the aircraft of Sub-Lt P.E. Palmer and LA W.A. Taylor.

Ferrying duties continued in June, but by this time the situation eased a little as the Lutwaffe was fully involved in Russia.



Above: A flying accident in which this Fulmar lost its starboard undercarriage leg and had to be hauled back on board by the carrier's crane. The figure in the foreground is in RAF uniform thus dating the picture to the time before the FAA took over all flying operations. (S.G.Orr). Below: Using the full length of the flight deck this Fulmar is taking off whilst the carier is at anchor. (IWM)





Watched by the deck handling crew this Fulmar NF.Mk.II comes in to a perfect landing over the carrier's round down. (via Ray Sturtivant)

Harpoon Convoy was planned in mid-June. Eleven ships left Alexandria but no air cover was available and they turned back after two days following the lost of several ships. At Gibraltar, the second convoy, comprising six merchant ships, left on 12 June with a large escort including *Eagle* and *Argus*. First air attacks materialised on 14 June off Sardinia. Escorted by Fiat CR42s and Macchi MC200s, swarms of SM 79s, SM 84s and CR42 fighter-bombers arrived over the ships and sank one merchant ship.

Alongside Sea Hurricanes, the few Fulmars of 807 Squadron rushed into the Italian formations. Lt P.R. Hall shot down two SM 79s before being bounced by Fiat fighters. With his aircraft damaged, he attempted to return to

the carrier but was again hit by friendly fire from *HMS Wrestler* and ditched. Only the Observer, Sub-Lt L.D. Urry, was picked up alive. Another crew was downed by AA fire from a British ship, but fortunately both Sub-Lt J.F. Rankin and Mid R.G. Armitage were safe. Sub-Lt G. Spalding and LA J.B. Duncan were probably shot down by Italian fighters. 807 Squadron lost a fourth Fulmar, due to the guns of CR42s. Sub-Lts P.E. Palmer and J.T.D. Ceely were killed in this action but not without having shot down two SM 79s and damaging a third beforehand. In addition, the Italians admitted they lost two CR42s and one SM 84 due to the action of Fulmars.

In the afternoon of 14 June, the British carriers turned back before passing the Sicily narrows and the remaining ships were subject to further attacks by Italian and German aircraft as well as Italian warships. At the end of

the 15 June, only two of the merchant ships survived to reach Malta and two destroyers were sunk and other warships severely damaged. 807 Squadron did not fly ashore at North Front but returned to the UK with the *Argus*. The squadron settled down at Lee-on-Solent on 23 June and prepared to transform onto brand new Seafires.

273 RAF SQUADRON

A valuable new addition to the RN Fleet was the *Indomitable*, who was commissioned in August 1941. Her first mission, in October, was part of her work-up and consisted in the

As HMS Illustrious, with its flight deck crammed with Fulmars and Martlets, turns into wind. HMS Warspite in the near distance opens fire somewhere off Ceylon in June 1942. (via Ray Sturtivant)



FAIREY FULMAR WARPAINT PAGE 29

Loading the Fulmar's eight .303 machine guns with belted ammunition. The large flaps on the aircraft are in the folded position making it rather difficult to get ammunition into the magazines.

escort of a convoy to Bermuda. Aboard the carrier were the Fulmars of 800 Squadron, Sea Hurricanes and Albacores. On 23 October, two Fulmars were scrambled to intercept a Focke-Wulf Fw 200. Both aircraft were unable to return to the Indomitable and only one of the crew were located the next day and safely picked up. The ship sailed to Bermuda and then to Jamaica, but she grounded on a coral reef. She had to set course for the USA for repairs.

At the end of her work-up, HMS Indomitable headed east and rounded Africa. The carrier made a stop at Aden and her aircraft, except the Sea Hurricanes and a number of Albacores, went ashore at Khormaksar on 11 January 1942. They remained there while the Indomitable was involved in ferrying operations, delivering Hurricanes to the Dutch East Indies in January and to Ceylon in March. The situation in the Far East was disastrous since the Japanese were overwhelming all Allied troops. Reinforcements although sparse - were thus dispatched to Ceylon, the strategic centre of the war in the Indian Ocean.

On 16 March, the *Indomitable* finally recovered her Fulmars and Albacores off Aden and, at the end of this month, she set course for Addu Atoll to join the Eastern Fleet. In company with *HMS Formidable*, the *Indomitable* patrolled the Indian Ocean, searching for Japanese warships. On 2 April, a fire in a hangar destroyed or seriously damaged one Fulmar as well as nine other aircraft. The two British carriers evaded a confrontation with the Japanese Fleet and their overwhelming carrier force, which attacked Ceylon on 5 April and, four days later, sank *HMS Hermes* and other British units.

In addition to the Hurricanes of 30 and 261 Squadrons delivered by the *Indomitable* early in March, Ceylon's defences had been strengthened with the arrival of surviving Hurricanes from Java, Bristol Blenheims and Consolidated Catalinas. The Swordfish of *HMS Hermes* were also present on the island. In February 1942, 803 and 806 Squadrons

With a plume of steam streaming fore and aft straight down the carrier's deck indicates that it is steaming into wind allowing a Fulmar a clean take-off into the evening sky. (IWM)



had been withdrawn from the Desert and received Fulmars once again. They also transferred the next month to Ceylon, flying via India. The two Fulmar squadrons settled down at Ratmalana, on 24 March for 803 Squadron and three days later for 806 Squadron. Ratmalana was the civil airport of Colombo; the only other airbase available was China Bay, near the naval base at Trincomalee on the other side of the island. A third landing strip was made on the Colombo racecourse and housed the Hurricanes of 258 Squadron.

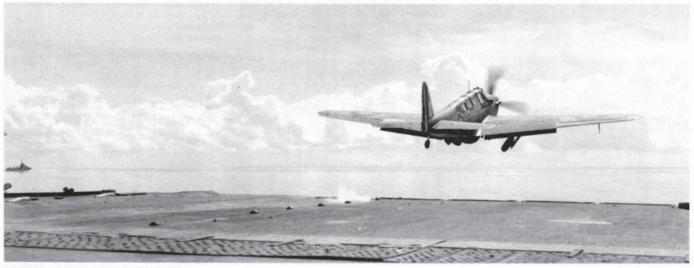
Another RAF unit was present at China Bay; No. 273 Squadron. Still equipped with obsolescent aircraft (Vickers Vildebeests), 273 was hurriedly re-equipped in March with Fulmars as the war closed in. These aircraft were removed from a RN reserve at Cochin, Southern India, and ferried by naval pilots who were subsequently attached to No.273 Squadron.

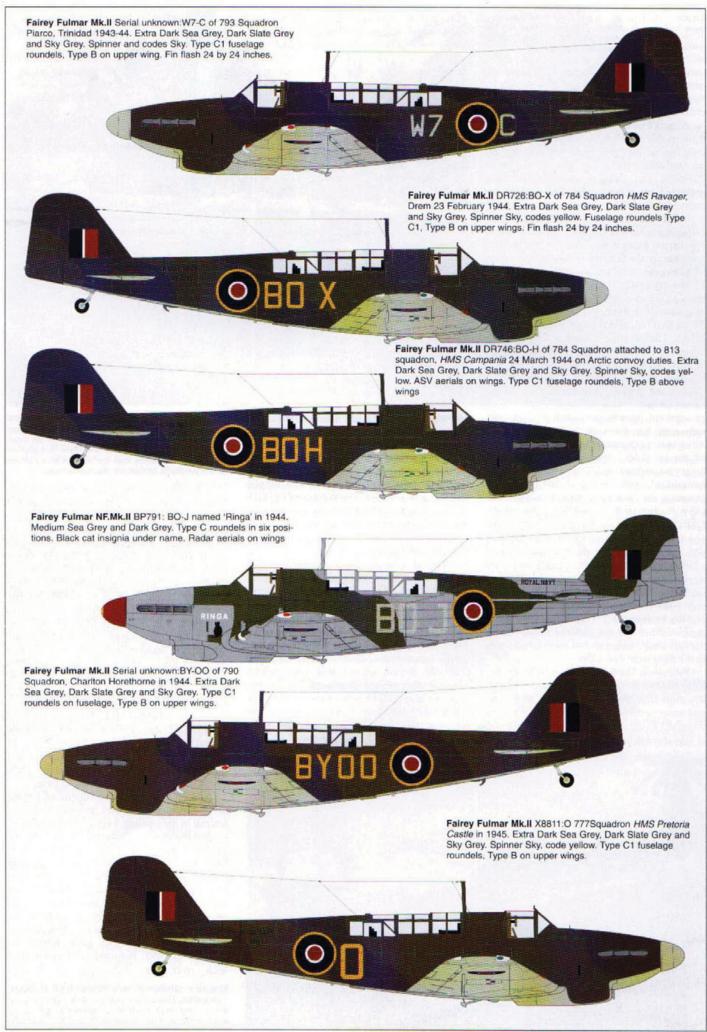
All these units had hardly the time to become operational in Ceylon before the Japanese launched a first raid on 5 April 1942. The Japanese Fleet, including five carriers, had been spotted south of Ceylon on the previous day by a Catalina, whose crew succeeded in transmitting their position before being shot down. All defences on the island were at readiness but the radar was not serviceable this Easter Sunday morning. At first

light on 5 April, six Fulmars from 803 and 806 Squadrons were on patrol along the coast but were too far away when the attack materialized.

The Japanese attack aimed at the remaining British warships in Colombo harbour - the Eastern Fleet had actually sailed away - but a small force was tasked to strike the airfield at Ratmalana. They achieved complete surprise and the Hurricanes and Fulmars got airborne with Japanese aircraft overhead. Having no time to gain altitude and to assemble, the British fighters were at a considerable disadvantage in the ensuing dogfights with the very manoeuvrable Mitsubishi A6M Zeros. Twenty-three Hurricanes were shot down while the FAA squadrons lost four aircraft out of the six Fulmars airborne. In addition, six Swordfish from 788 Squadron, coming from China Bay for a torpedo attack on the Japanese Fleet, were wiped out.

The six Fulmars that got airborne were not in an easy situation against the Zeros. Sub-Lts A.S. Diggens, K.J.M. Pettit and I.K. White-Smith were all killed. Fortunately, the pilots chose to fight without an observer or TAG in the backseat to save weight. The fourth Fulmar lost was piloted by Sub-Lt J.H.C. Sykes. He was probably the victim of Japanese ace Kaname Harada, who claimed five victories during this one sortie. He crashlanded and escaped safely from his aircraft.







Lt M. Hordern was credited with one Mitsubishi A6M.

If the Japanese dive-bombers found no important ships in Colombo (even so they sank 21 merchant ships), they later managed to locate HMS Dorsetshire and HMS Cornwall who had sailed from Colombo during the night. Both cruisers were then easily sent to the bottom by Aichi D3A Vals in the afternoon. With the Eastern Fleet having two cruisers still unscathed, the Japanese planned another raid on Ceylon. They came back on 9 April for an attack on Trincomalee. The aircraft based on the nearby airfield at China Bay - the Hurricanes of No. 261 Squadron and the Fulmars of 273 Squadron - were not numerous but had not suffered losses during the first attack, being too far away to take part in the fight over Colombo.

Once again, the Japanese Fleet was sighted by a Catalina the day before they attacked. All RN ships were thus ordered to sail while several unserviceable aircraft at China Bay were dispersed in the jungle. The radar installation at Trincomalee had been completed and warning was given in time to China Bay. When the Japanese aircraft arrived, four Fulmars and 17 Hurricanes were in a position to intercept them. This time, the fight was more evenly balanced. The RAF fighters claimed 24 Japanese aircraft for the loss of one Fulmar and eight Hurricanes. The Fulmar of Flg Offr A. Gregg and Sub-Lt A.L. Mass was reported missing at the end of the raid. The wreck was found two years later in the jungle, with bodies still in the cockpit.

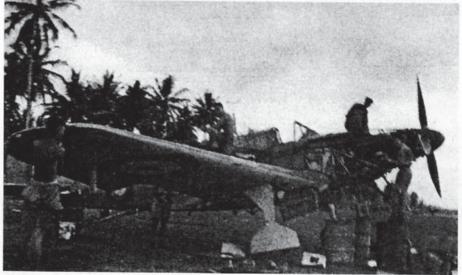
This time again, the Japanese had been unable to catch the Eastern Fleet in harbour and no valuable ships were sunk in Trincomalee. Nevertheless, two Nakajimas on a reconnaissance mission soon reported sighting *Hermes* and her escort sailing away. With the hope of finding the whole Fleet nearby, 85 Japanese dive-bombers were launched. The old British carrier was now sailing towards Colombo with the aim of getting fighter cover but this was a vain attempt. The Vals rapidly swooped down on *Hermes* and the destroyer *Vampire*, both being sunk within 20 minutes.

Refuelling operations going ahead in the tropical heat of RNAS Tanga, Tanganika in 1942. The fuel bowser is tractor drawn and appears to be moving on to the next aircraft in line when this picture was taken. Evidence that the airfield was cut out of the jungle is shown by the palm trees.

A formation of six Fulmars from No. 273 Squadron arrived over the Hermes when the Japanese attack had already crippled the carrier. They rushed into the numerous Vals. Lt P.E.I. Bailey managed to shoot down one Aichi D3A and damaged a second. Other pilots reported hits but the Fulmars were just too late and largely outnumbered to disrupt the attack. Eight Fulmars from 803 and 806 Squadron had also taken off but arrived when the attack was over and HMS Hermes had sunk beneath the waves. The FAA Fulmars intercepted another formation of Vals that were attacking a tanker and a cargo ship. Two Fulmars fell to the guns of Japanese aircraft, Sub-Lts P.R. Peirano and R.F.H. Jacob losing their lives. The former pilot was credited with one Val shot down. Lt R.L. Johnston and Sub-Lt B.H.C. Nation each destroyed one Aichi aircraft. Nine Blenheims from No. 11 Squadron had been sent on a suicidal and hopeless attack on the Japanese carriers. Only two RAF bombers limped back to base.

No.273 Squadron were hopeful of getting more operational Fulmars and received more aircraft in the ensuing weeks, being able to set up two flights of six Fulmars. On 18 June, the squadron moved to a new airbase built in Ceylon and called Katukurunda, which later transferred to the FAA and became the main base on the island. No.273 Squadron had never again to fight with their Fulmars. The only losses were due to flying accidents and they were numerous but not all that serious. From the end of August, pilots ferried the Fulmars to India. Returning to Ceylon, they took over the Hurricanes of No.261

Engine maintenance on a Fulmar Mk.II at Tanga, Tanganika. There were many Improvised items of equipment used such as oil drums to get at the engine during this period in 1942. (FAA Museum)



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Squadron, which moved to Burma and reequipped with Spitfires.

On 23 April, 806 Squadron embarked aboard *Indomitable* to take part in the landings in Madagascar. Two days later, 803 Squadron also left Ceylon, joining *HMS Formidable* for an uneventful patrol in the Indian Ocean. Two aircraft were lost, however. One Fulmar crashed into the sea on 4 May. Sub-Lt R.B. Nicholson survived but his TAG, LA P.F. Dowling, was killed. On 1 August, the Fulmar of Sub-Lt D.N. Elwood and Sub-Lt C. Christelis failed to return to the carrier at the end of its patrol.

803 Squadron finally settled down on 24 August at Tanga, Tanganyika. The squadron remained in East Africa, being either based at Tanga or Port Reitz. On 18 January, 803 Squadron was reinforced by absorbing 806 Squadron, which ceased to exist as a Fulmar unit. 803 Squadron survived until 12 August 1943, the date of its disbandment.

LANDINGS IN MADAGASCAR

With the will not to let Japanese forces establish bases in the Indian Ocean, the British government decided to control the island of Madagascar; a Vichy-held territory on the maritime route along the Eastern African coast. Nevertheless, at this time, the British could not divert enough forces to occupy entirely this large island with difficult communication lines. The plan of operation 'Ironclad' consisted in taking Diego Suarez harbour (at the northern tip of the island), whose naval base - Antsirane - was the only one capable of housing large warships.

On 4 May 1942, HMS Illustrious and Indomitable joined. The former carrier had embarked a sole Fulmar NF Mk.II from 882 Squadron, in addition to her usual complement of Martlets and Swordfish. Aboard the Indomitable were Albacores, Sea Hurricanes, eight Fulmars of 800 Squadron and four Fulmars of 806B Squadron. 806 Squadron had been divided into two flights; one reequipping with Martlets while the second keeping the Fulmars. Not much aerial opposition was expected from the Armée de l'Air, which had only a few out-dated Morane-Saulnier MS 406 fighters and Potez P 63-11 twin-engined reconnaissance aircraft; all surviving examples of May 1940.

The landings took place at dawn on 5 May, with support from Fairey biplanes and cover by single-seat fighters. Swordfish and Albacores attacked the harbour of Antsirane and the airfield at Arrachart. The Fulmars were restricted to tactical reconnaissance inside the island and over the sea to warn off any Japanese intervention. An aircraft from 806B Squadron, piloted by Lt Cdr N.A. Bartlett, force-landed in the sea due to lack of fuel. After fierce resistance despite their meagre forces, the French finally evacuated Diego Suarez and Arrachart at midday of 7 May.

HMS Indomitable stayed at Diego Suarez until 19 May. Then, she sailed in the Mozambique Channel, looking for Japanese raiders. The Indomitable finally rounded Africa to take part in operation 'Pedestal'. Before being involved in the Malta convoys, 800 Squadron handed its Fulmars over during the summer and re-equipped with Sea Hurricanes. The other Fulmar unit aboard the

Indomitable, 806B Squadron, disembarked on 23 May at Port Reitz to wait embarkation (as a full squadron) aboard Illustrious on 29 May.

It was not long before the Japanese came into the area; aircraft from submarines making a reconnaissance in May and midget submarines sinking a tanker and damaging the Ramillies in June. Despite Diego Suarez being the sole harbour able to house large warships, the British Command feared that Japanese raiders or submarines had made stops in the other ports, like Majunga, before attacking the shipping in the Mozambique Channel and Indian Ocean. A decision was therefore taken to capture the entire island of Madagascar. It was impracticable to launch an offensive from Diego Suarez and, again, landings from the sea were planned; one on the west coast at Majunga and the second landing on the east coast at Tamatave.

Only one aircraft carrier - the *Illustrious*, with Fulmars of 806B Squadron aboard along Martlets and Swordfish - was made available for the operation, named 'Stream'. Not much aerial opposition was expected as, since the conquest of Diego Suarez, the Armée de l'Air in Madagascar received no more supplies and only two MS 406s and three P 63-11s were serviceable.

On 10 September 1942, the first landing was carried out north of Majunga. The troops rapidly moved inside the city and then headed in the direction of the capital Tananarive. Another landing took place in the harbour of Majunga with the support of the Walrus of HMS Albatross On the first two days, Fulmars carried out reconnaissance ahead of the troops, on the road to Tananarive. With the

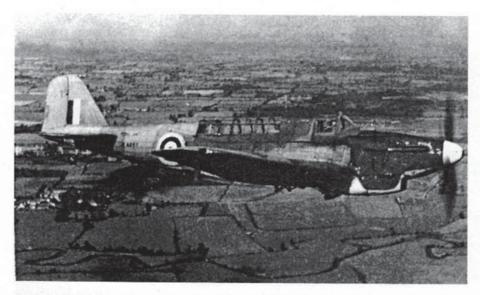
fall of Majunga and its airfield, SAAF Beauforts and Marylands as well as RAF Lysanders landed and provided close protection for the Army. Two FAA units also settled down at Majunga, 795 and 796 Squadrons flying respectively Fulmars and Albacores. 795 Squadron had been formed at Tanga, Tanganyika, on 24 June 1942 as the Eastern Fleet Fighter Pool. At the end of August, six Fulmars had embarked aboard the *Illustrious* to take part in operation 'Stream'.

The *Illustrious* then withdrew on 11 September and set course for Diego Suarez. She made a short stop and sailed down along the east coast. A second series of landings were launched around Tamatave on 18 September. There was no opposition and, at the end of the day, *Illustrious* left the area and sailed for Durban, putting an end to her involvement in the operations over Madagascar. 806 Squadron went ashore at Stamford Hill until their carrier sailed again on 14 October. They were soon disembarked for good at Port Reitz. 806 Squadron stayed in East Africa until personnel and aircraft merged with 803 Squadron on 18 January 1943.

The Fulmars of 795 Squadron were still active, carrying out reconnaissance sorties. Since the departure of *Illustrious*, they were the only fighters available in Madagascar. Nevertheless, they were not enough to provide valuable air cover over the island as the surviving French aircraft tried to disrupt the troops' advance. On 23 September, the capital was taken but the French forces established Dummy Deck Landings (ADDLS) were carried out during pilot training, in this case at RNAS Yeovilton. The man with the flags is indicating 'cut engine' (FAA Museum)



FAIREY FULMAR WARPAINT



another defence line to the south, in front of Fianarantsao.

On 25 September, during a night flight, Lt L.M. Cheer crashed his Fulmar on a hill and was killed. In order to get rid of the Moranes and Potez nuisances, SAAF bombers carried out, on 7 October, raids on all the known airfields that could provide shelter to aircraft. During these operations, a Potez was spotted and chased by two Fulmars, but it evaded the slow Fairey aircraft. Another Fulmar of 795 Squadron, with Sub-Lts R.H. Simpson and A.G.M. Willson aboard, force-landed, fortunately near British troops. The squadron lost another Fulmar on 21 October due to a flying accident and, again, the pilot escaped safely.

The last appearance of a French aircraft was on 20 October but the combats continued until the French governor accepted surrender terms on 6 November, almost two months after the start of 'Stream'. Due to the difficult conditions in Madagascar and deficient supply lines, 795 Squadron ended with only three Fulmars. Both 795 and 796 Squadrons were loaded aboard the *Albatross* and transferred to Tanga, in Tanganyika, on 13 November. 795 Squadron survived in Eastern Africa until disbandment on 11 August 1943.

PEDESTEL AND TORCH

In August 1942, the Royal Navy mustered no less than five aircraft carriers in order to escort a large convoy, consisting of 13 transports and a tanker, to Malta. The small island was in urgent need of supplies since the Axis Forces had made a determined blockade. Two Fulmar Squadrons took part in this operation: 809 Squadron with 12 aircraft and 884 Squadron with six aircraft, which both embarked aboard HMS Victorious along with six Sea Hurricanes of 885 Squadron. Further Sea Hurricanes and Martlets found space aboard Indomitable and Eagle while Argus and Furious were mainly used to ferry 38 Spitfires, which would be flown off, but Furious retained six Sea Hurricanes.

From the outset, things turned out badly for the British. The convoy passed through the straits of Gibraltar on 10 August and set sail for Malta. On the following day, Axis aircraft

Seen during the Madagascar landings this Fulmar Mk.II of 806 Squadron is being manhandled by the flight deck crew on board *HMS Illustrious* to the rear of the flight deck (FAA Museum)

shadowed the Fleet at a respectful distance and tried to keep contact all day. A continual fighter patrol of four aircraft had been kept over the ships and these aircraft were directed to intercept while other fighters were launched. The Fulmar of Sub-Lt I.F. Voller had to force-land in the sea and the crew were rescued by the Wishart. After midday, HMS Furious began to launch her Spitfires before sailing back. Soon afterwards Eagle was torpedoed by U-boat U-73 and rapidly sank. In the evening, a large formation of Ju 88s and six He 111s appeared over the ships. Fighters from Victorious and Indomitable were at readiness and intercepted them, but without any success. Two Fulmars of 809 Squadron were damaged on landing back at night. This first raid only caused slight damage.

In the morning of 12 August, aerial attacks resumed and continued all the day, with Regia Aeronautica and Luftwaffe bombers succeeding each another over the ships. They inflicted severe damage to *Indomitable* and to other ships and to sank two cruisers and a destroyer while only five merchant ships were able to reach Malta (losses of transports happened on 13 August, when the RN warships had turned back). *HMS Victorious* was also hit by a bomb dropped by one Reggiane Re.2001 single-seat fighter-bomber of 22° Gruppo. Fortunately, damage was superficial as the armoured deck withstood the explosion. At the end of the day, when RAF aircraft from Malta took over

A Fulmar Mk.I N4097 of 761 Squadron based at RNAS Yeovilton in 1941 was used for advanced pilot training. No unit markings appeared on these aircraft. (FAA Museum)

protection, the British ships headed westwards and returned to Gibraltar.

The FAA fighters accounted for 39 enemy aircraft on this one day and, despite their low performance and limited number, the Fulmars took their toll. A shadowing SM 79 was shot down by two Fulmars of 884 Squadron. Sub-Lt R.J.H. Grose of 809 Squadron reported a probable kill on a Ju 88. Three aircraft from 884 Squadron (piloted by Lt N.G. Hallett, Lt F.A.J. Pennington and Sub-Lt J.H.O. Nihill) intercepted a SM 79 and shot it down but, before that the Italian gunner hit the Fulmar of Sub-Lt J.H.O. Nihill and LA W.R. Regan who were both killed.

The Regia Aeronautica also sent formations of Savoia SM 84s. Several of these threeengined bombers fell to the guns of Fulmars from 884 Squadron. A section, made up of Lt N.G. Hallett with Sub-Lt T.D. Haskey and Lt F.A.J. Pennington with Pty Off L.F. Barrick, was particularly successful as they claimed having shot down three SM 84s as well as one SM 79. While attacking another SM 84, Lt R.A.F. Churchill and Sub-Lt A. Nunn were hit by return fire and both were killed. This bomber was then shot down by other Fulmars from 884 Squadron. Amongst them was the aircraft of Lt D.G. Parker and LA A.F. Ferguson who succeeded in downing another Savoia. Further formations of Ju 88s and SM 79s continued to come over the ships.

In the evening of 12 June, Italian Stukas escorted by Macchi MC 202s attacked the ships. Once again, the FAA fighters tried to intercept the Ju 87s but the escort Macchis were watchful and aggressive, managing to shoot down or damage several aircraft, one of whom was an 884 Squadron Fulmar crewed by Sub-Lt D.S. Hill and Pty Off L.J. Gascoyne. Sub-Lt C.J. Evans and LA J. Stewart from 809 Squadron lost their lives when their Fulmar was shot down by fighters.

After the escort of the Pedestal convoy, HMS Victorious returned to the UK. 809 Squadron rejoined St Merryn and remained ashore until mid-October 1942. In preparation for the North African landings, code-named 'Torch', the crews received specific Army Co-operation and Tactical Reconnaissance training at Sawbridgeworth. For this Tac/R



role, fixed cameras were installed on the Fulmars. The crews also trained with the forerunner of the napalm bomb, a four-gallon drum containing benzene and phosphorous. On 1 October, 809 Squadron was divided into two parts to form 879 Squadron; both units having a complement of six Fulmars.

809 Squadron joined HMS Victorious on 19 October, being part of a large fighter component which also included 882 Squadron flying Martlets and 884 Squadron now equipped with Seafires. In addition to five US Navy carriers, seven British carriers were involved in the invasion of North Africa. The Victorious was part of the Central Naval Task Force, with HMS Formidable, Furious, Biter and Dasher, whose objective was Oran. The FAA aircraft received American markings as the Mers-el-Kébir and Dakar events of July 1940 had made the French feeling deeply resentful about the British.

The assault was launched in the early hours of 8 November 1942. Fighter patrols over the coast and ships were carried out by the single-seat fighters. Fulmars were tasked with Army support and made tactical reconnaissance sorties to inform the American landing troops about the French positions. Two Fulmars were hit by AA fire and one of them ditched before reaching the *Victorious*.

HMS Victorious left the area on 13 November and finally returned to UK on 18 November, with 809 Squadron going ashore on 23 November. The Fulmars of 809 Squadron never embarked again as the unit stayed ashore until it re-equipped with Seafires. In the meantime, 809 Squadron was attached to RAF Fighter Command, operating from Charlton Horethorne and Doncaster. On 22 March, the squadron moved to Stretton and re-equipment with Seafires began the next month.

CATAPULT FIGHTERS

804 Squadron, which had been flying Martlets since September 1940, was earmarked to provide 'expendable' aircraft for Fighter Catapult ships - auxiliary naval vessels (also called banana boats) equipped with a cordite-powered catapult and manned by RN personnel - began to receive Fulmar Mk.IIs and Sea Hurricanes from March 1941. Both types of aircraft were specifically modified for catapulting while the pilots of 804 Squadron undertook catapult training on Swordfish at Gosport.

At that time no escort carrier was available for convoy protection, so their role was to counteract the Focke-Wulf Fw.200s that attacked merchant ships out of range from land-based fighters and also homed U-boats onto convoys. Once catapulted, the fighter attacked the Condor and then there only remained three possibilities for the pilot: baling out, landing on the sea near the ships, or attempting to reach a place to land if petrol permitted.

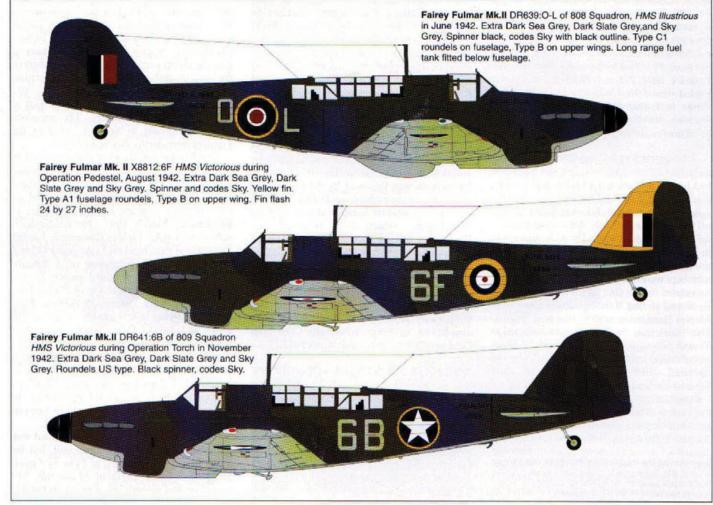
Experience in using Fulmars on a catapult ship had been gained during the winter. On 1 December 1940, a flight of three Fulmars from 807 Squadron was embarked aboard HMS Pegasus. The catapult ship escorted a convoy leaving Liverpool. From dawn to dusk, the Fulmar on the catapult was at readiness with an aircrew - relieved every four

hours - and the engine was kept warm.

Only one launch was carried out to engage an enemy aircraft, on 11 January 1941. Pty Off F.J. Shaw was catapulted too late to take on the Condor and, after a chase, headed for Northern Ireland and safely landed. The two Fulmars of 807 Squadron returned to their home on 10 February. Although the Fulmar lacked speed advantage, the idea proved valuable and it was planned to use RAF Hurricanes, depending on availability, aboard catapult armed merchant ships (CAM ships). Training RAF personnel and equipping an RAF unit with modified Hurricanes was a long task. In the meantime, the Admiralty decided to dedicate 804 Squadron for a similar role aboard the Fighter Catapult ships Maplin, Ariguani, Springbank and Patia (the latter was sunk by a He 111 on 27 April before an aircraft could embark) and operated them on the routes to Gibraltar, while the CAM ships were first intended for the Atlantic and Artic routes.

On 4 April, one Fulmar joined *Pegasus* for escort duties. At the beginning of April, the *Ariguani* and the *Springbank* had completed their sea trials and waited to embark aircraft of 804 Squadron. On 12 April, Lt T.J.A. King-Joyce and Sub-Lt F.M.C. Harvey each took a Fulmar for initial training with the two Fighter Catapult ships. The *Maplin* was ready in May when she embarked two Sea Hurricanes.

The Ariguani was the first to launch her Fulmar on 11 May. Sub-Lt F.M.C. Harvey and LA D. Sykes encountered problems with the R/T and were unable to draw close to the Condor giving up the chase and reaching





A lone Fulmar, Martlets of 882 Squadron, Albacores of 832 Squadron and Seafires of 884 Squdron prepare for the Operation Torch landings in North Africa. Each has the British roundel replaced by one of American origin before the actual invasion. (IWM)

Iceland, landing at Kaldadarnes. On 7 June, Lt. B.F. Cox was shot off from *Pegasus* but again the Fulmar failed to catch up with the Fw 200. Fortunately, he was able to land at Sydenham, in Northern Ireland. The *Springbank* fired off her Fulmar, with Pty Off F.J. Shaw at the controls, on 10 June. In order not to cross over the ships, the pilot first circled the convoy and this gave the Condor time to flee into clouds. Pty Off Shaw fired inoffensive long range bursts at the four-engined aircraft. He successfully landed at Aldergrove, with only five gallons of petrol left.

During the two first months of operations with the Fighter Catapult ships, 804 Squadron had lost no aircraft and all pilots had found a place to land. Luck did not last when Sub-Lt T.R.V. Parke and LA E.F. Miller were fired off the Pegasus on 7 July. After an unsuccessful chase, the pilot made for Aldergrove but, in bad visibility and rain, he flew into high ground on the Mull of Kintyre. Both crew members were killed. If the Fulmars were not successful in shooting down the Condors, Lt R. Everett flying a Sea Hurricane from the Maplin managed to destroy one on 2 August. From August, some Fulmars were returned to Yeovilton and replaced by Sea Hurricanes. Several CAM ships were then available and operated RAF-manned Hurricanes. 804 Squadron's operations aboard the Fighter Catapult ships were nevertheless pursued until the autumn of 1941. The next catapult launch took place aboard the Ariguani on 26 August. Sub-Lt M.A. Birrell and LA D. Sykes chased a Condor for many miles in vain and had to give up and head for land. They got lost and landed on a beach in Ireland to obtain their exact position before taking off again for

Eglinton.

In September, the Springbank was involved in the escort of convoy HG 73, whose 25 merchant ships left Gibraltar on 17 September. On the next day, a Condor found the convoy and the Fulmar of Pty Off Shaw and AG Lilley was fired off. They succeeded in driving off the Focke-Wulf but were unable to shoot it down due to all but one of the guns being defective. The Fulmar returned to Gibraltar and landed at North Front. On 24 September, the ships were again shadowed by a Condor, which rounded up several German and Italian submarines. Between 25 and 27 September, they accounted for nine merchant ships and U-201 torpedoed the Springbank on the night of 26-27 September.

By mid-October, the complement of Sea Hurricanes had grown to 12 machines while only two Fulmars remained attached to 804 Squadron in case they were required for operations aboard the Pegasus. The sinking of the Springbank was followed by the loss of the Ariguani, also torpedoed, on 28 October. This left only one Fighter Catapult ship in service; the Maplin, which only received Sea Hurricanes, and the Pegasus, which was used for training purposes. In addition, further CAM ships entered service and, even though no RAF Hurricane had been catapulted at this time, the RAF Merchant Ship Fighter Unit had to take over while 804 Squadron was temporarily reduced and some pilots were dispatched to other squadrons. The two Fulmars were retained until April 1942.

THE LAST FRONT LINE SOUADRONS

The last units to form with Fulmars were in a new range of numbers: 884, 886, 887 and 889 Squadrons. 884 Squadron formed at RNAS Donibristle with six Fulmar Mk.IIs, on 1 November 1941. It was intended to join the escort carrier *Biter* but, due to an accident while in dry docks, the ship's entry into service was delayed until September. In the mean-

time, 884 Squadron had been deployed aboard *HMS Victorious* on 23 July 1942 to escort the Pedestal convoy to Malta. The ship then returned to the UK and 884 Squadron went ashore at Lee-on-Solent on 21 August. The following month, the squadron reequipped with Seafires.

When HMS Biter became operational, the Admiralty had to find another fighter unit. 808 Squadron, which had been absorbed by 807 Squadron after the sinking of its homecarrier, had been reformed with six Fulmar Mk.IIs, on 1 January 1942, and was chosen to join the escort carrier. The Fulmars embarked on 6 September for a work-up cruise. Nevertheless, on 27 September, 808 Squadron left Biter before she took part in the North African landings. The squadron soon transformed to Seafires, handing the Fulmars over during November 1942.

Six Fulmar Mk.IIs were also delivered to 886 Squadron when it formed at Donibristle on 15 March 1942. The squadron kept these aircraft for one year, 886 Squadron had no opportunity to embark before converting to Seafires in March 1943. Nevertheless, it served with RAF Fighter Command, joining 14 Group at Peterhead on 13 August 1942 and then 13 Group at Turnhouse on 1 January 1943. The Fulmars provided escorts for the ships off eastern Scotland. On such a mission, two aircraft were lost on 25 August. Both Fulmars - flying in low clouds - crashed into a hill and Sub-Lt D.M. Lawler was killed while the three others survived with injuries.

887 Squadron formed at Lee-on-Solent on 1 May 1942, with the same complement of aircraft. 887 Squadron also joined RAF 14 Group, at Dyce, for escort operations. In December, the squadron returned to Lee-on-Solent to trade its Fulmars for Seafires.

The day after 886 Squadron formed saw the creation of another Fulmar unit, but far away from Great Britain, at Fuka in Egypt, and with a full strength of 12 aircraft. 889 Squadron had actually its ancestry in the RN Night Fighter Unit at Aboukir and the RN Fighter Flight at Dekheila, which were flying Fulmars from September 1941. From October, RAF Hurricanes equipped with sand filters were added to the complement of the RN Fighter Flight. The single-seat fighters were used in the Western Desert while the Fulmars pursued their convoy protection and night-defence duties over the Canal zone. The few encounters between Fulmars and enemy aircraft were not to the advantage of the British fighters. Sub-Lt F.P.B. Sanderson was shot down while attacking Ju 88s on 28 December 1941. On 23 February 1943, 889 Squadron finally disbanded.

Two other fighter squadrons received Fulmars but only as a stop-gap measure. When 893 Squadron formed on 15 June 1942, three Fulmars were added to their six Martlets and left again in September with the arrival of further Grumman fighters to reach the normal complement. 897 Squadron formed on 1 August 1942 with a mixed fleet of three Fulmars and three Seafires. After only one month, the squadron disbanded.

NIGHT FIGHTER

From the beginning of the Fairey Firefly's development it was planned to produce a night-fighter variant. Nevertheless, its introduction in service was far away and, since the second half of 1940, the Royal Navy was subjected to night attacks by the bombers of the Luftwaffe and Regia Aeronautica in the Mediterranean. But the Fleet also needed a fighter that was capable to catch the shadowers when they evaded in the clouds. The Admiralty turned to the Fulmar, then the only naval fighter that was able to carry the necessary equipment and had room for the radar operator.

Installation of an Air Interception AI Mk.VI radar, with separate transmitting aerial and receiving dipoles, was undertaken on a Fulmar Mk.II by the personnel of the Naval Air Radio Installation Unit at Lee-on-Solent. The results of the ensuing trials proved disappointing, particularly at low altitudes, due to a high proportion of ground returns. It was then decided to try a previous AI set, the Mk.IV, which was fitted early in 1942. The installation consisted of three transmitter and receiver antennas on each wing. All these antennas induced drag and the top speed decreased by around 20 mph.

Further development of AI sets was triedout on Fulmars. During the spring of 1943, an AI Mk.X was fitted. This was a completely different system, consisting of two separate parabolic antennas in radomes under each wing, one for receiving and the second for transmitting signals. This was a weighty piece of equipment for the already slow Fulmar. Nevertheless trials of this installation gave valuable information for the Firefly nightfighter.

Except for the radar antennas, the Fulmar NF Mk.II externally differed from the day-fighter versions by the presence of a whip antenna, in place of the mast on the top fuse-lage, as well as exhaust anti-glare shields also installed on several day-fighter Fulmars. The armament consisted of four 0.50in guns. The night-fighters were given the priority for the heavy guns as they generally needed to kill their target in one pass before it took eva-

sive actions and escaped.

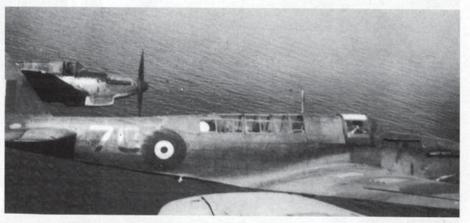
About 50 Fulmar NFs Mk.II were delivered. A further batch of 50 Fulmars also received night-fighter equipment but retained the eight 0.30in Brownings as they were dedicated to training roles. The first aircraft to receive an AI Mk.IV set was N4072, an old machine that had served with 804 Squadron aboard catapult ships.

The poor performance of the Fulmar NF Mk.II finally made it unsuitable for front-line operations. Six production aircraft were first delivered to 784 Squadron, a dedicated nightfighter training unit which had formed at Leeon-Solent on 1 June 1942 to develop the tactics, gain experience in night operations and try the Fulmar night-fighter operationally aboard carriers. In addition, the unit had several Avro Ansons equipped with AI radar for training purposes and calibration flying as well as Vought Chesapeakes acting as preys for the Fulmar NF Mk.IIs. 784 Squadron was also tasked with the formation of the crews designated to fly the future Firefly NF.II, which was developed to become the standard FAA embarked night-fighter. Actually, problems with the radar put an end to the Firefly NF.II's development but, fortunately, Fairey successfully produced the Firefly NF.I with an American ASH Set.

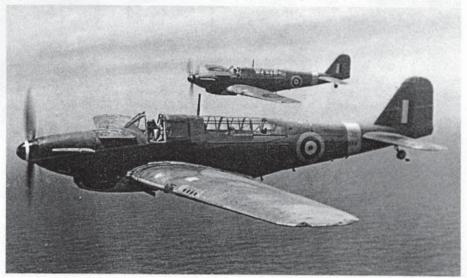
784 Squadron moved to RAF Drem, becoming the nucleus of the Naval Night Fighter Section, on 18 October 1942. The aircraft complement slowly grew to 12 Fulmar NFs Mk.II. At the same time, 746 Squadron was formed, as the Naval Night Fighter Interception Unit, at Lee-on-Solent on 23 November 1942 with the task of developing naval night-fighters and equipment. 746 Squadron operated six Fulmars, three of them being NF Mk.II variants, and had to join the RAF Fighter Interception Unit at Ford, moving there on 1 December. From May 1943, Firefly NF.Is turned up and progressively superseded the Fulmars.

Early in 1944, 784 Squadron was divided into three flights, each consisting of three Fulmar NF Mk.IIs. These flights were earmarked for an escort carrier and were associated to a composite squadron: 835 Squadron and HMS Nairana, 825 Squadron and HMS Vindex, 813 Squadron and HMS Campania. These ships were all British-built conversions from cargo vessels or liners and, unlike the numerous US-built escort carriers, were of sturdier construction and featured a longer -but far less large deck, leaving no margin to the pilot on deck-landing - steel deck and an enclosed hangar.

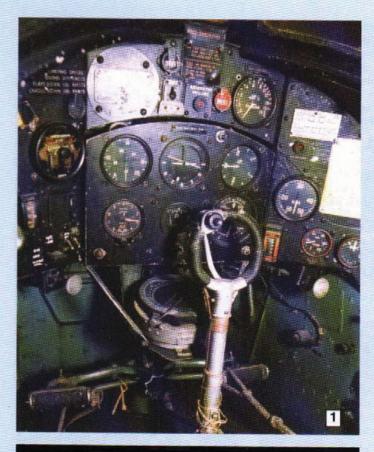
First to embark was the flight that joined the *Nairana*, on 24 February 1944. The three night-fighter Fulmars remained aboard the escort carrier until 15 March. They escorted convoys OS69/KMS43 bound to Gibraltar. On the way back to England, protection was given to convoy MKF29. The Fulmar NF Mk.IIs had no opportunity to fly at night or to intercept enemy aircraft. Despite appalling weather, they managed to fly a handful of day missions but two of them were damaged in deck-landing accidents. However, they proved valuable in providing an all-weather



Above: Two Fulmar Mk.Is from *HMS Formidable* in February 1941N2005:7G, the nearest, has a white top to the canopy presumably as a cockpit heat repellant. Below: These two Fulmars are interesting in that although their unit cannot be identified, they have Fighter Command Sky bands round the rear fuselage



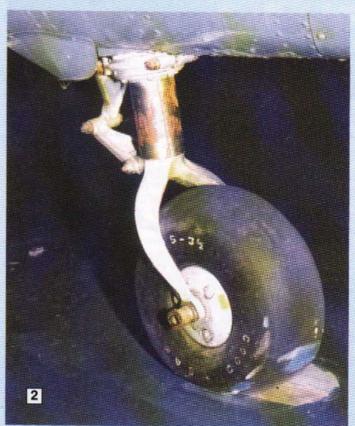
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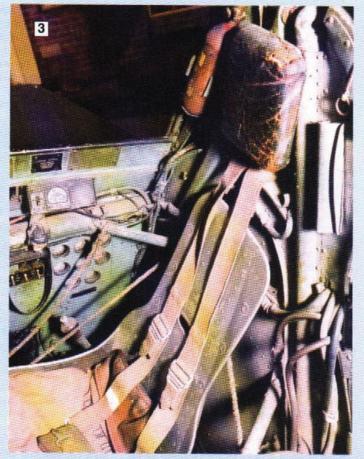


Fulmar in detail

Pictures of the FAA Museum's Fulmar by the author

1. The cockpit interior, showing the blind flying panel and the engine instruments angled at each side. 2. The Fulmar had a massive tailwheel to take the shocks of deck landing and was non-retractable. 3. The pilot's seat and harness. On the right of the head rest is a fire extinguisher. 4. The pilot's canopy slid rearward to open and two hand holds were positined each side. 5. The rear canopy. Note that this aircraft had a whip aerial rather than a mast.



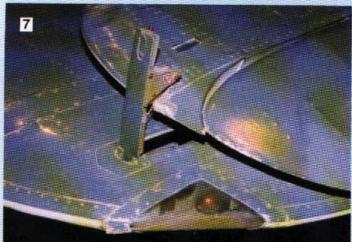


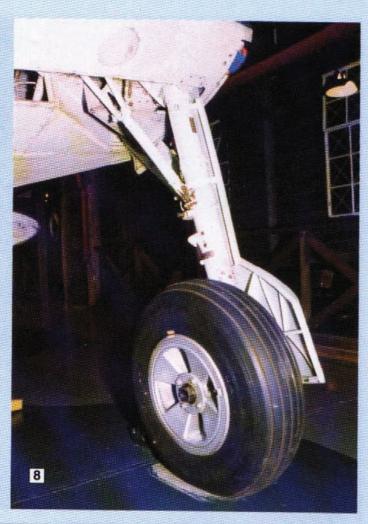




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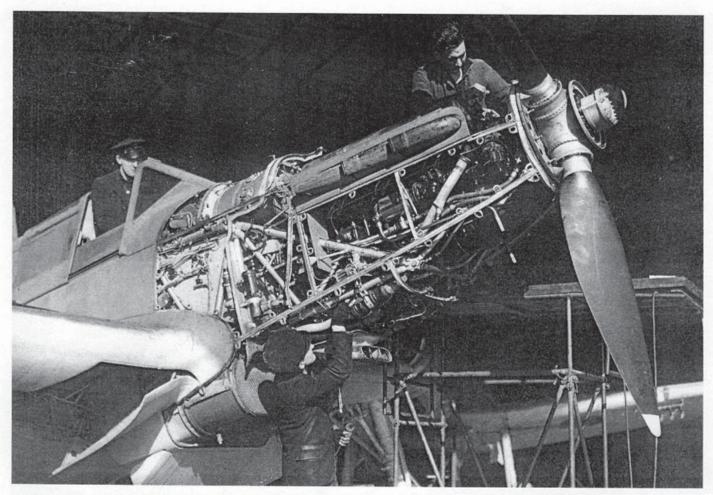


6. The Fulmar's tail unit. Overall colour scheme was Extra Dark Sea Grey and Sky. 7. An interesting feature was the retractable locking unit that held the wing to the tail unit when the wings were folded. 8. The inside leg of the port undercarriage and main wheel. The aircraft's wings were folded in this view. 9. Formerly Falrey's communications aircraft registered G-AIBE before being handed back to the FAA Museum. This nose view shows the neat cowling of the Rolls Royce Merlin 30, a squadron badge and the three bladed Rotol propeller. 10. The Fulmar required a very large bay to take the undercarriage when retracted. Note also the flap extending aft from the nose radiator to release gasses from the engine. The squadron badge appeared on both the port and starboard sides of the fuselage









A close up view of the Fulmar's 1,275hp Merlin VIII engine and the large air intakes underneath. This looks like a factory fresh aircraft as few signs of scuffing are evident. (FAA Museum)

capacity to the convoy's air defence.

On 15 April 1944, the sub-flight of 784 Squadron joined 825 Squadron aboard the *Vindex*. The spell aboard the escort carrier was particularly short as the Fulmars returned ashore on 23 April. The Fulmar NF Mk.IIs attached to 813 Squadron were embarked on 13 March 1944. Except for four short periods ashore, the Fulmar flight was aboard the *Campania* for almost one year, returning home on 1 March 1945.

In June 1944, HMS Campania joined HMS Activity to escort convoys SL159/MKS50 and 0S79/KMS53. The following month, the Campania accompanied convoys OS82/KMS56 and SL163/MKS54 and, in August, convoys OS85/KMS59 and SL166/MKS57. The Campania sailed together with HMS Striker in September to cover Russian-bound JW60 and homebound RA60. November saw the Campania sail twice for the passage of convoys JW61A, which repatriated Russian PoWs, and RA61A and then,



in conjunction with Nairana, JW62 and RA62.

Both the Campania and the Nairana escorted JW64, which had sailed from the Clyde on 3 February 1945, bound for Removing the engine from a Fulmar of 273 Squadron at China Bay, Ceylon in 1942. The wooden tripod legs are interesting (AWM)

Fulmar kits, decals and accessories

ru	ımar	KITS, a	ecais	and	accessories
Scale 1:72 1:72 1:72 1:72 1:72 1:72 1:72 1:72	Type Fulmar	Manufacturer Aeroclub Airwaves Pegasus Czech Master kits Merlin Models Rareplanes Revell Xtraparts Aeroclub Airwaves Alrwaves Falcon Moskit	Reference ABV050 AEC72061 CC169 CMR0182 MN20 RP02007 RV4127 XP005 APB047 AEC72061 AEC72224 FNCV1972 MOS4860		Remarks Main and tail wheels Interior details Complete kit Complete kit Complete kit Vacuform kit Same moulds as Vista and Smer Canopy Engine and propelller Etched parts Etched parts for wing fold Canopies Exnaust pipes.

Murmansk. A Fulmar NF Mk.II was flown off *Campania*, on 8 February, in order to intercept a shadowing Ju 88. After a 90 minute chase, the Fulmar had closed to within a mile and a half of the German aircraft. At this moment, the radar broke down and they were compelled to give up the interception. On landing, Sub-Lt K.M. Hicks crashed into the barrier of *HMS Campania*, after the arrester hook had failed. The aircraft was written off and no more use of a Fulmar was made aboard an aircraft carrier and all remaining Fulmars quickly scrapped.

