



WARPAINT SERIES No. 50

Bristol BEAUFORT

By TONY BUTTLER

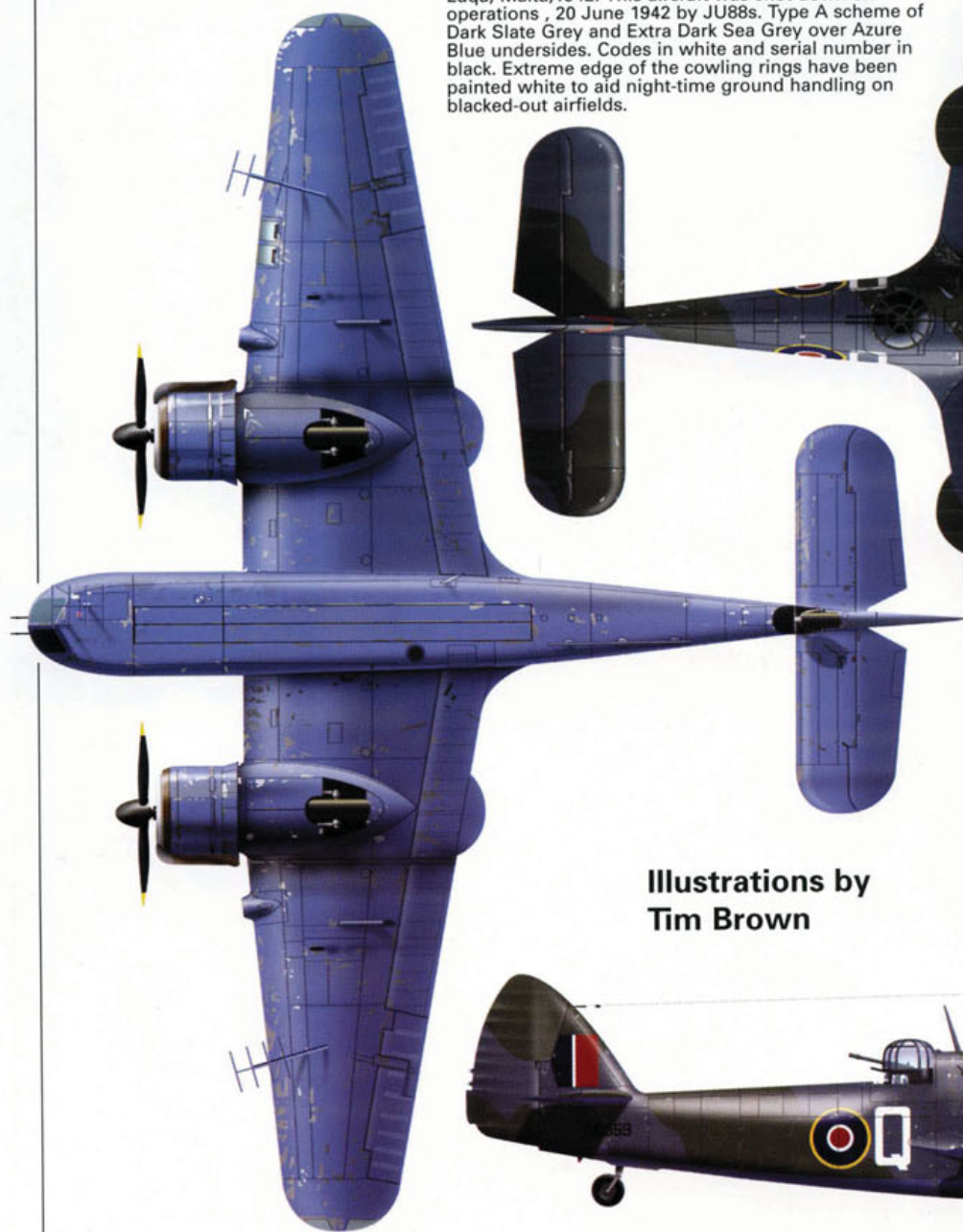
Bristol Beaufort Mk.I L9878 MW:R of No. 217 Squadron. It spent all of its service career with this squadron and was finally struck off charge in May 1943 (RAF Museum)



Bristol Beaufort Mk. IA



Bristol Beaufort Mk. IA DD959:Q of No. 217 Squadron, Luqa, Malta, 1942. This aircraft was shot down on operations, 20 June 1942 by JU88s. Type A scheme of Dark Slate Grey and Extra Dark Sea Grey over Azure Blue undersides. Codes in white and serial number in black. Extreme edge of the cowling rings have been painted white to aid night-time ground handling on blacked-out airfields.



Illustrations by
Tim Brown





BRISTOL BEAUFORT

By Tony Buttler

ON 25 June 1936 the first Bristol Type 142M Blenheim medium bomber made its maiden flight and, in the process, also marked the appearance of the first of a series of twin-engined bomber and fighter designs to be produced by the Bristol firm during a period which lasted beyond the end of World War 2 – following the Blenheim came the Beaufort, Beaufighter, Buckingham and Brigand. The Blenheim gave great service during the early years of the conflict, the Beaufighter proved a major success and the only failure was the Buckingham medium bomber. The Beaufort also gave sterling service but often seems to get overlooked by historians.

COMPLEX BEGINNINGS

The Bristol Beaufort, together with its rival the Blackburn Botha, was the result of three different specifications. The first, M.15/35, requested a shore-based torpedo bomber while G.24/35 called for a general purpose land-based reconnaissance aircraft and both

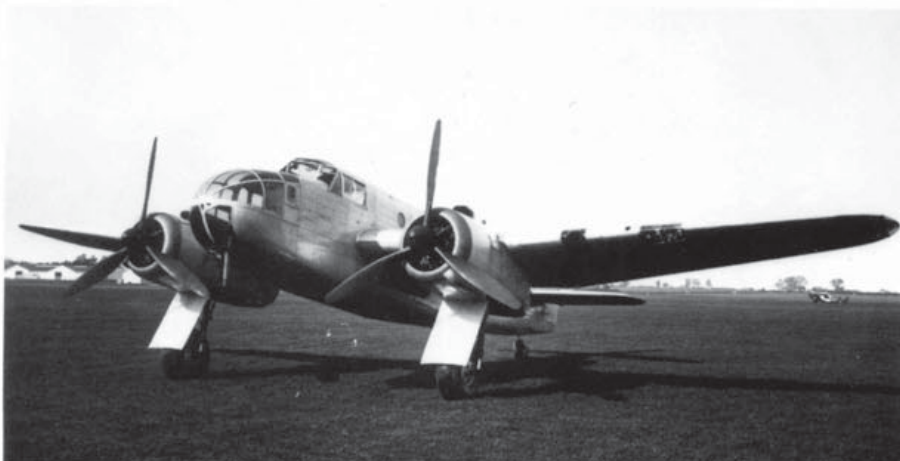
This view of Beaufort prototype L4441 shows the original large undercarriage doors. (Peter Green)

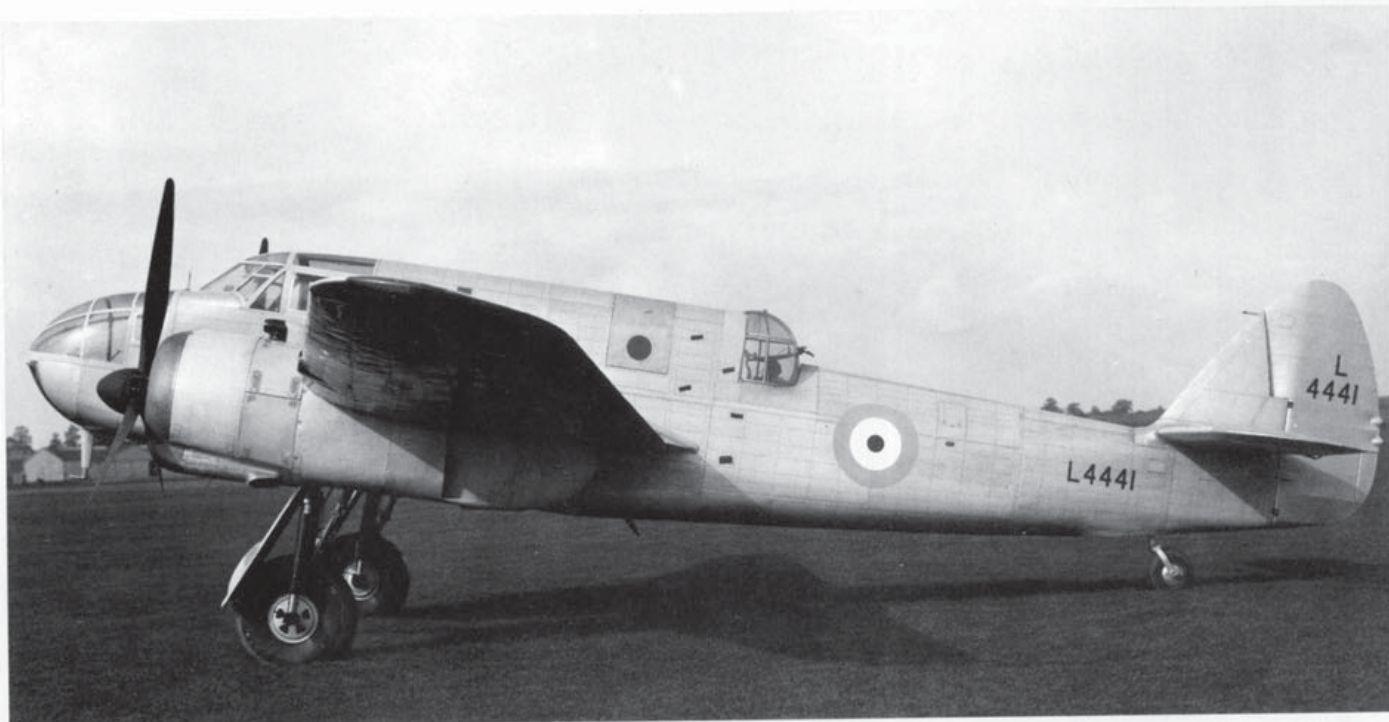
were approved for issue to tender by the Ministry's Director of Technical Development in September 1935. Designs to M.15/35 were submitted by Avro, Blackburn, Boulton Paul, Bristol (the Type 150), Handley Page and Vickers and, after official assessment, Blackburn's proposal was favoured. Designs to G.24/35 were forthcoming from Avro, Blackburn, Boulton Paul, Bristol (an un-numbered project), Gloster and Westland.

In due course these documents were combined into a new specification 10/36 because the Air Ministry felt that the best

Beaufort OA:F of No. 22 Squadron over the English Channel. (Peter Green)

solution was to produce a single basic design that could be converted during production to fit either of the two different roles. In fact from the start Bristol's Leslie Frise, one of the company's design team, had visualized producing a single aircraft that would combine the functions of both general reconnaissance and torpedo bombing and he communicated these ideas to the Air Ministry. Both Bristol projects tendered to date were Blenheim developments and were intended to utilise some of



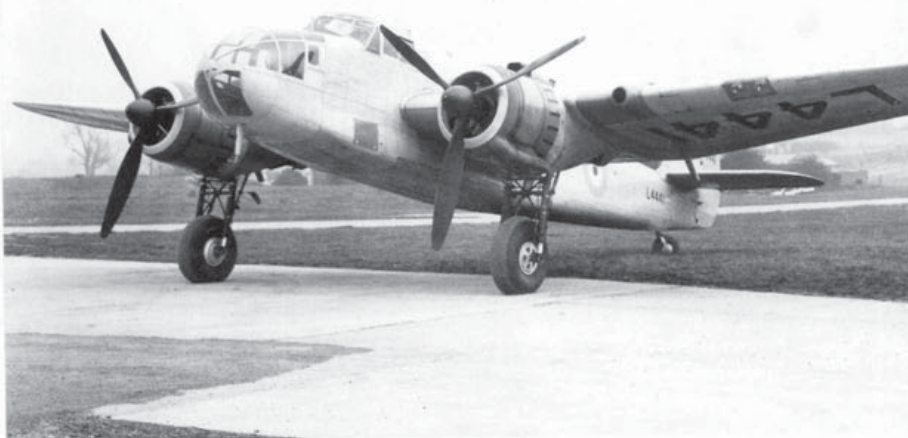


that aircraft's components; in fact the only major change was the use of aluminium alloy extrusion instead of the Blenheim's steel spar flanges.

In December 1935 the Air Staff discussed

the prospects of such a union and concluded that it would be possible for both roles to be combined within one class of aircraft. On 26 January 1936 the Chief of the Air Staff (CAS) agreed that Avro,

The Beaufort prototype was L4441, seen here just before its first flight. Note the rounded nose panels and the clean trailing edge, plus the close-fitting cowlings and cooling-air ejector slots which were factors behind the aircraft's engine cooling problems. (Peter Green)



Above: The undercarriage doors were soon removed from L4441. Note the additional cooling gills on the nacelles and the underwing serials. (Peter Green) Below: L4441 rear angle taken on 18 May 1939. The bomb aiming panels in the nose of the prototype were rounded. These were changed to flat panels in production aircraft. No armament was fitted at this stage. Called the Bristol 152 at this stage it made its first flight from Filton on 5 October 1938 flown by Cyril Unwins. (Peter Green)



Blackburn, Boulton Paul and Bristol, who had all submitted good designs, should be asked to submit new projects that merged the requirements together. During January and February the new layouts were individually discussed with their respective design teams and in March the CAS decided to give approval for placing production orders 'off the drawing board' with both Blackburn and Bristol.

Specification 10/36 was approved in June and requested a speed, when carrying a torpedo, of 220mph (354km/h) at 10,000ft (3,048m). For a normal full reconnaissance load with 500lb (227kg) of bombs aboard the maximum speed had to be 200mph (322km/h) at 5,000ft (1,524m). Range with a normal torpedo load, or with a single 2,000lb (907kg) armour-piercing bomb, had to be 500 miles (805km) at 5,000ft or 750 miles (1,207km) with overload fuel, and with a normal 1,000lb (454kg) bomb load 1,000 miles (1,609km) at 5,000ft and 1,250 miles (2,011km) at overload. A high degree of manoeuvrability was required but the aircraft had to be steady in a high speed dive. The aircraft's armament was to comprise one forward-firing gun controlled by the pilot plus a rearward-facing twin-gun turret and an offensive load of one 1,900lb (862kg) torpedo or one 2,000lb (907kg), two 500lb (227kg) semi-armour-piercing or four 250lb (113kg) anti-submarine bombs. The crew should be made up of two pilots (one of whom would also carry out navigation and bomb-aiming), one wireless operator and one gunner.

Bristol's new design, completed on 21 February 1936, was called the Type 152 and showed many changes from the firm's earlier proposals. The body length ahead of the wings was increased but the fixed

Bristol Beaufort camouflage and markings

Drawings by Tim Brown

BRISTOL BEAUFORT COLOUR KEY

Night	Black	White	Yellow	Roundel Blue	Roundel Red	Natural Metal	Aluminium	Extra Dark Sea Grey	Medium Sea Grey	Dark Green	Dark Earth	Middle Stone
Dark Slate Grey	Light Mediterranean Blue	Dark Mediterranean Blue	Azure Blue	Sky	Foliage Green	Black Green	Earth Brown	Sky Blue	Bronze	Red Primer		

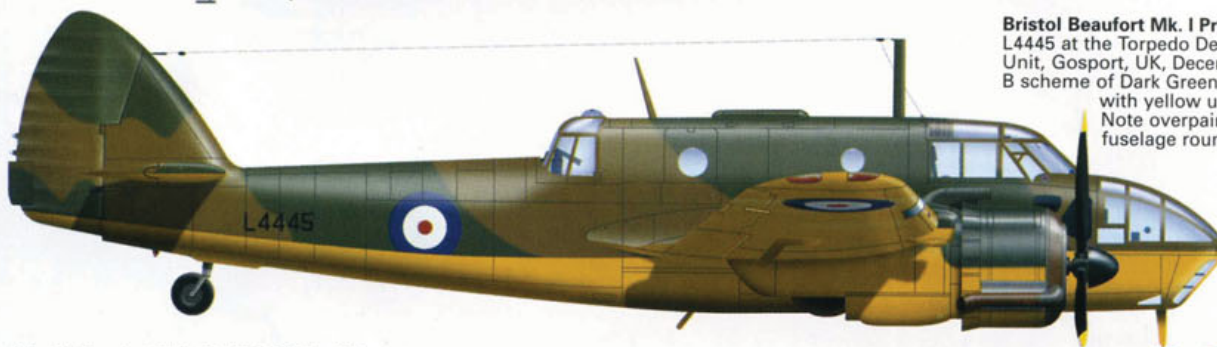
Bristol Type 152 Beaufort Prototype

L4441 at the Bristol Aircraft factory, Filton, Bristol, England, October 1938. Overall Aluminium dope finish. Note early-style cowlings and the rounded nose. Pre-war style roundel on fuselage.



Bristol Beaufort Mk. I Prototype

L4445 at the Torpedo Development Unit, Gosport, UK, December 1939. B scheme of Dark Green and Earth with yellow undersides. Note overpainting of fuselage roundel.



Bristol Beaufort Mk. I L4449:OA-H of No. 22 Squadron, Thorney Island, UK, January 1940. B scheme of Dark Green and Earth with Sky undersides. Type A roundels on fuselage and under wings. Type B on upper wings. Note open beam gun hatch.



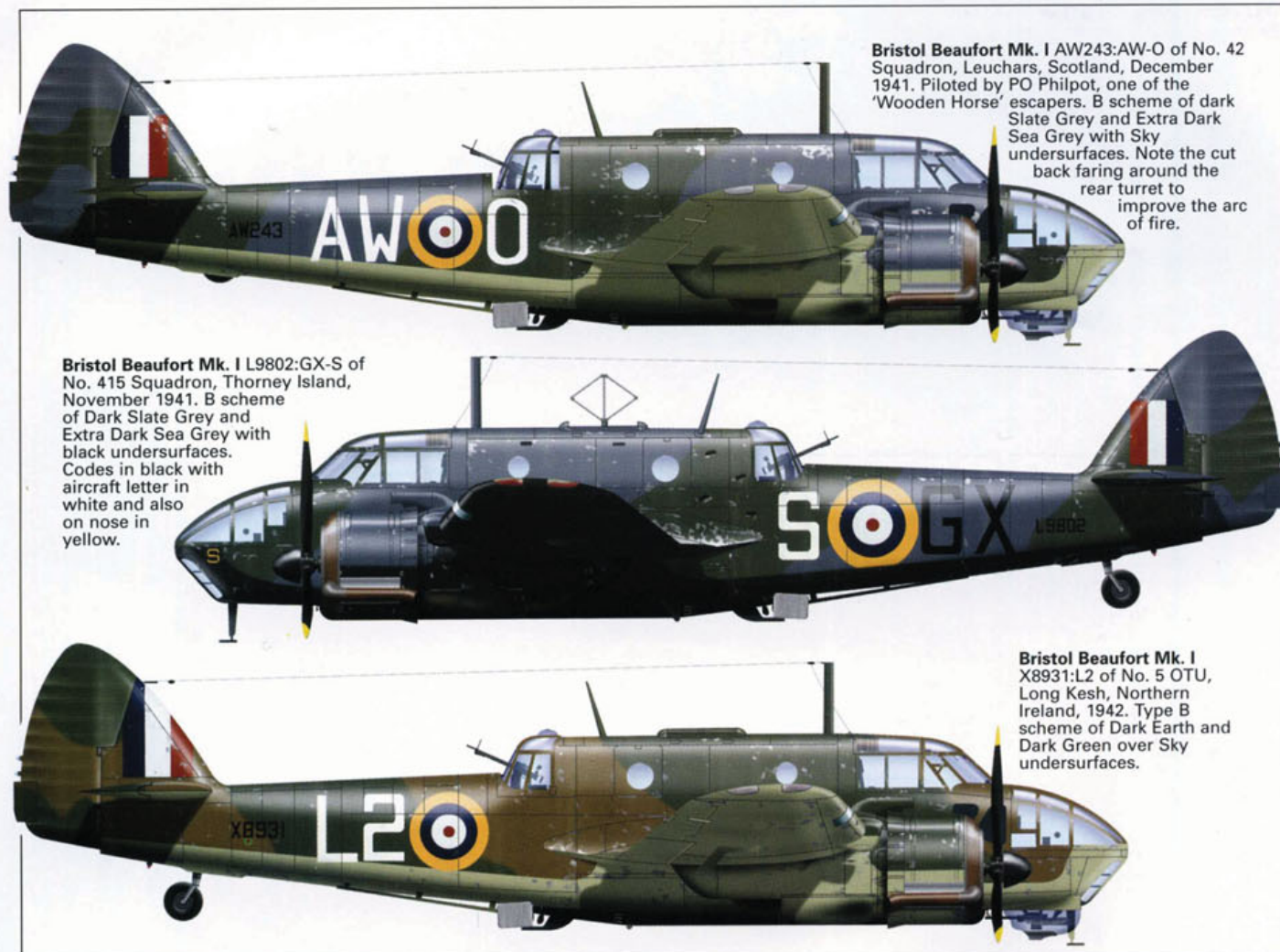
Bristol Beaufort Mk. I N1016:OA-X of No. 22 Squadron, St Eval, UK. Flown by FO Kenneth Campbell during attack on Gneisenau, Brest, 6 April 1941. B scheme of Dark Green and Earth with Sky undersides. Type A1 roundels on fuselage.



Bristol Beaufort Mk. I W6498:WA-K of No. 42 Squadron, Leuchars, Scotland, 1941. B scheme of Dark Earth and Dark Green with roughly sprayed black undersides. Codes in white.



Aircraft letter repeated as name on nose



Bristol Beaufort Mk. I AW243:AW-O of No. 42 Squadron, Leuchars, Scotland, December 1941. Piloted by PO Philpot, one of the 'Wooden Horse' escapers. B scheme of dark Slate Grey and Extra Dark Sea Grey with Sky undersurfaces. Note the cut back faring around the rear turret to improve the arc of fire.

Bristol Beaufort Mk. I L9802:GX-S of No. 415 Squadron, Thorney Island, November 1941. B scheme of Dark Slate Grey and Extra Dark Sea Grey with black undersurfaces. Codes in black with aircraft letter in white and also on nose in yellow.

Bristol Beaufort Mk. I X8931:L2 of No. 5 OTU, Long Kesh, Northern Ireland, 1942. Type B scheme of Dark Earth and Dark Green over Sky undersurfaces.

forward-firing gun was retained. The general reconnaissance (GR) version could carry the required bomb loads and the only change for the torpedo role concerned modifications to the body floor to accept the torpedo, the weapon being slung beneath with half of its diameter protruding, which allowed slightly more headroom in the navigating and wireless cabin of the GR version. This necessary modification could be made at a late stage of the airframe's construction to suit either task while possible alternative powerplants could be the Bristol Perseus or Aquila radial, which gave respective estimated cruise speeds of 250mph (402km/h) and 224mph (360km/h). The relatively roomy main cabin proved useful when, after operational experience, additional defensive guns had to be added in the beam positions.

Bristol and Blackburn were the only companies to build aeroplanes to 10/36. Although originally intended to meet the same document, the Blackburn Botha's structural weight eventually turned out to be 2,000lb (907kg) more than its Bristol rival. In early 1937 the Air Staff changed its requirements and decided that bombing should be the type's primary duty, which meant that the aircraft would now have to operate at 15,000ft (4,572m) instead of 5,000ft (1,524m) but still offer a top speed with a normal offensive load of 220mph (354km/h); in fact torpedo dropping

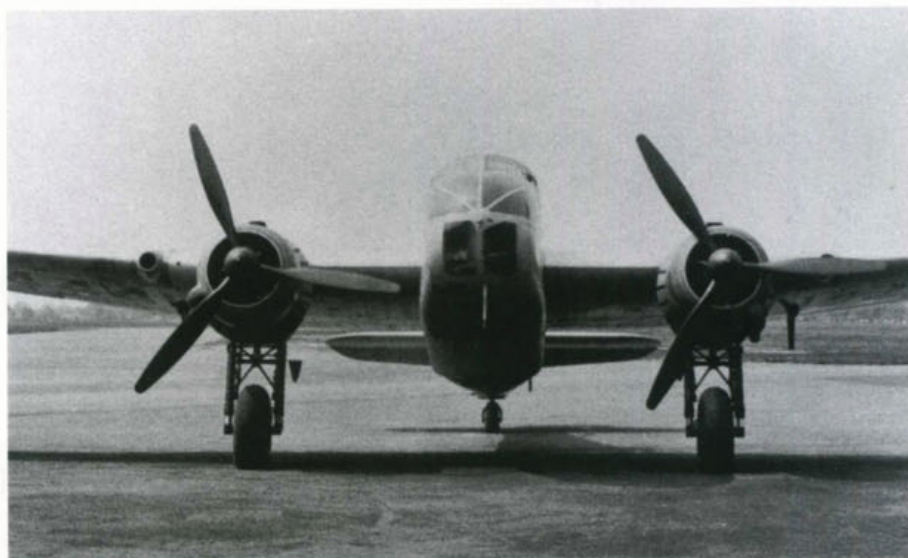
proved to be the main task when the type was in service.

At around this time the engines were changed because Frise felt that the Perseus was incapable of sufficient development to compensate for the expected increases in the 152's weight. In July 1937 permission was given to change to a new Bristol engine, the Taurus, but Blackburn stayed with the Perseus (probably because insufficient Taurus units were available) and the Botha was accordingly and quite severely underpowered. After a short operational career the Botha was relegated to training.

The Type 152 was eventually christened Beaufort (after and with the permission of

the Duke of Beaufort) and an initial production order was placed on 22 August 1936 for 78 machines to be delivered by 31 March 1939; there was no separate prototype order. The manufacture of the first production aircraft was accelerated so that it could serve as a prototype and the airframes following on behind were purposely retarded to allow any and all necessary alterations and modifications to be incorporated into them, the usual procedure in these cases.

However, progress on the first Beaufort, L4441, was slow and fell behind the Botha, the Mock-up Conference for which took place in January 1937. In April 1937 the Beaufort mock-up was only about two-



The second Beaufort, L4442, received full camouflage.

This picture shows how low over the water a Beaufort had to be when releasing its torpedo. The trial was probably being conducted by the Torpedo Development Unit at Calshot on the Solent appears in the background (Peter Green)

thirds ready and an official assessment could not take place until September – during the summer Bristol was visited by the Deputy Director of Technical Development who thought that progress was very slow although the firm made some ‘optimistic promises’.

When complete the Type 152 mock-up showed a four-gun turret but the Ministry's Squadron Leader Oxland told Bristol to take this out and replace it with a single Lewis gun because the expected rate of production for Browning machine guns was unlikely to be sufficient to satisfy all of the aircraft types that could use the weapon.

INTO THE AIR

In the event L4441 was much delayed and was not rolled out at Filton until 27 September 1938, when it posed for some publicity photographs. The aircraft was painted silver and, once serials had been painted on the lower wings, finally became airborne on 15 October piloted by Bristol test pilot Captain Cyril Uwins. Flight testing revealed that turbulence from a break in air-flow around the turret affected the tailplane and the engines suffered severe overheating, a worrying problem which meant that the first three flights lasted for a total of only 30 minutes.

The Beaufort had to be grounded and Blenheim-style cowlings with annular cooling gills were fitted because the original close-fitting version simply did not provide enough cooling air.

This modification certainly improved matters but another problem was the asymmetric lowering of the wheels on the landing approach which created an unacceptable

Two of No.42 Squadron's Beauforts, N1172 and L9834, seen while operating from Leuchars. Note the rear-facing chin gun and a different exhaust to the prototypes. Neither aircraft survived the war. (Peter Green)

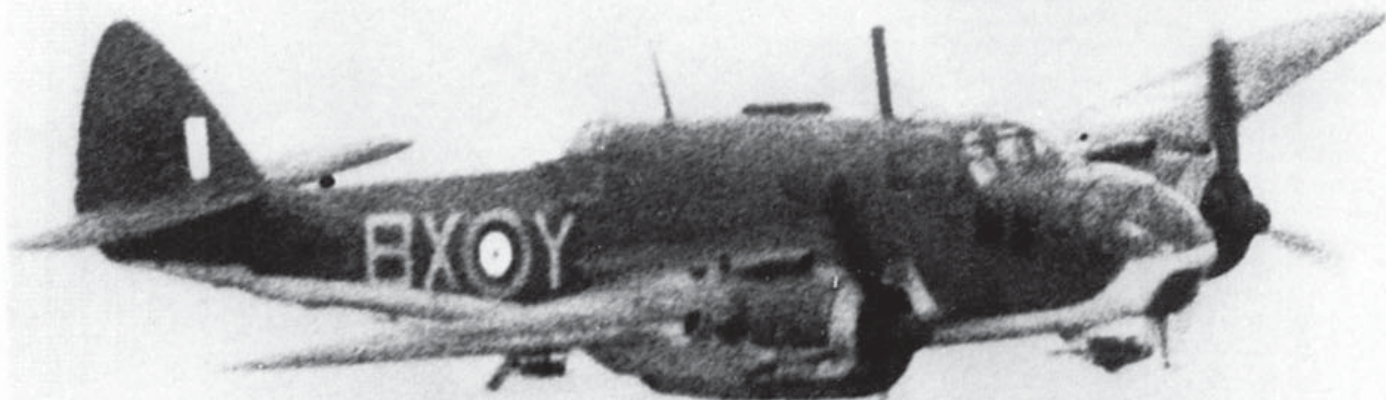


degree of yaw. This was rectified by new side-hinged doors that replaced the original apron-like originals, which were also initially fitted to the second machine L4442. Nevertheless, at 14,000lb (6,350kg) weight the Beaufort recorded a maximum speed of around 308mph (496km/h), although larger leading edge coolers were to reduce this figure by about four mph (6.5km/h) at 15,000ft (4,572m); top speed at sea level was

246mph (396km/h).

Due to these problems and hold ups L4441 did not arrive for its initial handling trials at the Aircraft and Armament Experimental Establishment (A&AEE), then still at Martlesham Heath, until 17 April 1939. However, another factor behind the delays was that Bristol was now preparing the new Beaufighter twin-engined fighter to follow closely behind the Beaufort and





Poor quality image of AW196 BX:Y of No. 86 Squadron taken in August 1941. On 1 April 1942 this aircraft was shot down by flak over the Skaggerak. (Peter Green)



Pilot Officer Lander and his air and ground crew, plus torpedo, were photographed at North Coates while serving with No. 22 Squadron. (Peter Green)

this meant that the manufacturer's design and development effort had to be split.

The A&AEE trials were generally satisfactory, although some problems were experienced with the most important still the excessive cylinder temperatures, so a lot of work had to be done on engine cooling before the Beaufort was cleared in August 1939. L4441 was returned to Filton for cooling trials on 10 May and, in due course, improved inter-cylinder baffles were introduced. Cylinder temperature was felt to be particularly important because the Beaufort was expected to serve in tropical and semi-tropical conditions where adequate cooling was essential.

A further problem raised by A&AEE on 6 March 1940 was the aircraft's bad single-engine flight characteristics which prevent-

ed the type from being cleared for service use. The de Havilland propellers were not fully-feathering and, although the aircraft could just about be flown on one engine at around 120mph (193km/h), this was not achieved on every occasion when tried and, in addition, there was no safe flying speed. Nevertheless, by mid-1940 clearance was given for a maximum take-off weight of 20,000lb (9,072kg) while W6538 onwards (the 501st Beaufort) pushed the figure up to 21,000lb (9,526kg). As a result of these difficulties, except for L4441, no first line production aircraft was delivered before October 1939 and the original order was not supplied in full until March 1940.

Other problems included poor directional trim, which to solve required the addition of an extra 3in (7.6cm) of chord to the rudder trim tab, and tailplane vibration which was surprisingly cured by stiffening the cockpit

Line-up of unidentified Beaufort Mk.IIs, possibly in the Western Desert (RAFM)

windows. The deep forward fuselage really needed more fin area but this was one weakness never dealt with in home-built machines, although Australian Beauforts were so modified. Later air turbulence over the upper wings resulted in semi-circular plates being fitted from mid-1941 onwards to the Beaufort wing trailing edge behind the nacelles, earlier aircraft being retrofitted. The later Twin Wasp versions had fatter nacelles which actually brought an improvement to the airflow over the wings and made these trailing edge extensions no longer necessary.

Beaufort Mk.I L4456, powered by two Taurus II engines, had its performance measured by A&AEE in July 1940. Maximum speed at 2,000ft (610m) was found to be 258.5mph (416km/h), rate of





climb 1,490ft/min (454m/min) and time to this height 1.4 minutes. At 10,000ft (3,048m) the equivalent figures were 270mph (434km/h), 1,060ft/min (323m/min) and 6.2 minutes, and at 15,000ft (4,572m) 263mph (423km/h), 565ft/min (172m/min) and 13.5 minutes. W6503 with two Taurus VI units was test flown at 21,000lb (9,526kg) weight and the report, dated 7 August 1941, noted that in level flight the aircraft was reasonably manoeuvrable at overload and no undue difficulty was experienced in flying it at this weight. However, there was a tendency to wallow, particularly during the climb, which was unpleasant. Rate of climb at this weight was 700ft/min (244m/min) at sea level and 800ft/min (278m/min) at 5,000ft (1,524m), and service ceiling 13,300ft (4,628m).

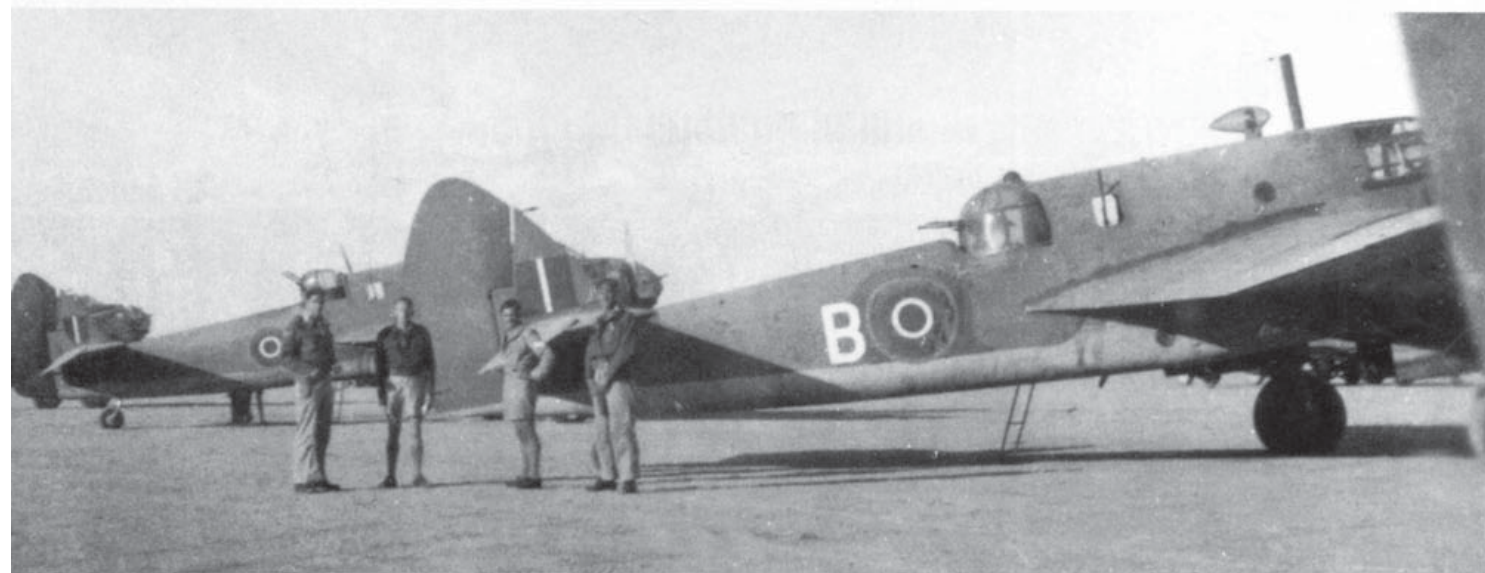
On 16 March 1939 a decision was taken to let the first five production aircraft serve as prototypes (these were actually hand-built and lacked the fully interchangeable components introduced on L4446), two more would undertake trials and 50 would be transferred to the Royal Australian Air Force (RAAF); the last 21 were to join No. 100 Squadron in Singapore.

Before the outbreak of war it was expected that most Beauforts would serve in the Far East as replacements for the Vickers Vildebeest, while the Blackburn Botha would replace both the Vildebeest and the Avro Anson in home squadrons. However, after the war had started it was decided that Beauforts should also equip home squadrons which prompted a strengthening of the aircraft's defensive armament. It was

This picture of L9834 and her crew, AW:V of No. 42 Squadron, was taken during 'Exercise Veloce' in 1941. The aircraft hit a hill during a night take-off on 30 August 1941. (A.S. Thomas via Peter Green)

originally intended that the Botha should serve as the RAF's principal torpedo bomber and when orders for this type passed 1,200, the figure requested for the Beaufort had only reached 426, but it was the revelation of the Botha's lack of power (which limited its take-off weight) and other shortcomings that forced the Air Ministry to keep all home-built Beaufort production at home. As a result, a further 90 Beauforts were ordered from Australian manufacturers to fill the needs of the Far East squadrons (these are described later).

The second 'prototype', L4442, was paint-





Bristol Beaufort Mk. I N1006:RO-B of No. 32 Operational Training Unit, Patricia Bay, Canada, January 1942. Type A scheme of Extra Dark Sea Grey and Dark Slate Grey over Sky undersurfaces. Note the handpainted codes in Medium Grey.

Bristol Beaufort Mk. I N1113:D1 of No. 3 Coastal Operational Training Unit, Chivenor, UK, June 1941. Type B Scheme of Extra Dark Sea Grey and Dark Slate Grey over Sky undersurfaces.



Bristol Beaufort Mk. I AW234:TU-Z of the Torpedo Training Unit, Castle Kennedy, Scotland, June 1942. Fake codes for the film 'Coastal Command'. Type A scheme of Extra Dark Sea Grey and Dark Slate Grey over Sky undersurfaces.

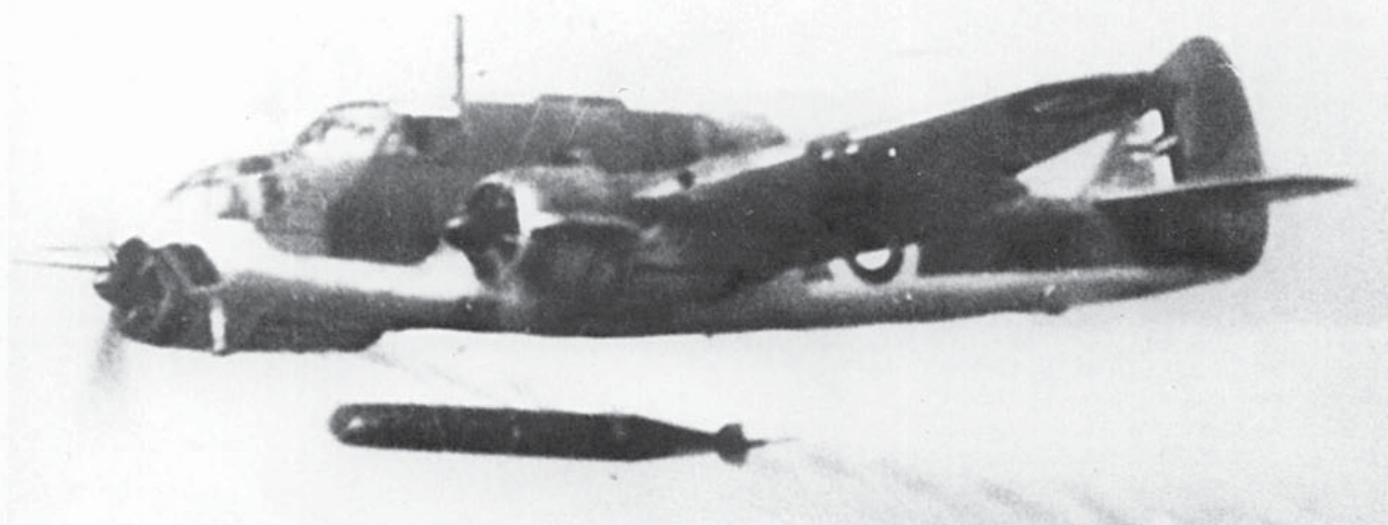
Bristol Beaufort Mk. IA LR906:42 of No. 2 Torpedo Training Unit, Castle Kennedy, Scotland, September 1943. Overall white finish with Extra Dark Sea Grey on upper surfaces. Codes in Dark Slate Grey.



Bristol Beaufort Mk. IIA AW347:BX-S of No. 86 Squadron, Skitten, Scotland, Spring 1942. Type A scheme of Extra Dark Sea Grey and Dark Slate Grey over black undersurfaces.



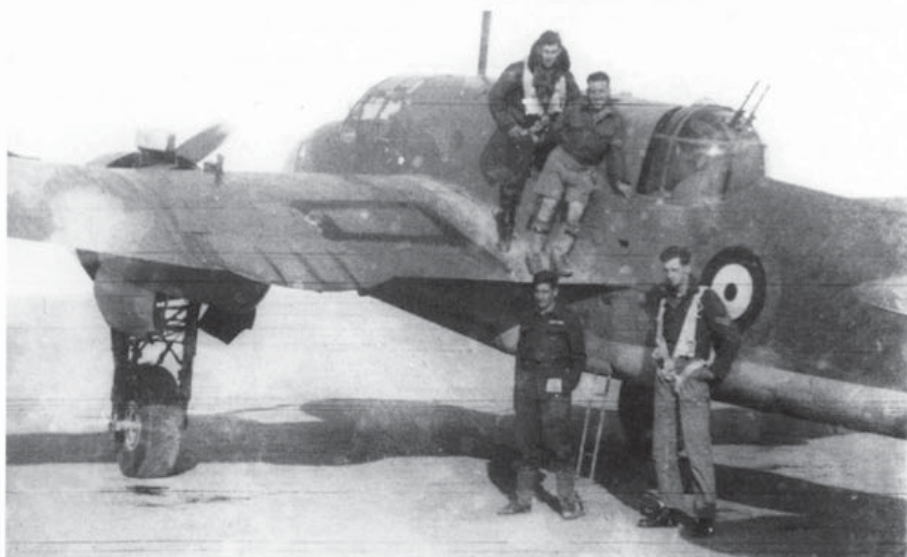
Bristol Beaufort Mk. IIA AW350:AW-P of No. 42 Squadron, Leuchars, Scotland, May 1942. Type A scheme of Extra Dark Sea Grey and Dark Slate Grey over black undersurfaces.



A No.22 Squadron Beaufort releases its torpedo. (Peter Green)

ed in standard pre-war bomber camouflage and had gilled cowlings fitted when it made its maiden flight on 3 July 1939, and on 27 October it was sent to A&AEE, who had by now moved to Boscombe Down, for armament and equipment trials. L4443 was used by Bristol for engine cooling trials while L4444 had dual controls and became the first Beaufort to join the RAF when it arrived at the Central Flying School. The first true production Beaufort was delivered in October 1939 and during the following month several more joined No. 22 Squadron. By year's end a total of 29 machines had been supplied from Filton and in May 1940 the production rate reached 30 per month.

However, trials with L4445 at the Torpedo Development Unit (TDU) showed that releasing torpedoes from high speed aircraft



Above: A No. 39 Squadron aircraft and aircrew at Shallufa in late 1941. (G.R. Pitchfork via Peter Green) Below: Unidentified No.39 Squadron Beaufort, possibly at LG86 in January 1942. (Peter Green)



presented problems in controlling the weapon in the air before it hit the water. To cure this a much larger 42in (106.7cm) span detachable air tail had to be introduced which also had vertical end plates and this made the weapon too large to put inside a Beaufort bomb bay in the intended nose-down attitude; hence, from this point, the Beaufort's 'tin fish' always had to be carried slightly nose up with the tail nestled against the lower fuselage. In truth the pace of design of British airborne torpedoes had lagged behind that of the aircraft designed to carry them and the weapons then available to the services were not suited for release at the high speeds offered by types such as the Beaufort. A Beaufort was intended to make a diving approach and release its torpedo at a speed in excess of 300mph (483km/h) but, at this time, British torpedoes could only cope with hitting the water at speeds no greater than about 160mph (257km/h) which was suitable for several biplane types but not the latest aircraft. Consequently, at the moment it was facing enemy fire the Beaufort had to cut its speed to ensure that the weapon was safely released.

CONSTRUCTION

The Beaufort was a hefty-looking but compact mid-wing monoplane built almost entirely of all-metal stressed-skin construction. A key element of its overall design was split-assembly construction to allow full interchangeability between components and to make sub-contract manufacture a relatively easy process; in addition this would simplify the repair of damaged airframes. Monocoque construction was used with Z-section and channel-section formers and extruded Hiduminium stringers, the wings and body being covered in Alclad skins of varying thickness. The oval-section fuselage was built in three sections, front, middle and rear, with the forward joint at the

A No.39 Squadron Beaufort flying over the Nile Delta in 1942. (Peter Green)

mainplane front spar. The middle of the fuselage employed three longerons and had formers with extra strengthening to take the weight of the turret and the wing centre section, while around the area of the bomb bay the centre-fuselage was bell-shaped.

The bomb bay was 8ft 4in (2.54m) long and had wooden doors and the main entrance hatch, just forward of the amidships turret, was also built of wood - there were emergency exits in both the floor and roof near the nose. L4441 and L4442 were given curved lower panels on the extreme

nose to improve the aircraft's streamlining and aerodynamics but, in fact, these were found to be weak and gave a distorted view to the bomb aimer, so from L4443 onwards they were replaced by flat windows.

The cantilever wing was made in three sections and the nearly rectangular centre part passed through the rear fuselage and had the engine nacelles attached to its outer ends with the bomb bay underneath, the wing forming the roof of the bay. Two-spars were used throughout with Alclad webs and extruded Hiduminium booms and supported



Above: A Beaufort of No. 39 Squadron comes into land at Shallufa in late 1941. (G.R. Pitchfork via Peter Green) Below: Unidentified No.39 Squadron Beaufort, at Mairut, Alexandria, Egypt in January 1942. (Peter Green)





Above: Close up of Beaufort Mk.I L9965 as AW:M of No. 42 Squadron. After suffering engine failure this aircraft crashed into the sea some 90 miles (145km) from the Firth of Forth on 23 February 1942. (Peter Green) Below: A Beaufort of No. 39 Squadron comes into land at LG86(?) in around January 1942. (Peter Green)

by inter-spar ribs and spanwise stiffeners. Frise-type ailerons were fitted to the outer wings which were tapered and given six degrees of dihedral. The ailerons were fitted with trimming tabs which were adjusted on the ground for directional and longitudinal trim and split-trailing edge flaps were installed between the ailerons and fuselage. Within the wings there was permanent tankage for 570gal (2,592lit) of fuel, comprising two 194gal (882lit) tanks in the centre-section and a 91gal (414lit) tank in each outer wing and protected by four mm of armour hung on the spars, while a detachable tank holding another 138gal (627lit) could be carried in the bomb bay. The wing took the weight of all of the offensive bomb and torpedo load.

The Taurus nacelles had long-chord cowlings, the exhaust collector forming the leading edge while controllable gills governing the flow of cooling air were fitted around the trailing edge; the cooling air was collected by a ducted opening on the leading edge of the two outer planes. Taurus itself was a 14-cylinder sleeve-valve air-cooled radial engine which, on the Beaufort, had de Havilland three-blade 12ft (3.66m) diameter variable-pitch constant-speed airscrews. The engine nacelles were held onto the wing by square-section steel tubing and at the rear



they also housed the main undercarriage legs, the main wheel doors being opened by the undercarriage itself. The wheels were carried between pairs of oleo-pneumatic shock-absorber legs and each unit retracted rearwards.

A one-piece two-spar cantilever tail was attached to the rear fuselage stern frame and the elevators, like all of the control surfaces,

were fabric covered; the fin also had a cantilever structure and there were controllable trim-tabs on both the elevators and rudder. The tail wheel retracted forwards into an open recess.

The pilot sat on the port side of the cockpit and, at a lower level, there was a walk-way which connected the extreme nose to the cabin rear, in the process passing over the centre wing spars and through a partition curtain; armour plate was provided for the pilots and the gunner. Defensive fire was afforded by a power-operated turret capable of 180 degrees rotation which contained two Browning 0.303in (7.7mm) machine guns. From May 1940, after early operational experience, an additional rear-facing beam position Vickers machine gun was added mounted free on each side of the fuselage just forward of the turret. This arrangement was never completely satisfactory but was introduced as a field modification to all but the earliest production machines, although after two years second line unit aircraft were



Poor quality picture of 'V' of No. 47 Squadron, which should be DE111, an aircraft which later served with the South African Air Force. (Peter Green)

Bristol Beaufort squadrons, units and representative aircraft

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RAF Front Line Operators

Squadron	Code	Mk/Date	Examples
22 Squadron	OA (UK only)	Mk.I: 11.39 to 10.43 Mk.II: 11.41 to 9.42 Mk.IIA: 3.42 to 10.42 Mk.IA: 10.42 to 8.44	L4451 AW282 AW339 DW806
39 Squadron	-	Mk.I: 9.41 to 11.42 Mk.II: 4.42 to 6.43 Mk.IIA: 3.42 to 1.44 Mk.IA: 4.42 to 5.43	L9894 AW294 DD875 DE115
42 Squadron	AW (not Far East)	Mk.I: 4.40 to 2.43 Mk.II: 2.42 to 9.42 Mk.IIA: 3.42 to 9.42 Mk.IA: 7.42 to 4.43	N1163 AW310 DD929 DW871
47 Squadron	-	Mk.I: 9.42 to 6.43 Mk.IA: 8.42 to 6.43	X8934 DW940
48 Squadron	OY	Mk.I: 5.40 to 10.40	L9867
69 Squadron	-	Mk.I: 8.41 to 9.41	L9875
86 Squadron	BX	Mk.I: 5.41 to 2.43 Mk.II: 12.41 to 11.43 Mk.IIA: 2.42 to 12.42 Mk.II: 10.41 to 2.42	L9896 AW248 AW355 T9543
100 Squadron	NK (in Australia only)	Mk.I: 5.40 to 8.42	W6501
217 Squadron	MW (UK only)	Mk.II: 10.41 to 5.42 Mk.IA: 5.42 to 9.44 Mk.IA: 3.44 to 6.44	AW245 DD982 LR956
235 Squadron	LA	Mk.I: 9.41 to 1.42	N1102
415 Squadron(RCAF)	GX	Mk.IA: 11.43 to 12.43	JM435
455 Squadron	-	Mk.I: 8.41 to 4.42	L9962
489 Squadron(RNZAF)	-	Mk.IA: 12.42 to 1.43?	
511 Squadron	-		

RAF Training Units

Unit	Code	Mk/Date	Examples
222 Group Photographic Flight		Mk.IA: 6.44 to 8.44 Mk.IIA: 8.44 to 12.44	JM510 ML435 L9872
Torpedo Training Unit (code 'TU' mid-1942 only)		Mk.I: 6.40 to 11.42 Mk.II: 5.42 only	? L4461 DW918
1 TTU		Mk.I: 1.43 to 12.43 Mk.IA: 5.43 to 3.44	N1179 DX148
2 TTU		Mk.I: 1.43 to 9.43 Mk.IA: 2.43 to 9.43	N1167 DD981
5 (Middle East) Training School (code '5')		Mk.I: 8.42 to 10.43 Mk.IIA: 8.42 to 12.43 Mk.IA: 8.42 to 12.43	DW953 L4473 N1042
1 (Coastal) Operational Training Unit		Mk.I: 4.40 to 11.40 Mk.I: 9.41 to 12.41 + 1.43 to 2.44	AW285 EL127 N1114
2 (C)OTU		Mk.II: 11.43 to 12.43 Mk.IA: 3.43 to 5.44 Mk.I: 11.40 to 8.41	L4496 AW246 AW363
3 (C)OTU		Mk.II: 3.42 to 2.44 Mk.IA: 3.42 to 11.44	EL133 AW237
5 (C)OTU		Mk.I: 7.42 to 8.44 Mk.IIA: 11.42 to 5.43 Mk.IA: 4.43 to 8.44	DD880 JM582 N1107
32 (C)OTU	code 'RD' then 'OP'	Mk.I: 9.41 to 4.43 Mk.I: 1.43 to 8.45 Mk.IA: 7.43 to 2.45	N1077 JM588 ML613
51 (Fighter)OTU		Mk.IIA: 11.44 to 3.45 Mk.I: 1.43 to 3.45 Mk.IA: 9.43 to 6.45	L9869 LR982 N1020
54 (F)OTU	code 'ST'	Mk.I: 8.43 only Mk.IA: 7.43 to 8.43	JM554 W6525
60 (F)OTU		Mk.I: 8.43 to 5.44 Mk.IA: 8.43 to 7.44	LR886 ?
63 (F)OTU	code 'HI'	Mk.I: 1943 only Mk.I: 7.43 to 9.44 Mk.II: 9.43 to 1.44	L9830 AW252 JM577
75 (F)OTU		Mk.IA: 7.43 to 11.44 Mk.IIA: 8.44 to 5.46 Mk.IIA: 11.44 to 7.45	ML583 LS130 ML458
132 (C)OTU	code '9Y'	Mk.IA: 12.45 to 9.46 Mk.I: 5.40 to 10.41 Mk.II: 4.42 to 3.43	L4513 AW244 EK982
12 (Pilot) Advanced Flying Unit		Mk.IA: 5.43 to 7.43 Mk.I: 10.39 to 12.42	L4473 AW304
17 Service Flying Training School		Mk.II: 9.41 to 11.44 Mk.IIA: 4.42 to 11.43	AW343 EK997
Royal Aircraft Establishment		Mk.IA: 10.42 to 7.44	
A&AEE			

Other units to use Beauforts were the Malta Air Sea Rescue Flight, No. 1 Ferry Unit (Mks.I and IIA 3.44 to 11.45), Ferry Training Unit, Nos. 301, 304 and 306 Ferry Training Units, Far East Tactical Development Unit, Coastal Command Development Unit (Mks.I, II and IIA 12.40 to 12.42), Coastal Command Landplane Pilots School, No. 1 Middle East Check and Conversion Unit, No. 3 Refresher Flying Unit, Specialist Low Attack Instructors School, Central Flying School Handling Flight, Test Pilot Training Flight, Empire Central Flying School, Central Gunnery School, Command Training Flight, No. 2 Flying Instructors School, No. 12 (Operational) Flying Instructors School, Coastal Command Flying Instructors School, Coastal Command Instructors School, Special Duties Flight, Telecommunications Flying Unit (Mks.I and II 10.41 to 10.42), Torpedo Development Unit (Mks.I, II, IIA and IA 12.39 to 9.43), Aircraft Torpedo Development Unit (Mks.I and IA 9.43 to 11.44), Armstrong Siddeley, Rolls-Royce, Rotol and several Station Flights.

still waiting for their guns. In mid-1941 the turret rotation on some aircraft was increased to 200deg. by removing the turret fairing shroud while, in May of that year, an Air Staff decision was passed to fit a free-moving Vickers K gun in the nose to deal with flak. Aircraft belonging to No. 22 Squadron were the only examples to receive this latter gun and some months passed before it was in service.

During the Beaufort's earliest days the turret actually housed a single drum-fed 0.303in Lewis machine gun, complimented with a single fixed Browning mounted in the port wing. In the Far East the Beaufort was not expected to oppose any high performance aircraft and so, initially, heavy defensive armament was not thought to be necessary. However, a second Lewis was added to the turret before being replaced by the two Brownings and then, from Beaufort W6538 onwards, another Browning was mounted in the starboard wing. Later the two forward-firing wing guns were complimented by two free Vickers K guns in the extreme upper nose above the bomb-aiming position – the latter were intended to replace the earlier arrangement but in due course most Beauforts had both. The navigator was to use the new Vickers guns to suppress enemy flak during a torpedo attack, the likelihood being that the wing guns could not always be brought to bear on a target. Thus from W5638 onwards, standard Beaufort armament was eight guns.

In an effort to ward off ventral attacks from Messerschmitt Bf 109 fighters, some Mk.I's were fitted with a single rearward-facing Browning housed in a mounting placed directly beneath the nose and remotely aimed by the navigator using a mirror; however, because of its coiled ammunition feed, the gun itself was prone to jamming. It also had limited transverse and was virtually useless on low level operations, so by early 1942 it had been dropped from most aircraft.

A special carrier was installed in the bomb bay to take the torpedo and, besides the alternative bomb bay loads, there was a rack under each outer wing to take another 250lb (113kg) anti-submarine bomb, giving six in all. It was thought that four compact 500lb (227kg) bombs could be loaded into the bay plus another under each wing, making 3,000lb (1,361kg) in total, but Coastal Command would not accept the reduction in range that such a load would impose and, consequently, the maximum allowed on operations was 2,200lb (998kg). Later the hot conditions experienced in the Middle East usually reduced the maximum load to 1,700lb (771kg), comprising a single mine or torpedo. Other stores to be carried by the Beaufort included the 1,650lb (748kg) 'cucumber' magnetic mine delivered by parachute, plus flares and markers. Finally, from around the end of 1941 Beauforts began to receive air-to-surface vessel (ASV) radar.

HOME SERVICE

From the start of World War 2 RAF Coastal Command was very active in the anti-ship

Continued on page14



Beaufort Mk.I L9875 of No. 39 Squadron seen undergoing major servicing at Wadi Natrum in September 1941. (Peter Green)

and anti-submarine roles, for which it had available Avro Ansons and Lockheed Hudsons. However, when the Beaufort GR.Mk.I joined the RAF, in the form of L4447 arriving at No. 22 Squadron at Thorney Island in December 1939, Coastal Command got its hands on what was described as 'the world's fastest torpedo bomber'. At the start the type still suffered from the technical problems described earlier and so was employed delivering mines at low-level, a role it sustained until the middle of 1943, but it was to become the Command's standard torpedo bomber. In fact, until Vickers Wellington bombers began to use a 4,000lb (1,814kg) bomb in April 1941, the Beaufort could handle every British offensive weapon then available, something no succeeding aircraft can boast.

That said, due to a shortage of torpedoes the first Beaufort sorties with these weapons, by No. 22 Squadron operating from North Coates, were not made until 11 September 1940; indeed, for a period following the collapse of France, there was an acute shortage of aircraft to perform all of the tasks that Coastal Command was required to do. Experience showed later that the air-dropped mine actually inflicted a

greater degree of damage to enemy shipping than did direct attacks, at rather less cost, but the Beaufort could only carry one of these weapons in its bomb bay. These were usually dropped from a height of about 800ft (244m) into the entrances of enemy harbours where they would be activated by the steel hull of a ship passing close by.

The next unit to convert to the Beaufort was No. 42 Squadron in April 1940, to be followed by No. 217 in May. During this period Command losses, including Beauforts, were heavy but some success was achieved. In addition, besides their 'coastal' anti-ship duties, RAF Beauforts were also used to attack the German mainland, for example the oil storage tanks at Hamburg on 18 May 1940, and ports and harbours on the French west coast which involved the use of a standard load of two 500lb (227kg) and four 250lb (113kg) bombs or, occasionally, incendiaries. Due to problems with the Taurus, during much of the Battle of Britain period the Beaufort was grounded and this resulted in over 250 aircraft being re-engined at Filton with upgraded engines (and self-sealing fuel tanks). However, No. 22 Squadron was up and running again by 31 August and the other units

by late September. The first confirmed sinking by a Beaufort, from a mine laid off Wangerooze, was the 400 ton ferry *Stadt Rustringen* dispatched on 27 June 1940.

On 17 September No. 22 sent six Beauforts to attack Cherbourg harbour at night and one of these, piloted by Flt Sgt Norman Hearn-Phillips, succeeded in torpedoing and sinking the 1,626 ton merchant ship *Johann Blumenthal*; after receiving severe damage from flak, Hearn-Phillips managed to nurse his aircraft home to belly land at Thorney Island.

By the end of the year two more merchant vessels had been sunk by torpedo attack and two more by Beaufort mines, several others were damaged and the Beaufort also started to use the 'Blockbuster' high-capacity bomb, in effect a modified sea mine with the magnetic firing mechanism removed. During daylight patrols and sorties Beauforts would search for and attack targets in the North Sea but aircraft losses increased. During 1941 coastal strike operations accounted for 29 merchant vessels sunk plus many others damaged, a good many of them small coastal ships attacked with bombs, but RAF statistics up to November 1942 showed that, by some margin, torpedo bomber crews suffered by far the heaviest casualties of all RAF Squadrons and stood only a 17 per cent chance of surviving an operational tour.

One of the biggest jobs was to harass the supply of high-grade iron ore supplied by Sweden to the German armaments industry. This was moved by ship via Narvik to German ports or, after the German occupation, to Rotterdam in Holland, and the transport convoys were escorted by minesweepers and trawlers fitted with a heavy anti-aircraft armament.

After the fall of France the deployment

Two of the Beauforts that served in Canada with No. 32 OTU. (Peter Green)



RAAF Front Line Operators

Squadron	Code	Mk/Date	Examples
1 Squadron	NA	Mk.VIII: 12.43 to 6.45	A9-477
2 Squadron	KO	Mk.VIII: 12.43 to 9.44	A9-560
6 Squadron	FX	Mk.VA: 7.44 to 8.44	A9-163
		Mk.VIII: 8.43 to 1.46	A9-391
7 Squadron	KT	Mk.VII: 9.42 to 10.43	A9-91
		Mk.VA: 12.42 to 2.43	A9-161
		Mk.VIII: 2.43 to 12.45	A9-196
8 Squadron	UV	Mk.VIII: 3.43 to 2.46	A9-234
13 Squadron	SF	Mk.VIII: 8.43 to 5.44	A9-380
14 Squadron	PN	Mk.VII: 12.42 to 2.43	A9-121
		Mk.VA: 12.42 to 9.43	A9-159
		Mk.VIII: 2.43 to 11.45	A9-221
15 Squadron	DD	Mk.VIII: 1.44 to 11.45	A9-516
21 Squadron	MJ	Mk.VIII: 1.46 to 8.46	A9-418
22 Squadron	DU	Mk.VIII: ? to 10.45	A9-613
30 Squadron	LY	Mk.VI: 8.42 only	A9-79
		Mk.VIII: 1.45 to 9.45	A9-488
31 Squadron	EH	Mk.V: 8.42 to 11.42	A9-10
		Mk.VI: 8.42 to 10.42	?
		Mk.VIII: 12.44 to 10.45	A9-652
32 Squadron	JM	Mk.VIII: 3.43 to 11.45	A9-661
36 Squadron	RE	Mk.V: 3.46 to 6.46	A9-22
		Mk.IX: 3.46 to 5.46	A9-746
92 Squadron	OB	Mk.VIII: 7.45 to 9.45	A9-378
93 Squadron	SK	Mk.VIII: 7.45 to 5.46	A9-401
100 Squadron	QH	Mk.V: 2.42 to 2.43	A9-2
		Mk.VI: 5.42 to 2.44	A9-54
		Mk.VA: 11.42 to 12.42	A9-157
		Mk.VIII: 12.42 to 8.46	A9-184
		Mk.IX: 3.46 to 5.46	A9-717

RAAF Training Units

Unit	Mk/Date	Examples
1 Operational Training Unit	Mk.V: 4.42 to 5.45	A9-33
	Mk.VI: 5.42 to 11.45	A9-88
	Mk.VII: 9.42 to 7.46	A9-108
	Mk.VA: 12.42 to 12.45	A9-154
	Mk.VIII: 2.43 to 2.46	A9-228
5 OTU	Mk.V: 11.42 to 7.44	A9-18
	Mk.VI: 1.43 to 3.44	A9-69
	Mk.VII: 10.42 to 11.45	A9-141
	Mk.VA: 4.44 to 2.46	A9-177
	Mk.VIII: 3.43 to 7.44	A9-450
6 OTU	Mk.V: 7.43 to 4.44	A9-30
	Mk.VI: 7.43 to 4.44	A9-75
	Mk.VII: 7.43 to 7.44	A9-107
	Mk.VIII: 7.43 to 4.44	A9-310

Other Australian units to use Beauforts were No. 111 Air Sea Rescue Flight, Nos. 1, 3, 4, 5, 6, 7, 8, 9, 10 and 11 Communications Units, Nos. 9, 10 and 12 Local Air Supply Units, Central Gunnery School (three Mk 7.42 to 12.45), Base Torpedo Unit (four Mk 5.42 to 11.44), Central Flying School, No. 1 Aircraft Depot (many examples between 3.42 and 12.46), No. 1 AD Special Duties and Performance Flight, No. 1 AD Aircraft Performance Unit, No. 1 AD Aircraft Research and Development Unit, No. 1 AD Ferry Flight, No. 1 AD Trials and Ferrying Squadron, No. 1 AD Test Pilots Training Flight, No. 1 AD Armament School, Air Armament and Gas School, Chemical Research Unit, Commonwealth Scientific and Industrial Research Organisation (1946), Target Towing and Special Duties Flight (1947) and Station Headquarters Richmond.

Other Operators

Squadron	Code	Mk/Date	Examples
Fleet Air Arm			
728 Squadron	M8A	Mk.IA: 10.44 to 9.45	JM756
733 Squadron	C8A/C9A	Mk.IA: 2.44 to 6.45	LR989
762 Squadron	L9/P1/HA3/FD6	Mk.IA: 3.44 to 12.44	LR927
		Mk.IIA: 3.44 to 3.46	ML620
788 Squadron	-	Mk.IA: ? 4.45 to 6.45	?
798 Squadron	L1	Mk.IA: 10.43 to 3.44	LR901
(The Yeovilton Station Flight also used Mk.IA aircraft)			
RCAF			
149 Squadron	-	Mk.I: 11.42 to 8.43	N1027
SAAF			
36 (Coastal) Flight	-	Mk.I: 1.42 to 7.42	756
37 (C) Flight	-	Mk.I: 2.42 to 7.42	763
16 Squadron	-	Mk.I: 9.42 to 11.42 + 6.43 to 11.43	W6488
		Mk.II: 6.43 to 10.43	AW313
		Mk.IIA: 6.43 to 2.44	DD895
		Mk.IA: 6.43 to 1.44	DW883
20 Squadron	-	Mk.I: 7.42 to 9.42	766
22 Squadron	-	Mk.I: 8.42 to 2.43	758
23 Squadron	-	Mk.I: 7.42 to 10.43	760
Turkish Air Force			
105th Torpedo and Recce Group		Mk.IA: 2.44 to 1947	4601
		Mk.IIA: 2.45 to c1950	4621



North West Spain. However, there was less success in 1942 and that year no torpedo hit was recorded by a UK-based Beaufort. At the start of 1942 four RAF strike squadrons (Nos. 22, 42, 86 and 217) were equipped with Beauforts but Nos. 415 (Royal Canadian Air Force) and 489 (Royal New Zealand Air Force) had to lose their Beauforts in the first months of 1942 for other types, losses and a shortage of new aircraft preventing any further expansion to the Beaufort force. During the type's 'home' career UK-based Beaufort units made a large number of movements and detachments between bases.

In the spring of 1942 all of Coastal Command's Beaufort units were moved to the Mediterranean to attack German supply convoys intended to support the German Army fighting in North Africa. No. 22 went to Egypt, but soon afterwards moved on to Ceylon to provide opposition for attacks by Japanese forces. No. 42 went to Cairo but its aircraft were attached to Nos. 47 and 217 Squadrons at Luqa (Malta) where then lost its Beauforts for eight months until it moved to Ceylon in 1943. No. 86 Squadron stayed in the UK, eventually losing its Beauforts for Consolidated Liberators, but before this change it did complete a successful detachment to Malta in July/August 1942 in support of Operation *Pedestal*, a major operation to re-supply Malta by sea.

There were two very notable successes against German capital warships. On 6 April 1941, six aircraft from No. 22 Squadron attacked the German battle-cruiser *Gneisenau* at Brest although only the one, piloted by Flg Off Kenneth Campbell, actually found its objective. Nevertheless Campbell sent a torpedo into his target which left a hole around 40ft (12.2m) in diameter and put the warship out of commission for five months. Sadly Campbell's aircraft was shot down and the crew were killed, but he received the Victoria Cross which was to be the only such award made to a Coastal Command strike squadron aircrew.

from French ports of Germany's large surface raiders became another key problem that had to be closely monitored. Even into 1942 Coastal Command's Beauforts, giving support to Bomber Command, continued to attack land targets such as airfields and ports while 'Rover' patrols by up to three aircraft searching for any suitable targets

was a common item on the Beaufort's flight menu.

Two highlights in 1941 was the cargo liner *Madrid* (8,777 tons) sunk by No. 217 Squadron bombs off Haaksgvinde on 9 December and the naval tanker *Benno* (8,306 tons) dispatched by No. 22 Squadron torpedoes on 24 December off Carino,



Line-up of No. 22 Squadron aircraft; L4461 OA:U nearest. (Alan Hall collection)

On 13 June a Beaufort from No. 42 Squadron, flown by Flt Sgt Ray Loveitt, was the only one of eight aircraft searching for the pocket battleship *Lutzow* to actually find and attack the vessel. Despite the presence of a destroyer escort Loveitt was able to surprise his enemy by flying through low cloud and then making a very low level attack which hit the *Lutzow* and forced her into a dry dock at Kiel, this time for six months. Such was Loveitt's degree of surprise that no shots were fired in return.

MEDITERRANEAN AND CEYLON

Right from the start of the Desert Campaign in North Africa, Allied commanders had asked for the supply of Beauforts to the Mediterranean theatre to help out but the problems with engine cooling made this a risky step and all such requests were rejected. However the need to stem the flow of supplies to the German Afrika Korps across the Mediterranean Sea, against which the Bristol Blenheim and Fairey Swordfish were proving to be relatively ineffective, brought a decision in 1941 to move some Beauforts to Egypt and in September of that year No. 39 Squadron was formed on the type at Wadi Natrun.

In mid-1942, with the new threat to India from Japanese offensives, it was decided to move all home-based Beaufort units to the Mediterranean or India, while back in the UK the venerable Handley Page Hampden filled the gap until Beaufighter torpedo bombers became available. Beaufort flights via Gibraltar to Mediterranean bases, plus the staging trips beyond to India, proved difficult and dangerous with low fuel supplies and enemy fighters a hazard early on and rough landing strips to follow in the Far East.

The Beaufort's arrival in the Mediterranean gave the area's offensive forces a much improved capability to attack enemy shipping. Before the late summer of



Above: Beauforts from No. 22 Squadron run-up their engines before another mission. (RAF Museum via Alan Hall) Below: Beaufort Mk.I N1005, seen on 26 December 1942 as RD:A of No. 32 OTU, later served with the RCAF. (RAF Museum via Peter Green)



Bristol Beaufort Mk. IIT ML673 of 17 SFTS at Montrose, Scotland for scrapping, May 1945. Overall white with Extra Dark Sea Grey on extreme upper surfaces. Serial number repeated under wings in black. Note the weathering and the application of red oxide primer over fuselage repairs.



Bristol Beaufort Mk. IA EK997 of the A&AEE used for tests of an airborne flame thrower for fighter defence, Boscombe Down, England, Spring 1943. Type B scheme of Extra Dark Sea Grey and Dark Slate Grey over Sky lower surfaces. Note the pipe and nozzle extending from the open bomb bay.



Bristol Beaufort Mk. IA EK997 in later configuration as a testbed for a four gun rear turret originally intended for the Mosquito, Boscombe Down, England, September 1943. Type B scheme of Extra Dark Sea Grey and Dark Slate Grey over Sky lower surfaces.



1942 it was not considered safe to deploy Beauforts on Malta but improved supplies to the beleaguered island fortress enabled No. 39 Squadron to move to a permanent home at Luqa in September. The last new Squadron to form on the Beaufort in this theatre was No. 47, which was largely composed of aircrew from No. 42 Squadron with the aircraft coming from No. 39. No. 47's only major success was the tanker *Prosperina* (4,869 tons), hit by DE120 flown by Plt Off R. V. Manning on 26 October 1942 when about 30 miles (48km) from Tobruk, but it was one of the most important ships of all to be hit by a Beaufort because it was 'Rommel's Last Tanker' – a shortage of fuel was to prove a critical problem for the Germans in North Africa.

On 23 January 1942 Beauforts from No. 39 Squadron operating out of Egypt, together with Fairey Albacores from No. 826 Squadron, Fleet Air Arm, combined to sink the liner *Victoria* (13,089 tons) in the Mediterranean. Other successes for No. 39 up to the Italian surrender in September 1943 included the merchant ship *Sanandrea*

(5,077 tons) on 30 August 1942 and tankers *Saturno* (5,022 tons) on 21 January 1943, *Thorsheimer* (9,955 tons) on 21 February and *Sterope* (10,496 tons) on 12 March.

No. 217 Squadron began by torpedoing the Italian Navy's heavy cruiser *Trento* (10,511 tons) in the Ionian Sea on 15 June 1942 (she was hit the DD958 flown by Flg Off A. Aldridge and the blazing wreck was finally torpedoed and sunk by HM Submarine *Umbra*) while other successes were the merchant ships *Reichenfels* (7,744

tons) on 21 June and *Vettor Pisani* (6,339 tons) on 24 July. On detachment, No. 86 Squadron's successes included torpedoing the tankers *Rosolino Pilo* (8,326 tons) on 17 August 1942 and *Poza Rica* (7,751 tons) just four days later.

Most of these sinkings were supply ships for Rommel's Afrika Korps, usually in heavily protected convoys, and Beaufort losses during these and many other operations were very high, which resulted in No. 217 Squadron having no aircraft when it

N1033 after encountering problems at Shallufa. It is marked as 'O' of No. 39 Squadron but on 24 September 1942, while serving with 5 METS, N1033 swung on take-off and hit Vickers Wellington AD593. It is not known if this is the incident. (Peter Green)





The second production Beaufort Mk.II AW245, brand new and without turret guns, poses for the camera on a wet day. This was one of ten 'Interim' Mk.IIs delivered without ASV radar. Note the different nacelles and spinners from the Mk.I. (Peter Green)

was planned to move the unit to Ceylon. The last ship to be sunk by an RAF Beaufort was the Italian Navy supply ship *Aquino* (5,079 tons), torpedoed by DD906 of No. 39 Squadron north west of Marettimo on 24 April 1943.

The first Beaufort to arrive in Ceylon was L9894 which reached its destination on 28 April 1942. However, the type's operations in this region were relatively fruitless because no Japanese ships were to be sighted in the two year plus period served before the Beauforts departed. Nevertheless a great number of patrols were undertaken in support of friendly shipping and it must be emphasised that general reconnaissance and patrols formed a large slice of the Beaufort's operational career. The Beaufort's last operational RAF sortie, by a No. 217 Squadron aircraft, was flown on 15 July 1944 although this unit kept examples on strength until 10 September. The only UK Beauforts still in service at the end of the war were on the strength of Nos. 51 and 54 OTUs, two Flying Instructors' Schools and No. 1 Ferry Unit.

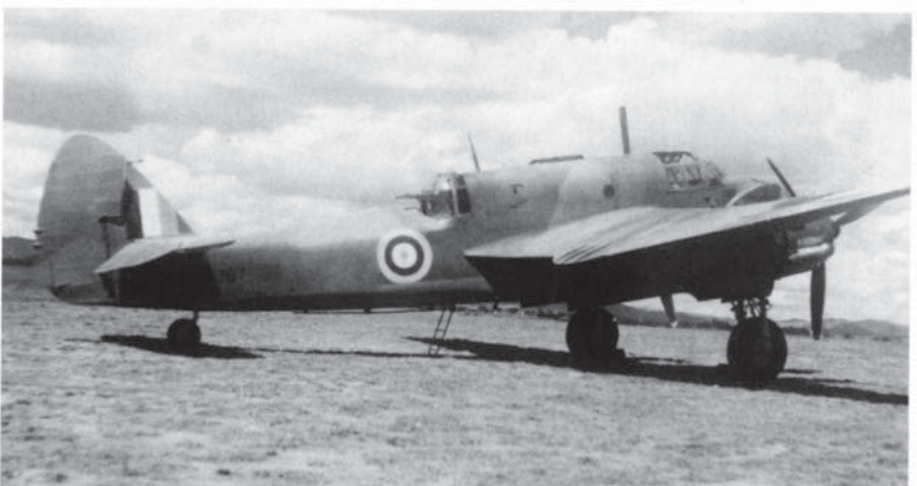
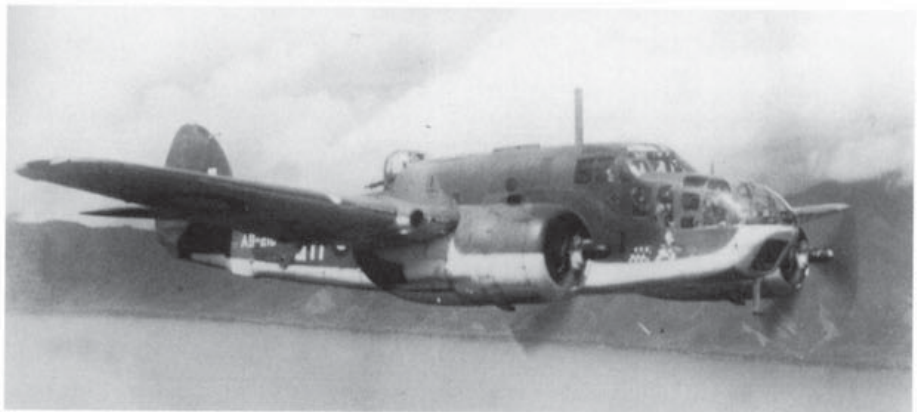
IMPROVED VARIANTS

When it entered production and service the Bristol Taurus engine was still not fully developed, which meant that early Beauforts suffered a considerable degree of unreliability. In fact, rather like the Botha, had there been an alternative torpedo bomber available it is quite possible that Bristol's aircraft might well have been retired from operations at an early stage. The biggest flaw was the Maneton Bolt which regularly failed and caused the connecting rods to slip the crankshaft and wreck the engine. If this happened a forced landing was near certain but the initial loss of control (and fire) that the failure pro-

Right: Aircraft 767 (ex-N1010) of the South African Air Force. (G.R. Pitchfork via Peter Green)



Above: A No. 42 Squadron Beaufort, probably W6532 AW:D, seen en-route to the Norwegian coast on 8 February 1942. (Peter Green) Below: This appears to be A9-210, a Mk.VIII which crashed on landing at Tadjil on 13 July 1944. (G.R. Pitchfork via Peter Green)

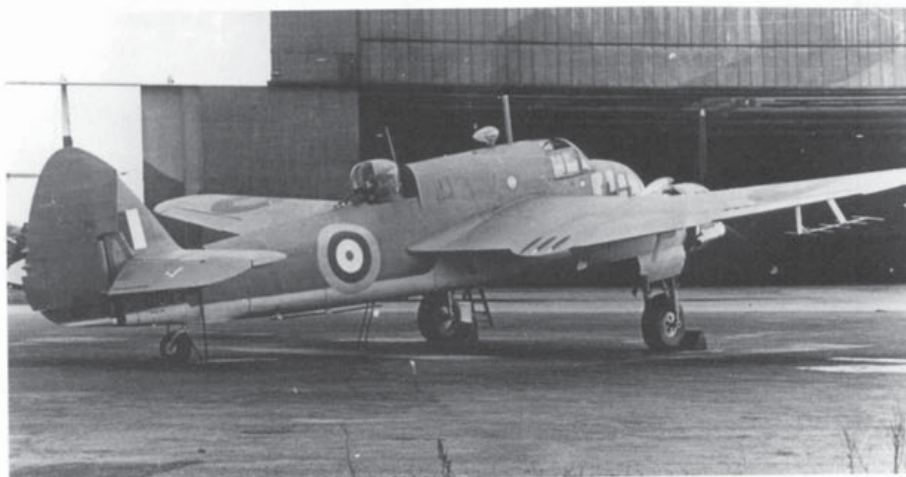




W6498 AW:K of 42 Squadron. This machine was Struck Off Charge on 27 September 1945. (MAP)

duced meant that a Beaufort flying at low level could (and did) often crash. By 1942 the Air Ministry felt that the Beaufort was now barely meeting its operational requirements and declared that it would be obsolete by the end of 1943. Beaufort production was finally discontinued towards the end of 1944.

Thanks to the unreliability of the Taurus, steps were taken to find an alternative power unit and the choice eventually fell on the less powerful but more reliable American Pratt & Whitney Twin Wasp radial. Bristol's design team needed to concentrate on the Hercules engine for heavy bomber production and so the Taurus's problems did not receive enough attention. The main alternatives considered were the Rolls-Royce Merlin XX inline engine and the Twin Wasp. A GR.Mk.I Beaufort, N1110, was built without powerplants specially to serve as an engine test bed and was eventually fitted with 1,200hp (895kW) Twin Wasp S3C4Gs instead of the 1,130hp (843kW) Taurus. In this form it served as the prototype for the Beaufort GR.Mk.II and



made its maiden flight on 9 November 1940 - the Australian Mk.II prototype L4448 was developed in parallel with N1110. A&AEE's flight test report on N1110 at 21,000lb (9,526kg) weight, dated 25 November 1941, showed a top speed with the MS supercharger of 257mph (414km/h) at 10,000ft (3,048m), and with the HS supercharger 259.5mph (418km/h) at 15,000ft (4,572m) and 253mph (407km/h) at 18,000ft (5,486m).

Beaufort Mk.IA DD954 in 1942. The lower fuselage Lorenz aerial and the underwing ASV antenna are well shown. (MAP)

The GR.Mk.III was a proposed variant with two Merlin XXs but this project was never built. Despite having Beaufighter Mk.II outer-wing tanks aboard, estimates predicted a loss of range in the region of 40 miles (64km) while, in addition, liquid-cooled engines were more vulnerable to battle damage. Estimates did suggest that a Merlin-Beaufort would have achieved 316mph (508km/h) at 20,000ft (6,096m) and serial W6518 was flown to Rolls-Royce to be thus modified, although no metal was ever cut for the new installation.

Later there were brief discussions for a 'high-speed' Beaufort fitted with Bristol Hercules radials and capable of 320mph (486km/h) at height.

The first Mk.II production aeroplane was AW244 which made its first flight on 17 August 1941 but the first ten examples

Mk.IA EK982 did not join any RAF unit. Instead it was used by the manufacturers, Bristol Aircraft, and the Royal Aircraft Establishment before being Struck Off Charge on 27 September 1945. This view from 1942 shows numerous wartime modifications and additions - new underwing radar aerials, Blenheim-type B.I turret and Youngman dive brakes. Note also the nose guns. (Peter Green)





Bristol Beaufort Mk. I
N6519:Y of No. 13 Squadron, Wadi Natrum, Egypt, 1941. Type B scheme of Dark Earth and Middle Stone over Sky undersurfaces. Code is Medium Grey.

Bristol Beaufort Mk. IA
L9965:T of an unknown Mediterranean unit circa 1942. Scheme type B of Dark and Light Mediterranean Blues over Azure Blue lower surfaces. Code in Azure Blue.



Bristol Beaufort Mk. IIA
DD896:G of No. 39 Squadron, Luqa, Malta, November 1942. Type A scheme of Extra Dark Sea Grey and Dark Slate Grey over Azure Blue lower surfaces. Code in white.

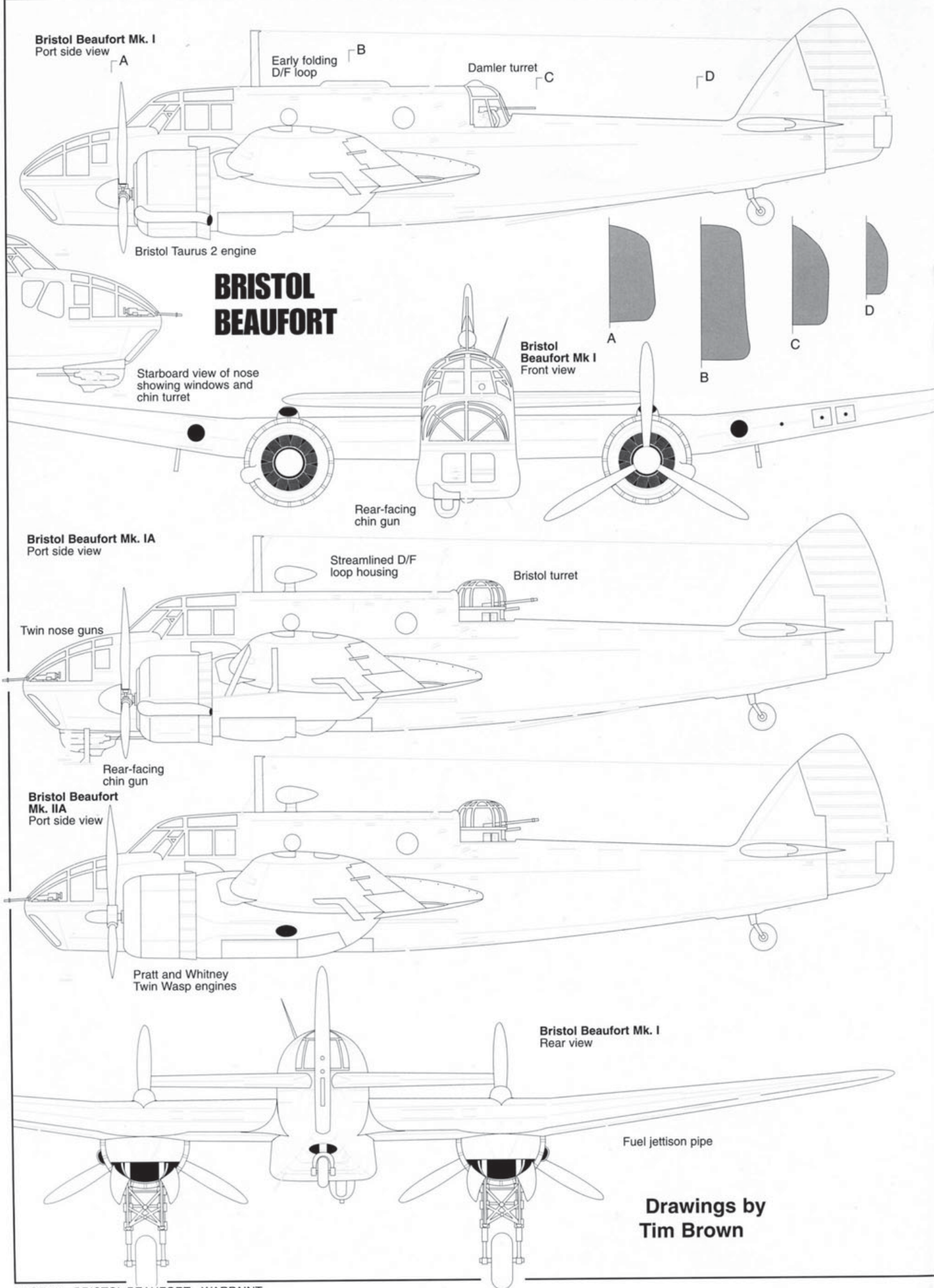


Bristol Beaufort Mk. I N1011:R of No. 16 Squadron, SAAF, Ivato, Madagascar, October 1942. Type B scheme of Dark Earth and Dark Green over Sky lower surfaces. Note Orange on roundels and tail flash.

Bristol Beaufort Mk. IA EK979:35 of the Middle East Check and Conversion Unit, Bilbeis, Egypt, July 1944. Type A scheme of Middle Stone and Dark Earth over Azure Blue lower surfaces. Codes in white. Spinners red.



Bristol Beaufort Mk. IA DE111:V of No. 39 Squadron, Gianacis, Egypt, late 1942. Type A scheme of Middle Stone and Dark Earth over Azure Blue lower surfaces. Codes in Azure Blue. Note the missing turret frame, streamlined Vokes filter and turret fairing as part of trials to increase range.



Bristol Beaufort Mk. IA
Underside plan view



Wing Cross Sections

Trailing edge
plate.
Not present on
Australian-built
aircraft

Bristol Beaufort Mk. IA
Upper surface plan view

Australian style tail unit
with increased fin area

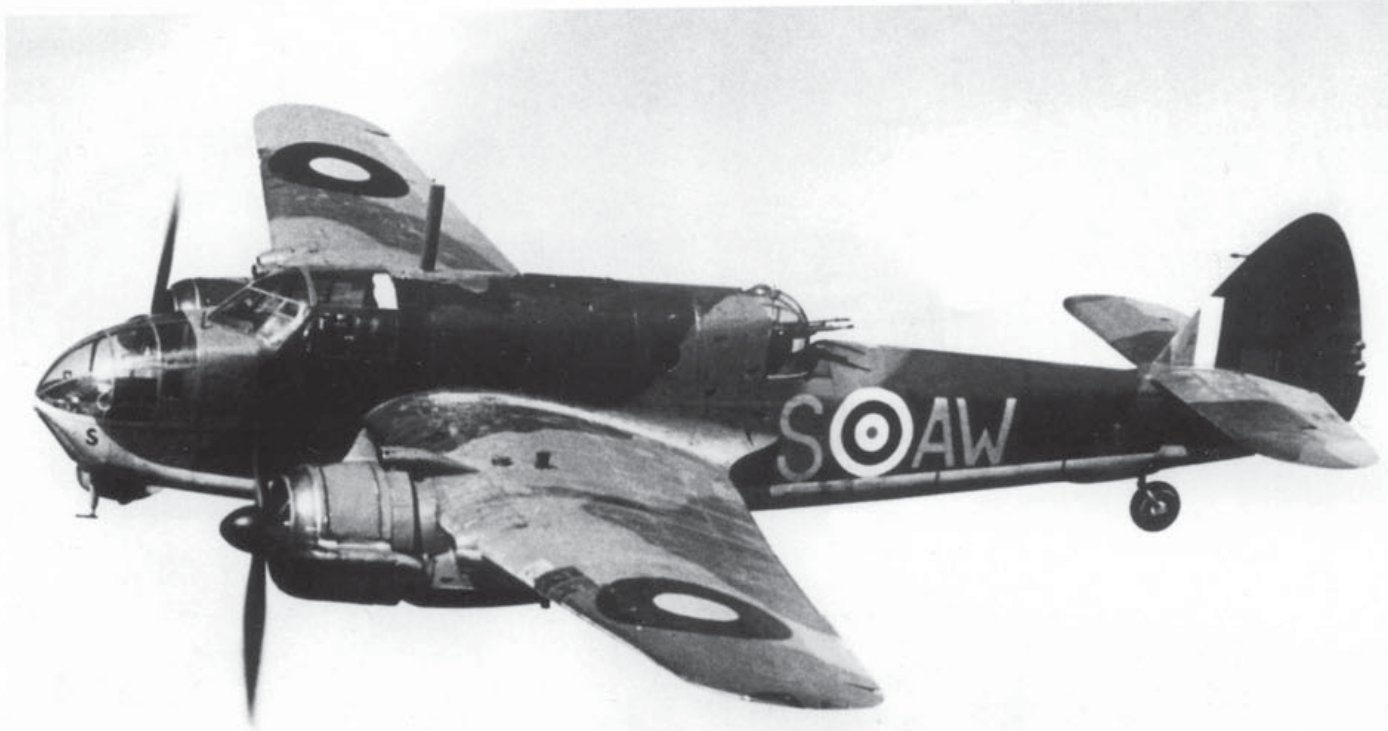
DAP turret

Bristol Beaufort Mk. VIII
Port side view

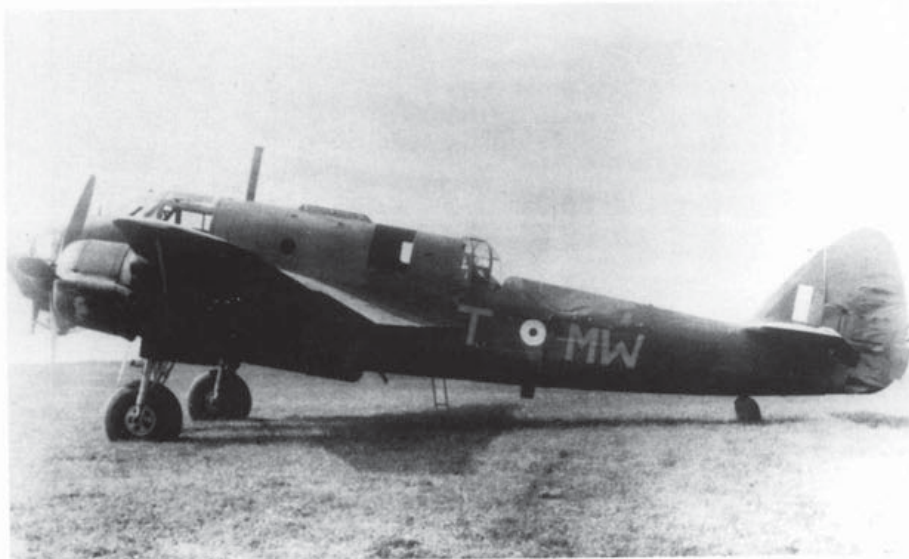
Vokes filter

Bristol Beaufort Mk. II Trainer
Port side view

Flame dampers



Beaufort Mk.I N1172 AW:S of No. 42 Squadron. On 8 April 1942 during a shipping strike in the Skaggerak this aircraft was forced to ditch after suffering flak damage. (Peter Green)



Above: Mk.I Beaufort X8918 MW:T of No. 217 Squadron photographed at Thorney Island in 1941. (MAP) Below: AW219 shows the Beaufort Mk.I's lower fuselage detail. Then spend some time with the manufacturers and with A&AEE before going to No.415 Squadron and subsequently with the FTU, and Nos.39, 22 and 217 Squadrons being struck off charge in December 1944. (MAP)



lacked ASV radar. By now supplies of the original standard gun turret were drying up and an alternative based on the Blenheim's turret with two 0.303in (7.7mm) Brownings was substituted which, together with a strengthened airframe and beginning with AW335, gave two new marks – the IA and IIA. By this time many Mk.I aircraft were being fitted with Taurus XII units which brought some improvements. In addition, in late 1942 dive brakes were introduced to allow Beauforts to make high speed dives but in service these were found to be unreliable and were quickly locked in the closed position.

During this period considerable amounts of internal equipment such as the radar, or some fuel tank armour plate or even a nose gun, were removed to keep the Beaufort's ever increasing maximum weight under control.

The Twin Wasp had fully-feathering propellers, which brought a great improvement to the Beaufort's single-engine performance, and the engine was indeed more reliable than its Taurus predecessor. Nevertheless the older Mk.I's, especially when re-engined with Taurus Mk.XII's, actually proved to be the most popular with crews because they were usually the fastest and most agile of all Beauforts. However, the Twin Wasp proved ideal for Middle and Far East operations because it was better suited for use in hot dry air and offered a longer range. The first Bristol-built Twin Wasp-Beaufort Mk.II to reach a squadron, AW252, joined No. 217 on 28 October 1941 and the first sortie by the variant was made on 25 November.

A further updated Beaufort was eventually proposed as the Mk.IV. This featured a turret with four machine guns and was first suggested at an official meeting held on 9

Right: W6498 AW:K of 42 Squadron. This machine was Struck Off Charge on 27 September 1945. (MAP) Lower right: During a shipping strike off Kristiansand, Norway, on 10 September 1941, X8930 piloted by Sgt Jennings had a battle with two Messerschmitt Bf 109s. He managed to 'land' at Leuchars and 309 bullet holes were found in his aircraft. (Andy Thomas via Peter Green)

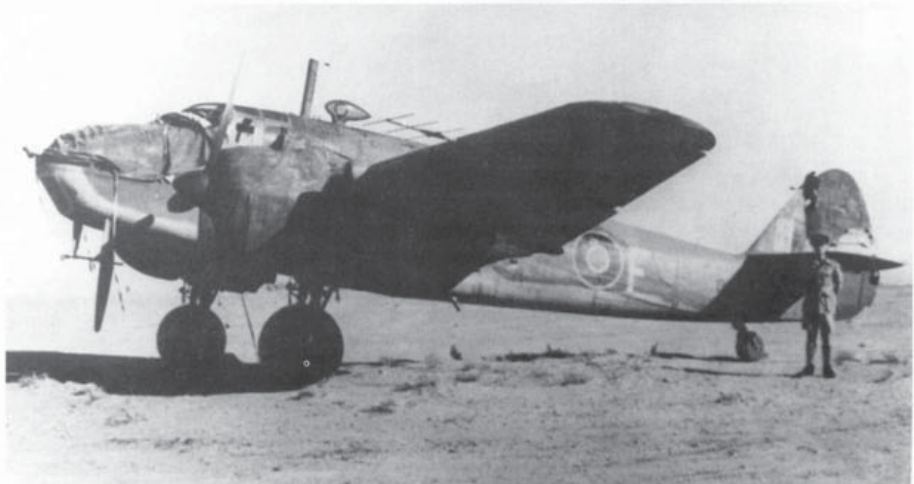
May 1941. Bristol estimated that the four-gun turret would have a negligible effect on performance but would add 235lb (107kg) of weight directly to give an all-up-weight of 21,777lb (9,878kg). On 30 January 1942 J. D. Breakey, the Director of Operational Requirements, noted that the proposal 'sounds practicable'. Plans were made for a trial installation and it was hoped that the version could be in production by the following November, although by the end of February 1942 it was clear that this target date could not be achieved.

The Mk.IV was also fitted with the new Taurus XX, which featured fully-feathering propellers and gave better fuel economy, plus other new equipment. AW372 was pulled from the production line to be fitted with these engines and the four-gun turret and, when tested during the first months of 1942, displayed a splendid performance with, at last, good safe single-engine qualities. Sadly the engine manufacturers had insufficient time and resources to put the Taurus XX into production and AW372 remained the only Mk.IV to be built. By 12 May 1942 it had been officially decided that the Mk.IV would not now be produced but an investigation was requested for fitting a four-gun turret into a Mk.II.

Apart from AW304, AW372 was also the only British-built Beaufort to sport the larger Australian fin. Other Australian improvements, including 0.5in (12.7mm) machine guns, sideways-looking radar and main-wheels fully enclosed when retracted, were not introduced onto British production lines.

In regard to weight, it was agreed on 5 May 1942 that, from a strength point of view, the all-up-weight of a Beaufort Mk.I should be increased to 21,500lb (9,752kg), although it was appreciated that the aircraft, which was already inclined to be sluggish (especially during its initial climb), might be seriously affected by the higher weight. By now Coastal Command was already of the opinion that the Mk.I should not be flown operationally above 21,000lb (9,526kg). On 26 June 1943, in anticipation of the four-gun turret plus additional armour and equipment, A&AEE issued a report on tests flights made with AW304 (Twin Wasp S3C4G) at 22,500lb (10,206kg). It concluded that aerodynamically the aircraft was unacceptable, mainly by reason of the need for continued directional and lateral control. In addition the 'overload' condition was very apparent after take-off since the aircraft had to be 'held down' for an unusually long time for it to reach a safe single-engine

Upper right and right: This was the condition of Wg Cmr Sprague's Mk.IA DE108 'F' of No. 47 Squadron after attacking an enemy convoy in the Mediterranean in October 1942. The machine was repaired and went on to serve with No.217 Squadron before being Struck Off Charge in India in December 1944. Note the wing-mounted radar aerial. (Peter Green)





flying speed. In view of these adverse characteristics, the report recommended that the proposal to operate Beaufort Mk.II aircraft in this overload condition should be waived.

AUSTRALIAN STORY

The Beaufort's Australian connections began in May 1938 when that country's

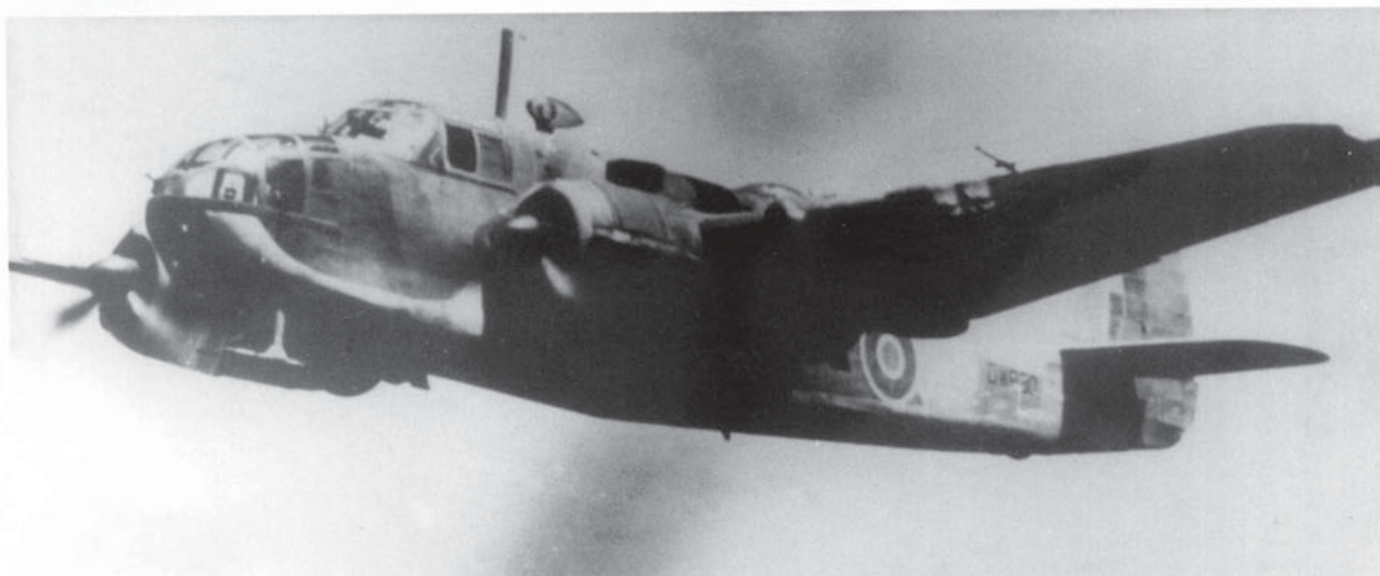
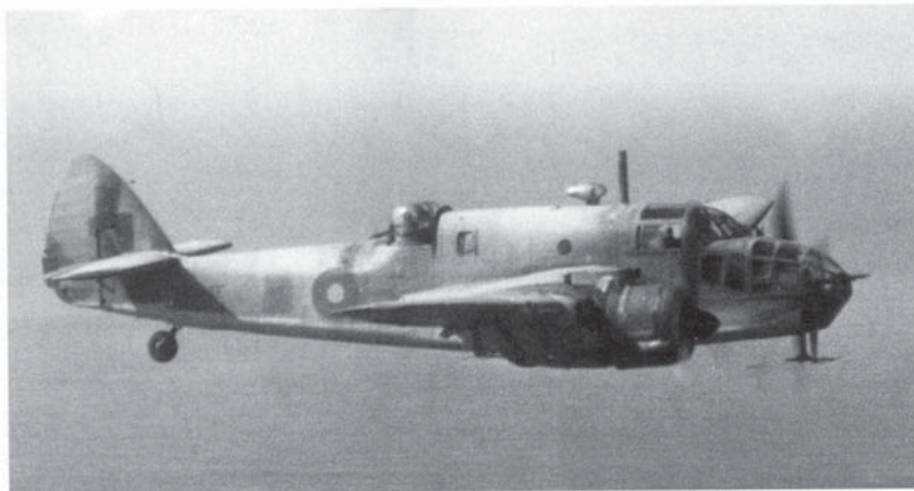
plans to acquire the Blenheim were dropped due to the type's impending obsolescence; thus an alternative was required and the Beaufort was recommended during the following August. After a British Air Mission visited Australia for discussions in December, it was confirmed on 23 March 1939 by Australian Prime Minister Lyons that a total of 250 Beauforts a year were to

be built both for the Royal Australian Air Force (RAAF) and RAF.

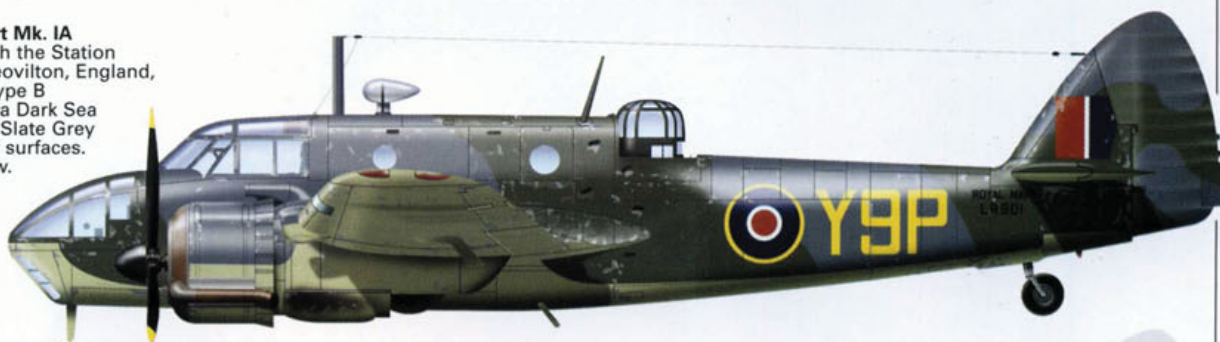
On 21 October 1939 the third production Beaufort Mk.I, L4448, was shipped out to serve as a pattern aircraft, together with another 20 sets of parts, although L4448 did not arrive in Australia until April 1940 which delayed the programme.

The project was controlled by the Aircraft Construction Branch of the Department of Supply and Development, which had been set up the previous July. In March 1940 this body was replaced by the Aircraft Production Commission and in June 1941 it became the separate Department of Aircraft Production. This organisation controlled all of the Government and private companies and factories that were to participate in producing Beauforts, including Commonwealth and De Havilland.

Left: DX157, a Beaufort Mk.IA, was photographed on 5 May 1944. (Peter Green) Below: Mk.IA DW830, seen here with No.47 Squadron in about 1943, later served with the South African Air Force. (Peter Green)



Bristol Beaufort Mk. IA
LR901:Y9-P with the Station
Flight RNAS Yeovilton, England,
Spring 1945. Type B
scheme of Extra Dark Sea
Grey and Dark Slate Grey
over Sky lower surfaces.
Codes in yellow.



Bristol Beaufort Mk. IIT
ML621:PIC of 762 Naval Air
Squadron, Dale,
Pembrokeshire, Wales,
1945. Overall white with
Extra Dark Sea Grey upper
surfaces. Codes in
yellow. Note the
exhaust flame
dampers.



Bristol Beaufort Mk. II 4621 (ex RAF
serial ML509) of 105th Torpedo
and Reconnaissance Group,
Yessilkoy, Turkey, Summer
1945. Type B scheme of
Extra Dark Sea Grey and
Dark Slate Grey over
Azure Blue lower
surfaces. Note
fresh paint
covering
previous RAF
markings and
codes.



The type's split assembly construction was a big help for the Australian factories selected to build the type and over 600 sub-contractors became involved producing components for two final assembly lines. There were lines for engines at Commonwealth Aircraft Corp, Lidcombe, New South Wales (NSW), undercarriages and propellers in Alexandria, NSW, gun turrets at Fairfield, Victoria and three major airframe section lines in former railway workshops at Chullora, NSW (front fuselage, stern frame and engine nacelles), Islington, South Australia (centre-section and mainplane) and Newport, Victoria (rear fuselage, tailplane, elevators, fin and rudder). The whole lot was then put together on two lines belonging to the Government Aircraft Factories, at Mascot, NSW, and Fishermen's Bend in Victoria, and a repair yard was also established at Essendon in Victoria. The production of the Beaufort brought a big step forward in the manufacturing capability of Australia's aircraft industry.

As noted, the first order, announced in July, covered 90 Beauforts to supply Nos. 36 and 100 RAF Squadrons in the Far East, with another 90 for the RAAF.

However, the fall of Singapore in 1942 changed matters and the examples intended for the RAF, all Twin Wasp-powered and fitted with larger fins, went to the RAAF

Beaufort Mk.I X8931 as 'L2' of No. 3 OTU. After also serving with 5 OTU, this aircraft was finally Struck Off Charge on 31 January 1946. Note the chin gun mount (with the gun facing forwards!). (IWM via Peter Green)

instead. It had been intended to fit Taurus to these machines but this proved impossible after the British Government had placed an embargo on the export of strategic materials in May 1940. L4448 had to be refitted with Twin Wasps, a step which proved to be a major task for the Australian aircraft industry and delayed the aircraft from making its first flight until 5 May 1941.

The first RAF-ordered machine, T9540 built from one of the 20 kits, first flew from Fishermen's Bend on 22 August 1941, while the first Beaufort off the Mascot line was T9541 which flew on 15 October. T9540

was sent for trials to the Experimental and Special Duties Flight at No. 1 Aircraft Depot at Laverton on 25 August and one of the problems needing to be resolved was oscillation in roll and yaw. If not corrected by rudder the instability became quite severe and, if the rudder or aileron was disturbed slightly, it became a lot worse in a turn, straight and level flight or in a climb. This and other associated disturbances were cured by adding more dihedral to the tailplane which moved the surface into a different part of the slipstream or downwash, the level of coupled oscillations thus





Beaufort Mk.II DD942:H belonging to No. 39 Squadron at Protville, Tunis, June 1943 (Peter Green)

being reduced to a degree that was considered acceptable.

During 1941 orders and production rates were increased and in 1942 the Beaufort was given the highest priority rating for the RAAF. Eventually 700 machines were completed and, initially, their Twin Wasps were imported until the first home-built power units came on stream in November 1941. The first Beauforts were built as Mk.IIs

(later redesignated Mk.Vs) but other mark numbers had to be introduced to cover variations in the engines and types of propellers fitted (depending on their availability). The Mk.VI had Twin Wasp S1C3-G engines and 11ft 6in (3.51m) diameter Curtiss Electric propellers, Mk.VII the same engines but 12ft (3.66m) Hamilton (DH) constant-speed bracket propellers, and the Mk.VA S3C4-G engines and Hamilton propellers. However, the majority were Mk.VIIIs which had the S3C4-G and later Blenheim-type turret, plus the twin forward-firing Vickers K guns

which were also retrofitted to older machines. (The Mk.VIII could outclimb the Australian Beaufighter recording 1,200ft/min [366m/min] at 7,000ft [2,134m] against 830ft/min [253m/min], and 800ft/min [244m/min] at 15,000ft [4,572m] against 540ft/min [165m/min].)

Apart from the need to fit racks to carry the 2,176lb (987kg) 22.4in (56.9cm) diameter

Beaufort Mk.II belonging to No. 39 Squadron taken with a Maltese background. The aircraft appears to have small bombs under the wings (Peter Green)



American Bliss-Leavitt torpedo and, in many cases, using the single rear-facing Browning chin gun well into 1943, Australian Beauforts followed British practice in both their offensive and defensive weaponry. There was however, a new gun position to cover ahead and above – a Vickers K gun with glazed panels installed in the roof of the cabin above the beam positions. In around late August 1941 T9540 began flight testing the larger fin and by December 1941 this was being fitted to production aircraft; indeed only L4448, T9540 (and perhaps T9541) actually flew with the original fin. Australian machines all had retractable tailwheels but problems with shimmy meant they were often locked down until this weakness was cured. From A9-351 onwards a modified turret was fitted which gave more room for the gunner and traversed 240deg.; this could also take 0.5in (12.7mm) machine guns, although they were never fitted, but these larger calibre weapons were mounted in the wings of A9-541 onwards.

The first Beauforts joined a detachment from No. 100 Squadron based in Australia, the RAF unit having been sent to Bankstown to form on these Australian-built aircraft. In early December 1941 six were dispatched to Malaya and, while based at Singapore, T9543 flew some long-range reconnaissance sorties during which it located the approaching Japanese invasion fleet (T9543 was destroyed by strafing at Kota Bharu on the day the invasion began). On 25 February 1942, after the fall of Singapore, No. 100 Squadron became part of the RAAF as No. 100 Squadron RAAF, the RAF having abandoned plans to have its own torpedo bomber units operating in the Pacific. All of the operational marks entered service in 1942, the first Mk.VI T9606 joining No. 100 on 30 May, the first Mk.VII A9-103 to No. 7 Squadron on 17 September and the first Mk.VIII A9-184 to No. 100 on 20 December; by the end of the year Nos. 7 and 14 Squadrons RAAF had converted to Beauforts. No. 1 OTU trained Beaufort crews in advanced flying but torpedo drop training was the domain of the Base Torpedo Unit at Nowra, and later by a specialised unit, No. 6 OTU.

Much of the RAAF Beaufort operational

N1154 as MW:B of No. 217 Squadron went missing during a bombing raid on Brest on 7 December 1940. (IWM)

Bristol Beaufort Data

Taken from 'The Beaufort File' by Roger Hayward

Power plant:

Mk.I: 2 x Bristol Taurus II or VI, 1,085bhp (809kW) M Gear
Mk.IA: 2 x Bristol Taurus VI or XII, 1,130bhp (843kW) M Gear
Mk.II, Mk.IIA, Mk.V, Mk.VIII & Mk.IX: 2 x Pratt & Whitney Twin Wasp S3C4, 1,200bhp (895kW)
Mk.III (project only): 2 x RR Merlin XX, 1,250bhp (932kW)
Mk.IV (prototype only): 2 x Bristol Taurus XX, 1,250bhp (932kW).

Dimensions and Weights:

Span: All marks 57ft 10in (17.63m)
Length: All marks (excluding nose guns) 44ft 2in (13.46m)
Gross Wing Area: All marks 503sq.ft (46.78sq.m)
Undercarriage Track: All marks 18ft (5.49m)
Maximum Weight: Mk.I 20,000lb (9,072kg) (early aircraft 18,500lb/8,392kg)
Mk.IA, Mk.II & Mk.V 21,000lb (9,526kg)
Mk.IIA, Mk.VIII & Mk.IX 21,500lb (9,752kg)
Mk.III 23,000lb (10,433kg)
Mk.IV 22,500lb (10,206kg)

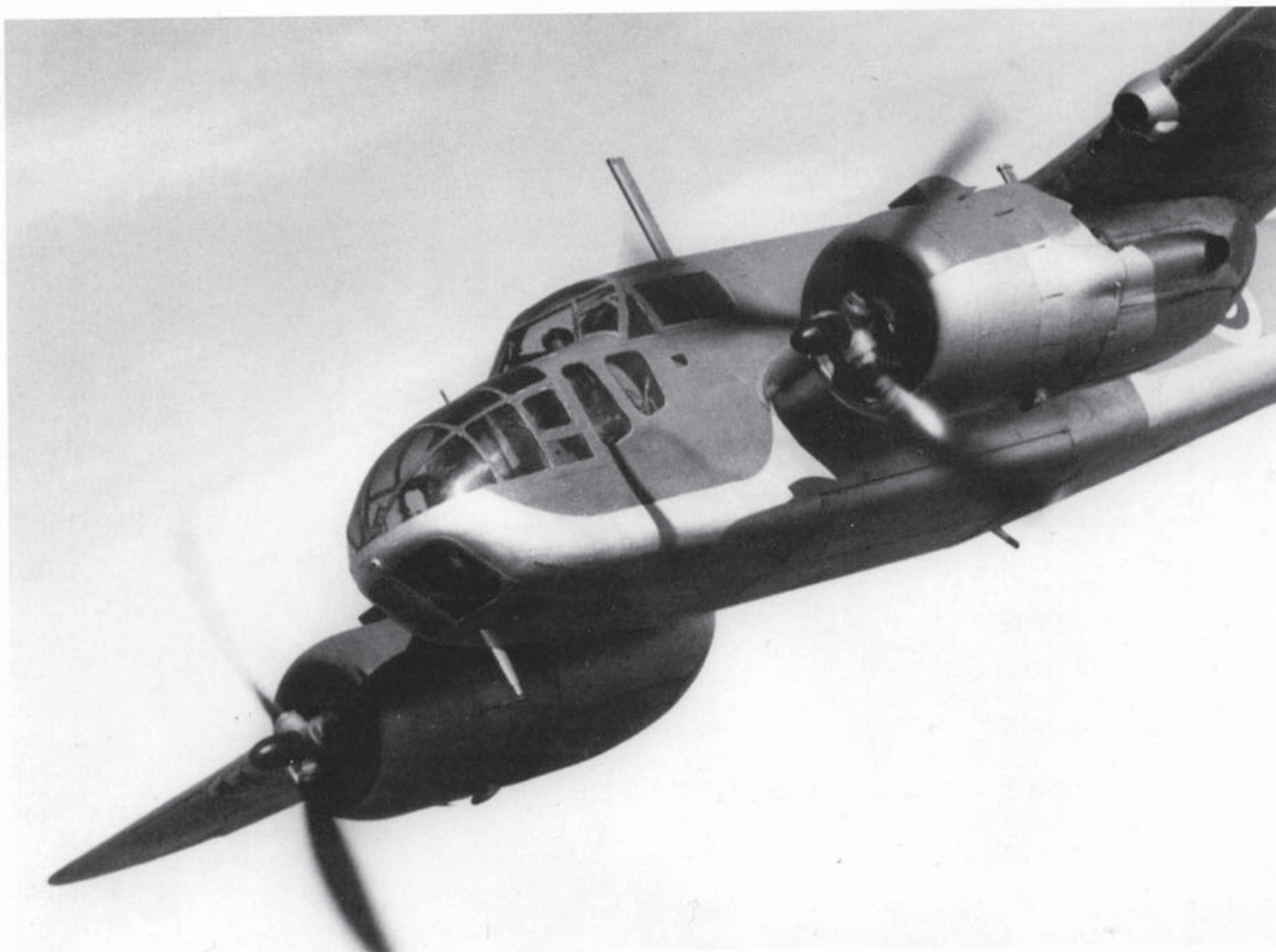
Performance:

Maximum Speed: Mk.I 252mph (405km/h) sea level, 275mph (442km/h) at 6,500ft (1,981m)
Mk.IA 228mph (367km/h) sea level, 247mph (397km/h) at 5,000ft (1,524m)
Mk.II 253mph (407km/h) sea level, 278mph (447km/h) at 14,000ft (4,267m)
Mk.IIA 236mph (380km/h) sea level, 260mph (418km/h) at 14,500ft (4,420m)
Mk.III (estimate) 268mph (431km/h) at 5,000ft (1,524m), 316mph (508km/h) at 20,000ft (6,096m)
Mk.IV 274mph (441km/h) at 5,500ft (1,676m)
Mk.V 256mph (412km/h) sea level, 272mph (438km/h) at 14,500ft (4,420m)
Mk.VIII 241mph (388km/h) sea level, 268mph (431km/h) at 14,500ft (4,420m)
Mk.IX 290mph (467km/h) at height
Max. Cruise Speed: Mk.I 225mph (362km/h) at 15,000ft (4,572m)
Mk.IA 199mph (320km/h) at 5,000ft (1,524m)
Mk.II 204mph (328km/h) at 5,000ft (1,524m)
Mk.IIA 196mph (315km/h) at 5,000ft (1,524m)
Mk.IV 232mph (373km/h) at 5,000ft (1,524m)
Service Ceiling: Mk.I 19,000ft (5,791m)
Mk.IA 15,000ft (4,572m)
Mk.II 23,000ft (7,010m)
Mk.IIA 21,000ft (6,401m)
Mk.IV 21,000ft (6,401m)
Mk.V 25,700ft (7,833m)
Mk.VIII 25,000ft (7,620m)
Normal Range: Mk.I 1,600 miles (2,574km)
Mk.IA 1,510 miles (2,430km)
Mk.II 1,510 miles (2,430km)
Mk.IIA 1,410 miles (2,269km)
Mk.III (estimate) 1,560 miles (2,510km)
Mk.IV 1,740 miles (2,800km)
Mk.V 1,560 miles (2,510km)
Mk.VIII 1,450 miles (2,333km)

Armament:

Offensive Load: All marks up to 2,200lb (998kg) torpedoes, bombs or mines in bomb bay.
Mk.I (except last 75), Mk.III & Mk.V 500lb (227kg) under wings.
Last 75 Mk.I, Mk.IA, Mk.II, Mk.IIA, Mk.IV & Mk.VIII 1,000lb (454kg) under wings.
Mk.IX 1,400lb (635kg) cargo in bay, 700lb (318kg) under wings in standard containers.
Defensive Guns: Mk.I: 6 x 0.303in (7.7mm) machine guns – 1 Browning in chin position (not all aircraft), 1B in wings (last 75 had 2), 2 Vickers in beam position (not all), 2V in turret (a few 1 gun only); (a few Mk.Is had 1 or 2V in nose).
Mk.IA & Mk.IIA: 8 x 0.303in – 2V nose (not all), 2B wings, 2V beam, 2B turret.
Mk.II: 7 x 0.303in – 1B chin (not all), 2V wings, 2V beam, 2V turret; (a few 1V or 2V nose).
Mk.III: 7 x 0.303in – 2B nose, 1B chin, 2V beam, 2V turret.
Mk.IV: 10 x 0.303in – 2V nose, 2B wings, 2V beam, 4B turret.
Mk.V: 10 x 0.303in – 2V nose (not all), 1B chin, 2B wings, 2V beam, 1V dorsal position (not all), 2V turret.
Mk.VIII: 9 x 0.303in – 2V nose, 2B wings (late aircraft had 0.5in [12.7mm] mgs), 2V beam, 1V dorsal, 2B turret.

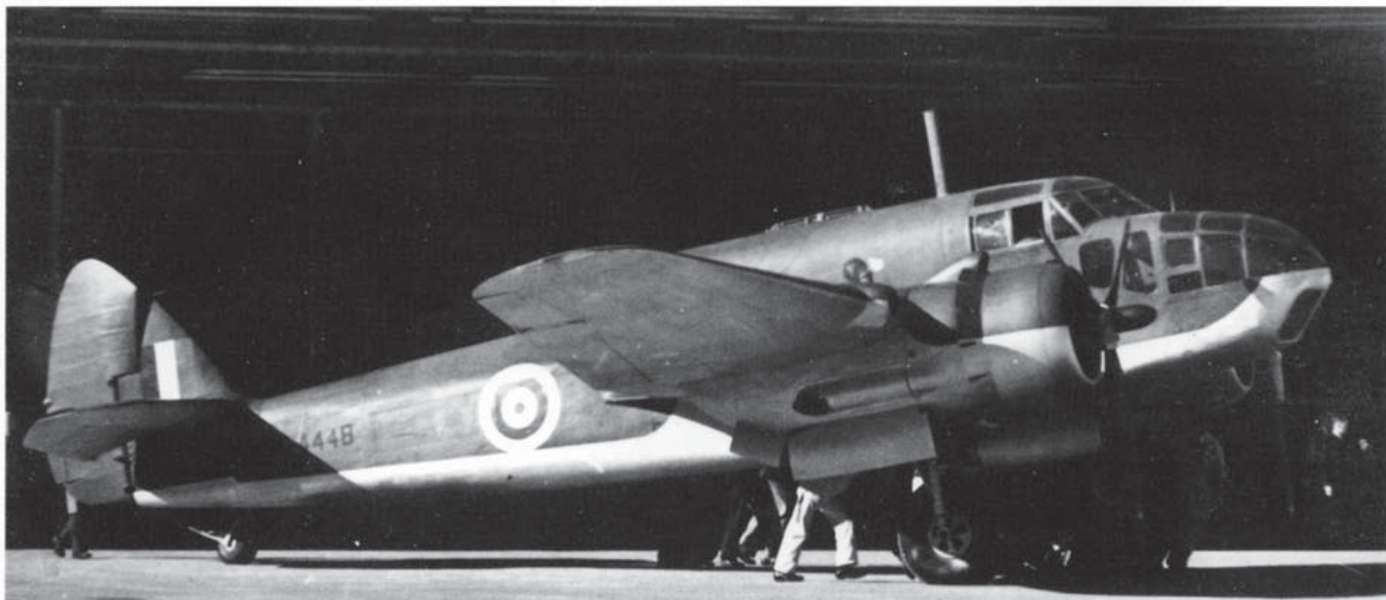




Above: Good action picture of Beaufort Mk.II T9540, the first Australian-built machine assembled using kits supplied by Bristol, which shows detail of the Twin Wasp installation. (Peter Green)

Below: Bristol Beaufort Mk.I W6519 coded 'Y' of No. 39 Squadron was damaged beyond repair and struck off charge following a heavy landing at Bu Amud on 22 March 1942. (RAFM via Alan Hall)





The first 'Australian' Beaufort was Mk.I L4448 shipped out from England in 1940. It is seen here at Mascot in May 1941. (Peter Green)

flying was centred around maritime duties – anti-shipping and anti-submarine – and were entirely so until March 1943 when long-range bombing sorties were started against Japanese harbours and ports, including from October 1943 a long campaign against Rabaul. Anti-ship duties lasted until February 1944 while the Beauforts also completed many other reconnaissance and transport sorties. No. 100 Squadron's first offensive operation took place on 27 May 1942 and its first major success was the Japanese destroyer *Hayashio* (2,033 tons), already damaged by USAAF Boeing B-17 bombers, which was finished off by a torpedo from A9-29 on 24 November; during the same operation off Buna A9-42 severely damaged the torpedo boat *Hiyodori* with a 500lb (227kg) bomb.

Nos. 7 and 32 Squadrons did not become operational on torpedo dropping, instead undertaking patrol and bombing sorties during which No. 32 damaged the large submarine *I-174* on 17 June 1943.

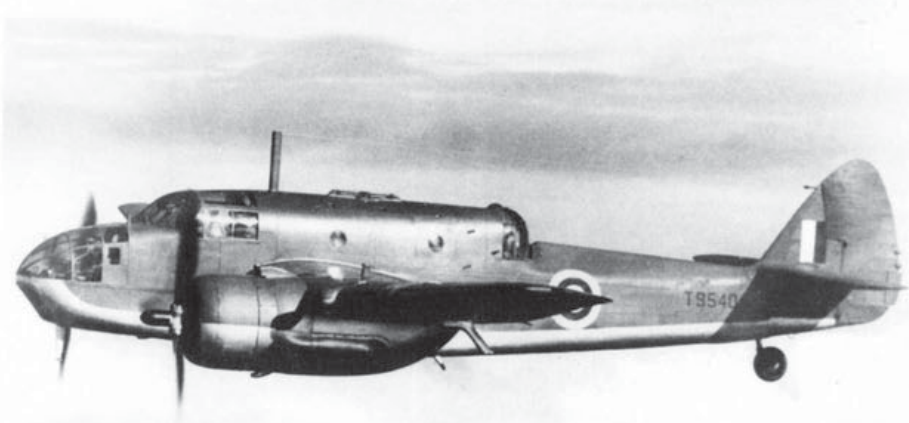
In 1943 there were few torpedo successes until the merchant ship *Keisho Maru* (5,898 tons) was sunk by torpedo from No. 8 Squadron off Rabaul on 13 October. On the 22nd Beauforts from Nos. 6, 8 and 100 Squadrons (known as No. 71 Wing) dive-bombed and severely damaged the Japanese light cruiser *Kiso* off Cape St. George, the ship having to be towed to Truk for repairs. By the end of the year the Japanese had decided that it was too dangerous to operate large ships in the Rabaul area and, in consequence, no torpedo attacks were made after 4 December – in fact the operations on that day were the last Beaufort torpedo sorties to be flown anywhere in the world.

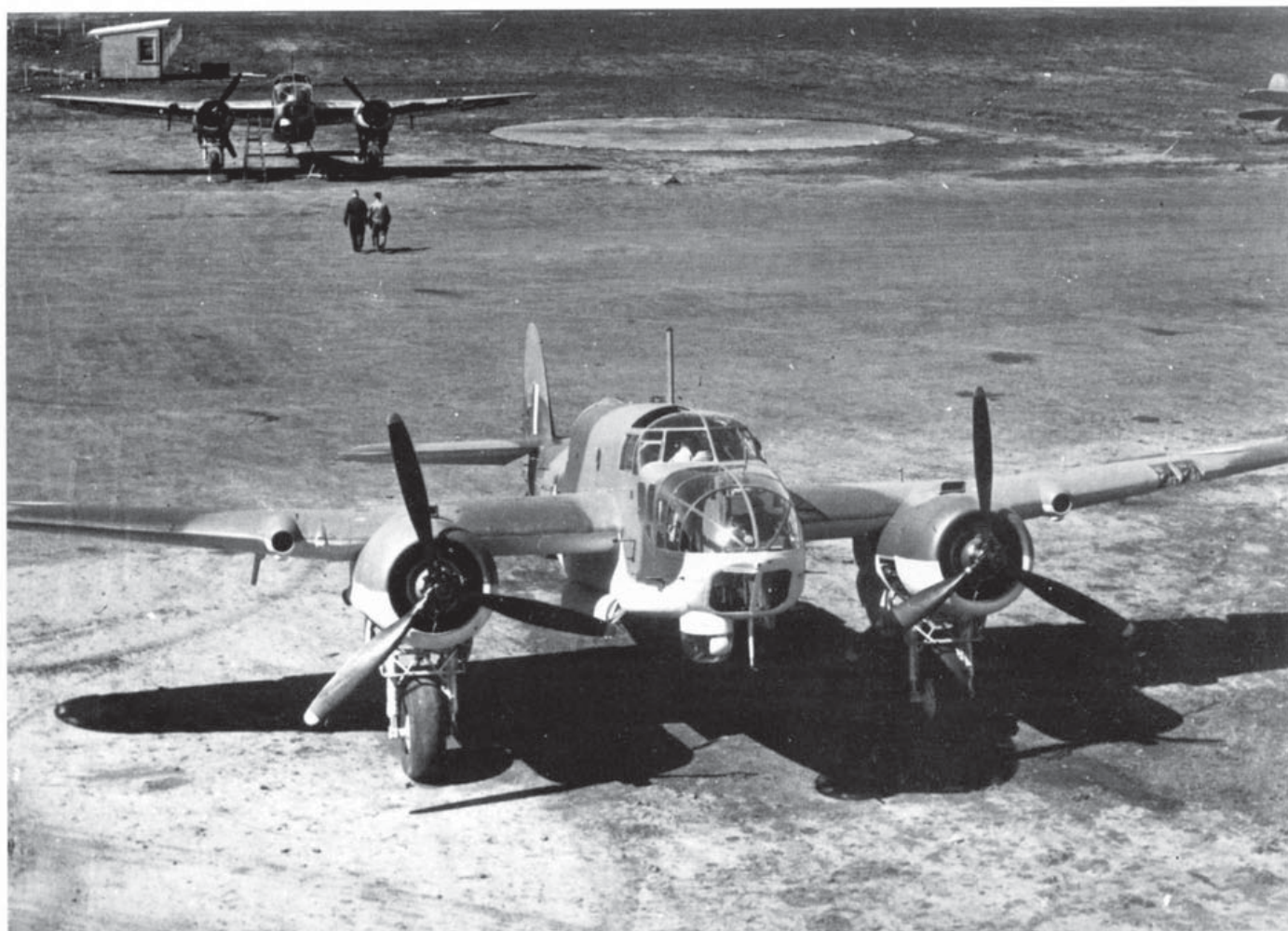
No. 2 Squadron acquired its first Beaufort on 15 December 1943 followed by No. 1 Squadron in February 1944 and these units operated against Timor and over the Arafura Sea, where the coastal minesweeper *Wa 4* (215 tons) was sunk at Dili on 19 July.

T9540 later became the RAAF's Beaufort Mk.V A9-1 and was Struck Off Charge on 8 August 1949. (MAP)



Above: AW243 AW:O of No. 42 Squadron went missing during a shipping strike off Norway on 11 December 1941, shortly after this picture was made. Note the turret and chin guns and the array of antenna above and below the fuselage. (Peter Green) Below: Mk.IA DD995 'T' of 217 Squadron after a force landing at Sidi Birani on New Year's Eve 1942. (Peter Green)





This RAAF Beaufort Mk.VII shows detail for the offset chin gun and the Twin Wasp airscrews. (Peter Green)

The last front line unit to receive the type was No. 15 Squadron, operational from 22 April, and during April and May of 1944 the RAAF actually had nine Beaufort squadrons on strength. However, No. 2 soon converted to the North American B-25 Mitchell and, after its last sortie on 9 January 1945, No. 1 began converting to the Mosquito.

Through much of 1945 RAAF Beaufort units were based at Tadji to undertake ground attack and tactical operations as back up for the Australian army trying to defeat the Japanese in the Aitape and Wewak regions. In this role the Beaufort's agility was a key factor which, surprisingly, ensured that the type was very successful and during the campaign the aircraft was required to fly many short duration sorties. The number of sorties correspondingly increased and on 11 May 1945 60 Beauforts from five units bombed targets close to Wewak.

Experience showed that the RAAF's Beauforts proved to be superior medium-altitude bombers than their UK-built contemporaries but retained their agility for evading enemy fighters.

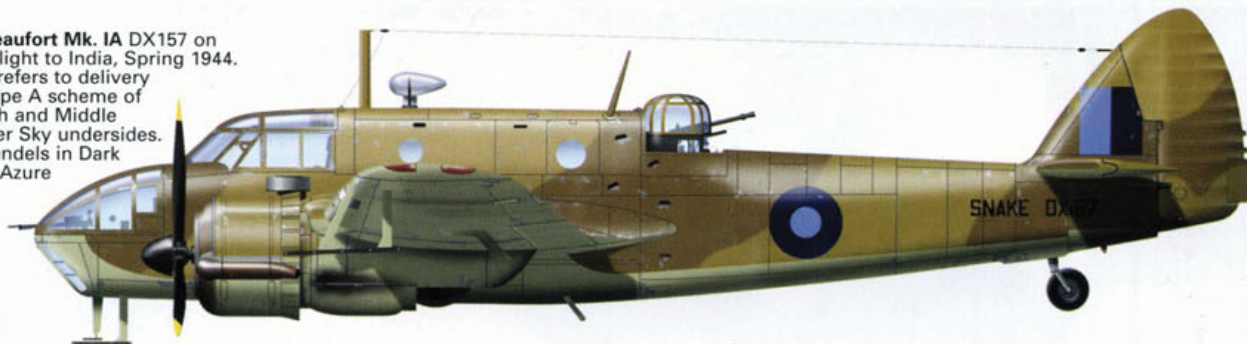
During 1944 there was shortage of transport aircraft and, eventually, 46 Mk.V, VI and VIII Beaufort airframes, all of them due for major overhaul, were converted into nine-seat high-speed communications aircraft. The work was done at Essendon and when completed, these were essentially new aircraft. The armour and weapons were



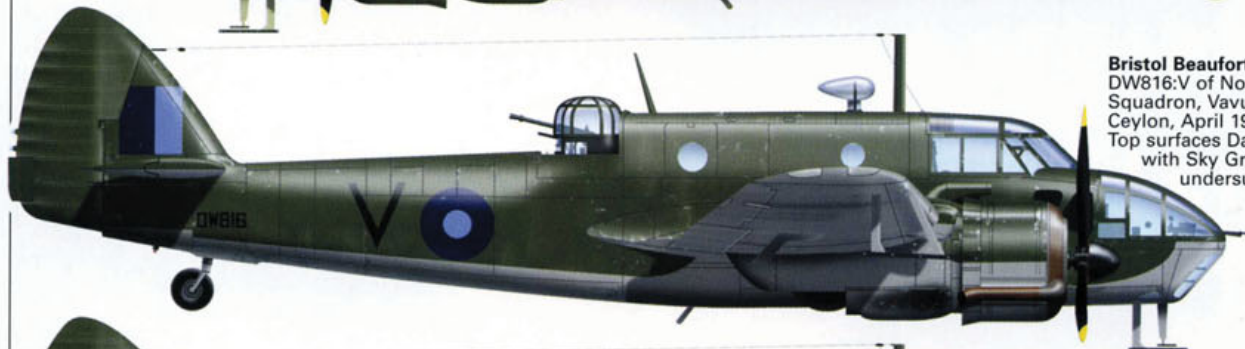
Above: A9-168, a Mk.VA, shows details of its RAAF fittings and markings. (Peter Green) Below: This group of Bristol Mk.II Beauforts belongs to No. 86 Squadron. (RAF Museum via Peter Green)



Bristol Beaufort Mk. IA DX157 on delivery flight to India, Spring 1944. 'SNAKE' refers to delivery status. Type A scheme of Dark Earth and Middle Stone over Sky undersides. SEAC roundels in Dark Blue and Azure Blue.



Bristol Beaufort Mk. IA DW816:V of No. 22 Squadron, Vavuniya, Ceylon, April 1944. Top surfaces Dark Green with Sky Grey undersurfaces.



Bristol Beaufort Mk. IA DW891:Q of No. 217 Squadron, Vavuniya, Ceylon, April 1944. Top surfaces Dark Green with Sky Grey lower surfaces. Code in red.



Bristol Beaufort Mk. II T9540, the first Beaufort assembled in Australia, Fisherman's Bend, 1941. Type A scheme of Dark Green and Dark Earth over Aluminium lower surfaces.

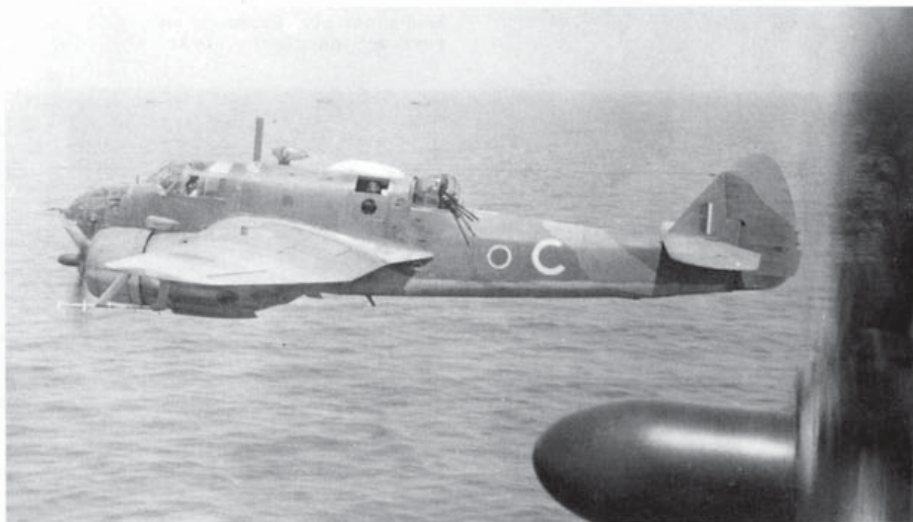


Bristol Beaufort Mk. V A9-66:66 of No. 1 OTU, RAAF, 1943. Type A scheme of Foliage Green and Earth Brown over Sky Blue lower surfaces. Note early RAF roundel and yellow codes.

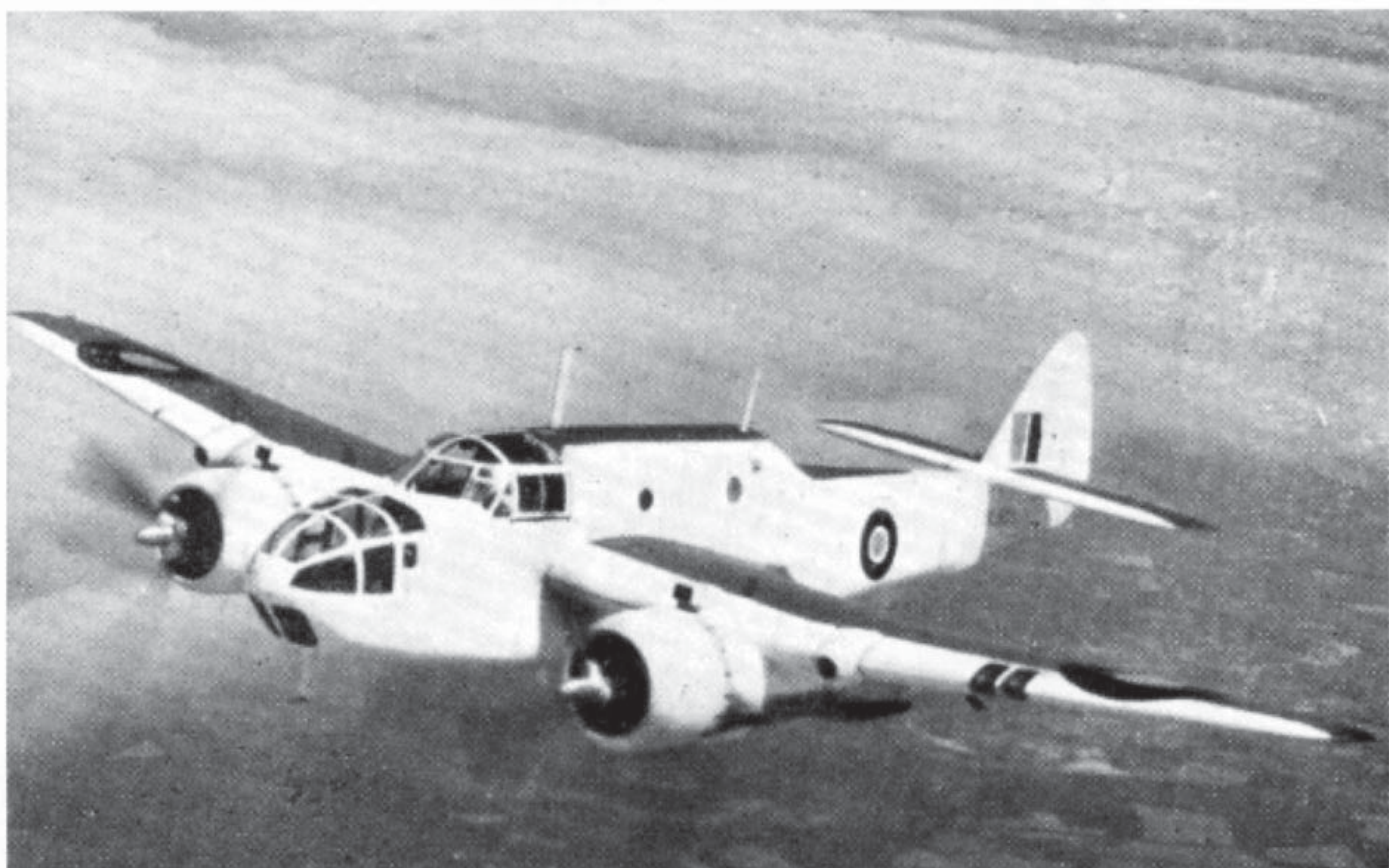
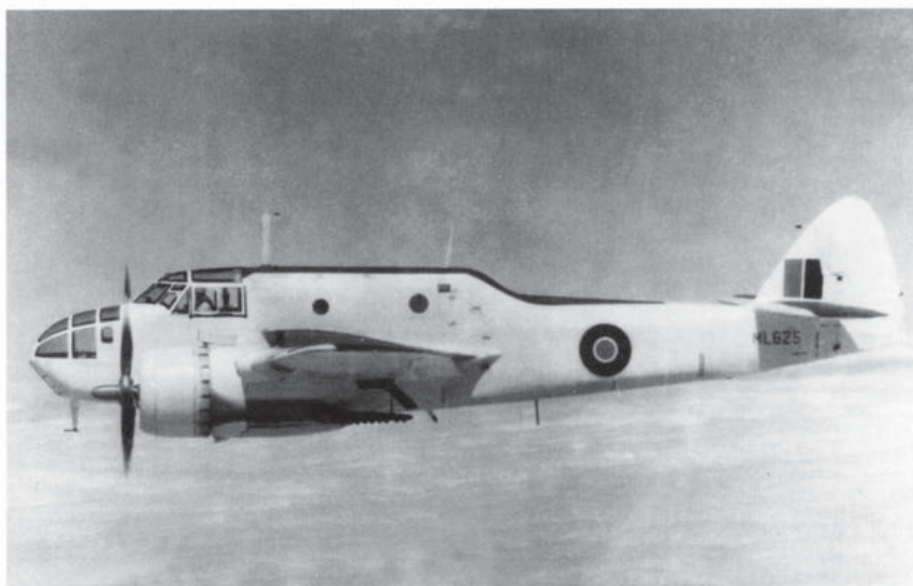


Bristol Beaufort Mk. V A9-27:B of No. 6 OTU, Jervis Bay, New South Wales April 1943. Type A scheme of Foliage Green and Earth Brown over Sky Blue lower surfaces. RAAF roundels in Dark Blue and white.





Above: Beaufort DD906 'C', a Mk.II with No.39 Squadron, seen during a daylight sweep from Luqa during March or April 1943. (Peter Green)



gone, a fairing over the rear fuselage and double tail wheels were fitted and the prototype, A9-201 but later renumbered A9-743, first flew as a transport Beaufreighter Mk.IX on 4 February 1944. Afterwards A9-201 was further modified with a new lower rear fuselage and had the weapon bay modified as a freight hold to carry a large crate, but problems with spares prevented this modification from being taken up by the RAAF and the aircraft was subsequently returned to Mk.IX standard.

There was little peacetime work for RAAF Beauforts and all front line machines went to store or scrap in 1946. A few Mk.IXs undertook trials but after October 1948 there was no further flying. Many stored aircraft did actually survive until 1953 but, when it was established that the Korean War would soon be over, these too were discarded. A9-635 however, found some civil employment during 1947/48 testing fire extinguishing systems for the NSW Department of Civil Aviation.

OTHER USERS

A total of 200 Beauforts were supplied from late 1941 onwards to other air forces outside the RAF and RAAF. No. 415 Squadron Royal Canadian Air Force (under RAF control) had six aircraft on strength between September 1941 and January 1942. During November 1941 a new Operational Training Unit (OTU), No. 32 (Coastal), was formed at RAF Sidney on Vancouver Island which also, after the Japanese attack on Pearl Harbor on 7 December, operated for a brief

Left and below: Beaufort Mk.II trainer ML625 was used to make a set of recognition photographs and the results included these pictures which show the new upper fuselage fairing that replaced the turret. ML625 joined the Fleet Air Arm in May 1945. (Peter Green)



Well-known but spectacular view of A9-700 flying over Sydney Harbour in August 1944. (Peter Green)

and in England. At least ten Mk.IIAs followed in 1945 and all were allocated to the 105th Torpedo and Reconnaissance Group to patrol the Black Sea and Bosphorus. The older aircraft were replaced in 1947 by Beaufighters while the Mk.IIAs lasted until 1950 to become the last Beauforts to fly. No torpedoes were carried by the Turkish machines because these aircraft were used as reconnaissance bombers.

TRAINING AND EXPERIMENTAL

From early in its career the Beaufort was used for training and the large number employed on such work often left the front line squadrons short. For example, during the 'Channel Dash' voyage made by the German battle cruisers *Sharnhorst* and *Gneisenau* and heavy cruiser *Prinz Eugen* from Brest to their German homeland on 12 February 1942, a move which caught the UK's forces asleep, only 29 front line Beauforts were available to attack them when around 70 were in the hands of training units (those that took off were unable to influence the outcome and the ships made it home).

For most of this period the Beaufort Operational Training Units undertook all flying and armament tuition except for almost all of the torpedo dropping, which

period as No. 32 Torpedo Bomber Squadron carrying out patrols over the Eastern Pacific. In due course the RCAF decided that it wanted a force of its own and formed No. 149 (Seawolf) Squadron at Patricia Bay near RAF Sidney on 26 October 1942. It received its Beauforts from 32 OTU, when that unit switched to training Hampden crews, but in terms of modifications these machines were out of date and the survivors were withdrawn on 16 August 1943 to be replaced by Lockheed Venturas. Twelve Beauforts passed into Canadian hands and three actually survived until March 1947 before being scrapped.

During 1941 the South African Air Force requested 18 Beauforts to provide a more capable offensive force to protect the shipping lanes around the Cape. Britain confirmed that this was the maximum number available and so the SAAF equipped two Flights, Nos. 36 and 37 both at Winfield, with seven Beauforts each. They completed some patrols before, in late April, moving north to take part in the invasion of Madagascar, then under Vichy-French control, in a move to stop any Japanese forces from taking over. They stayed until mid-November and performed many patrols and sorties searching for submarines before, on 3 July, both Flights were merged with No. 32 Flight (flying Martin Marylands) to form No. 20 Squadron. Initially only the northern part of the island was taken, but it was eventually decided to take all of it and on 4 September the unit came under the control of No. 207 Group RAF and was renumbered No. 16 Squadron (to prevent confusion with No. 20 Squadron RAF). The island surrendered on 6 November.

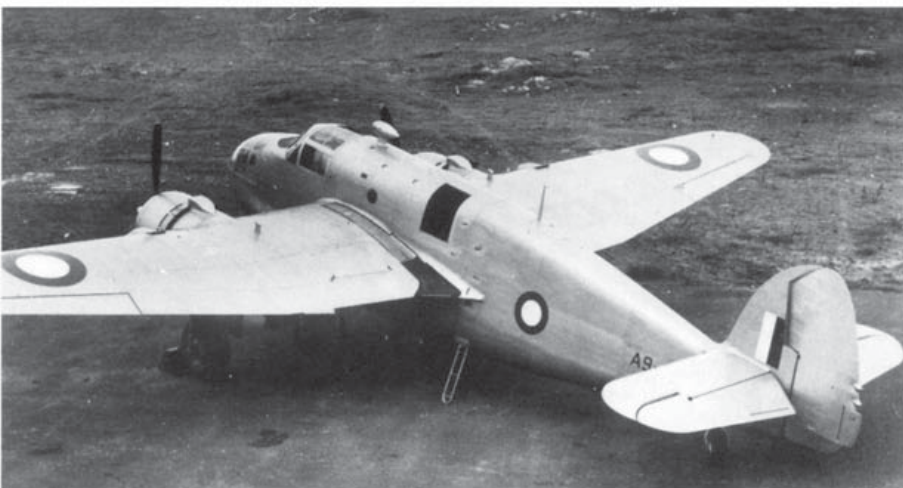
The SAAF Beauforts were returned to the RAF and replaced by Blenheims but the latter were grounded on 8 June 1943 after moving to the Middle East. A further 40 Beauforts were eventually supplied, both Taurus and Twin Wasp variants, to replace the Blenheims and these served with No. 16 Squadron from 15 June 1943 until 28 February 1944. Their duties included patrols out of North Africa and then, during September, sorties to cover the invasion of Sicily. They also escorted the Italian battle fleet to its surrender, the warships of which having for some time previously been

important Beaufort targets.

Six Beauforts served with No. 489 Squadron Royal New Zealand Air Force at Leuchars from August 1941, the intention being to form a front line unit but, like No. 415 RCAF, the four survivors were withdrawn in early 1942 to supplement the strength of stretched RAF units (both Canadian and New Zealand aircraft retained their RAF serials). In 1944 some Beaufort Mk.IAs (at least 11) were supplied to the Turkish Air Force, Turkish pilots having already flown the type in the Middle East



Above: An aggressive-looking group of RAAF Beaufort Mk.VIs. Nearest is A9-70 which went missing during an over-water training flight on 7 February 1943. (MAP via Peter Green) Below: From this angle the Mk.IX does not look as if it belongs to the Beaufort family. This picture is believed to have been taken on 14 January 1945. (Peter Green)





Above: The last Australian-built Beaufort was A9-700 which stayed with the manufacturers and lasted until 1949. Note the complex array of antennae for the sideways-looking ASV IIB radar with its underlying Yagi receiving aerials. This machine also sported 0.5in (12.7mm) wing guns. (Peter Green)



A9-168, a Beaufort Mk.VA, shows details of its RAAF fittings and markings. Another picture is shown on page 30 (Peter Green)

was the domain of Nos. 1 and 2 Torpedo Training Units. The Beaufort also proved to be a good training aircraft for crews passing on to Beaufighter and de Havilland Mosquito squadrons while RAF Fighter Command's Nos. 51, 54, 60 and 63 OTUs used Beauforts for night fighter and intruder pilot training. Many other units and Establishments had Beauforts on strength at some stage.

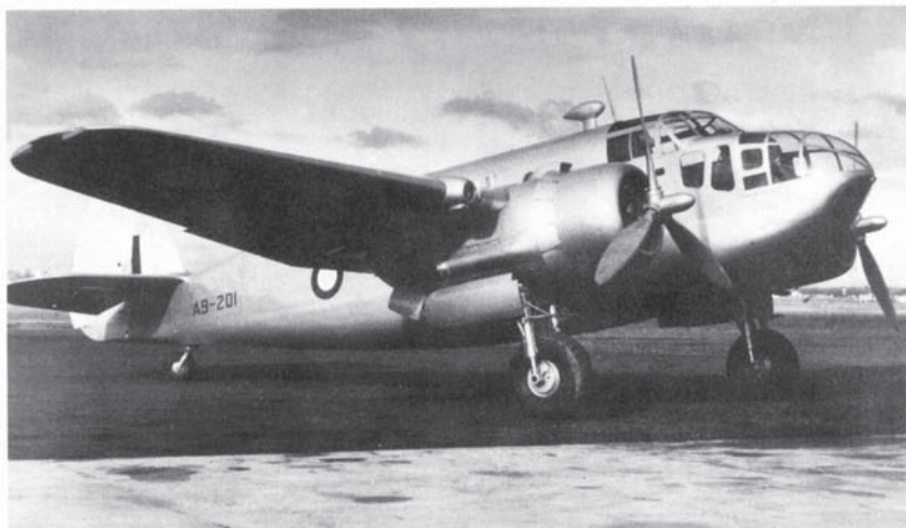
After the Afrika Korps had been beaten and it was clear that Japan no longer offered a naval threat to India, the front line Beauforts were withdrawn in both theatres. However, the type still had a role to play as a trainer and this resulted in a specialised version with all offensive weaponry removed bar the wing guns, the rearwards-facing turret

The prototype Mk.IX Beaufreighter was A9-201 (later renumbered A9-743) and first flew in this form on 4 February 1944. It was sold for scrap on 23 June 1951 although the engines and cockpit assembly were retained. (Peter Green)

replaced by a neat but somewhat unattractive fairing and dual controls fitted in the cockpit. The production line at Filton was closed after the completion of LS128 but another 250 Mk.IIAs were built at Bristol's Banwell factory and the last 121 of these,

using stock-piled parts, appeared as trainers. Some of Banwell's aircraft were converted to trainers on the production line and others from the 129 torpedo bombers completed were quickly modified to trainer standard. The decision to build a trainer Beaufort was made on 9 July 1943 and aircraft from ML599 onwards were built as such from the start. Maximum take-off weight for the Mk.II trainer was 18,000lb (8,165kg).

One hundred Beauforts also joined the Royal Navy's Fleet Air Arm, again serving as trainers. This service had a need for a limited amount of twin-engine training, which increased with the arrival of the Merlin-powered Beaufighter Mk.II, and the quantity of surplus Mk.IA Beauforts created



Australian Mk.IXs A9-728 and A9-738 seen using standard Beaufort spray bars for DDT chemical spraying trials in early 1947. At the time these aircraft were in the hands of the Aircraft Performance Unit. (Peter Green)

by a switch of emphasis from the traditional torpedo bomber to the strike-fighter meant that the type was offered to the FAA and accepted.

No. 798 Squadron was formed at Lee-on-Solent and received JM580, its first Beaufort, on 15 October 1943. During the following spring Mk.IIAs began to arrive which were near identical to the RAF examples with no armament apart from the wing guns.

A twin-engine conversion flight was also formed at Lee-on-Solent, which later became No. 762 Squadron and then the Twin-Engine Conversion Unit based at Dale. The adoption of the Sea Mosquito meant No. 762 became an even bigger unit and the Beaufort stayed with the UK FAA until March 1946, when it was replaced by the Mosquito T.Mk.III.

Rather more Beauforts joined the FAA overseas but these saw less service. In the Mediterranean the type was used on transport duties and on Fleet Requirements work. The latter comprised mock long-range torpedo attacks on warships at sea while, in the hands of No. 728 Squadron in Malta which received its first machines in October 1944, Beauforts were used for general training and reconnaissance tasks. UK-based instructors liked the aircraft but the Beaufort was not popular in the Mediterranean theatre. The



last Malta-based machines survived at No. 137 Maintenance Unit until about 1947.

Like many aircraft types the Beaufort was used for experimental work. In fact a large number of Beauforts were used between 1938 and 1946 by government establishments, aircraft and engine manufacturers and various other units. W6482 tested several of the alternative gun armament fittings for A&AEE while many types of anti-submarine and anti-ship weaponry (mines, torpedoes, bombs) were evaluated by the Torpedo Development Unit using Beauforts and Blackburn Bothas.

In collaboration with the Royal Aircraft Establishment and the Torpedo Training Unit, this work included the Toraplane

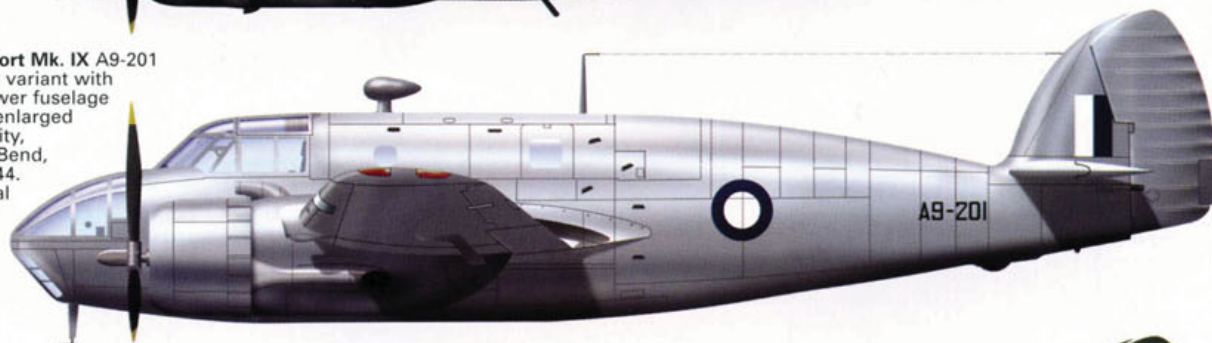
which was a standard 18in (45.7cm) diameter torpedo fitted with wings plus an extended air tail. It was hoped that the weapon could be launched from a height of 2,500ft (762m) while the aircraft was still up to three miles (4.8km) away from its target, and outside the range of flak, but accuracy was a real problem while the target itself would have plenty of time to steam out of the way. These trials lasted for three years and were finally abandoned on 15 October 1942.

N1174 was used on the first ASV radar trials while other Beauforts were used by the Telecommunications Flying Unit. A fiery piece of equipment tested by EK997 was the Aeroflame flame thrower, designed to deter

Bristol Beaufort Mk. IX Transport A9-712:R of No. 10 Local Air Supply Unit, Torokina, Bougainville, August 1945, engaged in efforts to convince isolated pockets of Japanese to surrender. Overall faded Foliage Green finish with crude white panels under the wings bearing the surrender message.

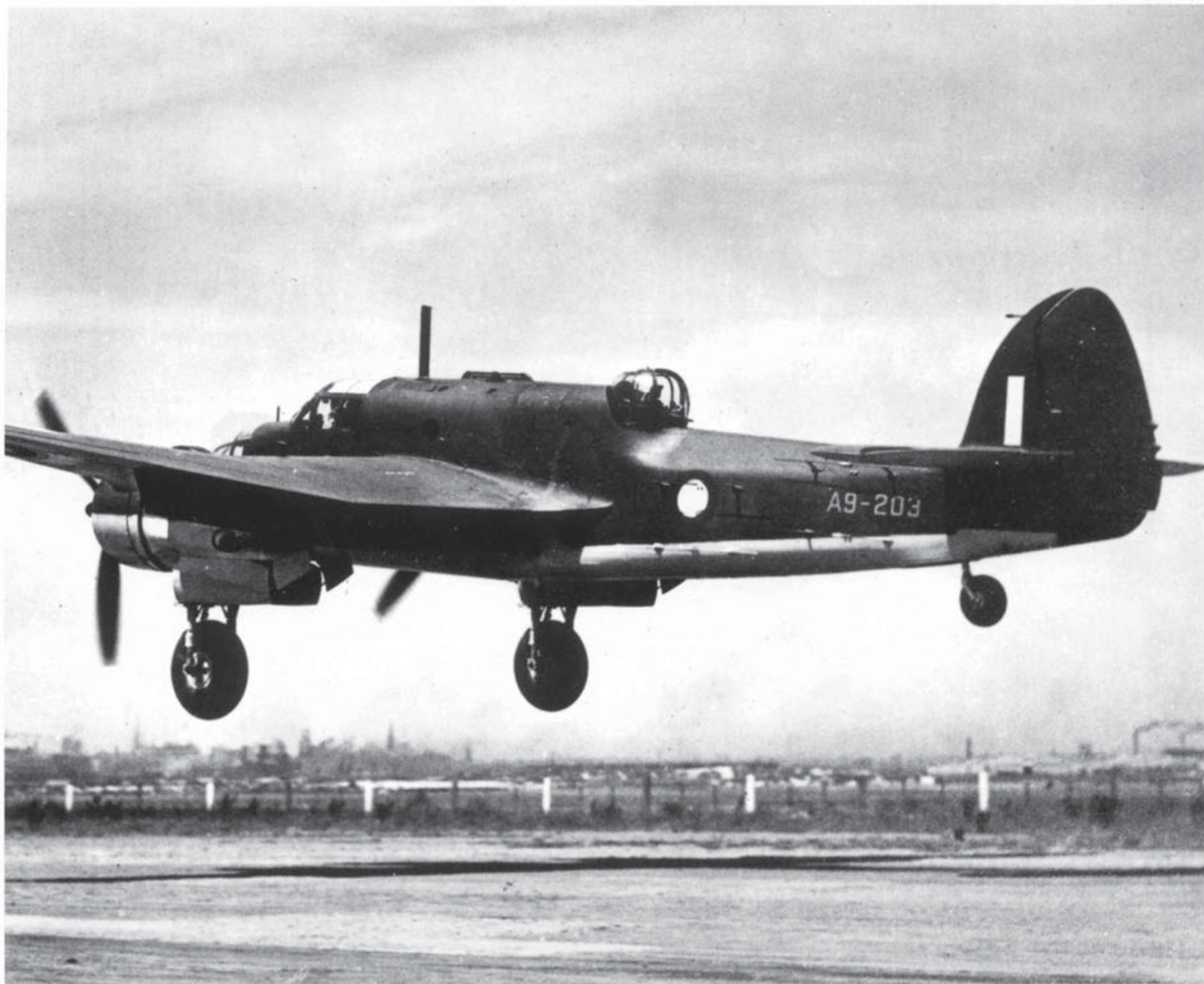


Bristol Beaufort Mk. IX A9-201 development variant with deepened lower fuselage containing an enlarged freight capacity, Fisherman's Bend, Australia, 1944. Overall natural metal finish.



Bristol Beaufort Mk. VI A9-71 of No. 1 Aircraft Performance Unit, RAAF, 1944. Used to test Air Special Gunnery Equipment housed in wood and canvas radome under nose. Overall Foliage Green finish.





A9-203 was a Beaufort Mk.VIII which served with No. 100 Squadron and was later converted to a Mk.IX freighter. (Peter Green)

attacks by enemy fighters. This had nozzles protruding from the torpedo bay which were fed with spirit from a tank housed in the bay that was ignited to produce a jet of flame. The flame was then aimed at the enemy to try and disturb his aim but the idea was not adopted.

Various Australian Beauforts were also used for trails. L4448 itself undertook general development work until July 1942, A9-123 was used for armament trials and A9-43 on propeller, weight-saving and armament testing.

One late-war front line Beaufort duty had been to spray DDT chemicals onto swarms of mosquito insects in forward areas using, initially, a 2ft 6in (76.2cm) long angled spray tube mounted in the bomb bay. Later more advanced spray systems were tested by Beauforts, some of which were adopted post-war to deal with swarms of insects that were threatening crops in Australia.

In early 1944 in Australia Mk.VI A9-71 was fitted with a large wood and canvas radome under its nose to test various gunnery equipment (including the Air Special Gunnery or ASG.1). In addition A9-269

became the 'Stripped Beaufort' and had all of its armament removed and a Mk.IX rear fuselage fairing fitted in an attempt to increase the aircraft's range when carrying a Mk.13 torpedo. Because it was defenceless and could not fly at night this version was not adopted but, flying at a weight of 20,500lb (9,299kg), its range was improved by seven per cent and rate of climb by 21 per cent.

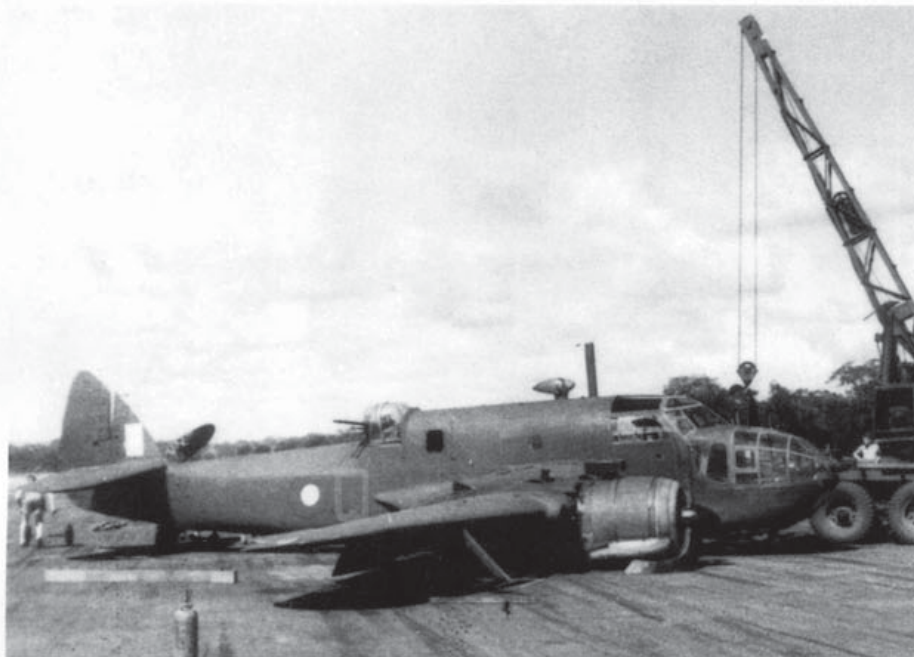
The last British-built Beaufort (Mk.IIA ML722) was delivered on 25 November 1944 to the Fleet Air Arm while the last Australian-built machine (a Mk.VIII) had

been delivered on the 6 September; however, deliveries of modified Mk.IX transport versions continued until 7 October 1945. A total of 1,519 Beauforts were produced in England and 710 in Australia.

From an RAF operational point of view, by 1943 the Beaufort was outdated and the Beaufighter, a type which could do all that the Beaufort could do and more, gradually took its place. In 1944 the RAF's Taurus-powered torpedo bomber Beaufort was declared obsolete, the Twin Wasp version followed in 1945 and the training aircraft in 1946. No Beauforts flew in the UK from



Turkish Air Force Beaufort Mk.IIA which appears to have been cannibalised for spares.



This Beaufort, possibly 'Q' of No. 22 Squadron (AW220), came to grief at Katukarunda in Ceylon in 1943. (Peter Green)

1946 and all RAF examples appear to have been Struck Off Charge by October that year. In Australia no official Beaufort flying took place after 1948 and a large number of survivors were Struck Off Charge in August 1949, although the last RAAF reserve examples were not sold for scrap until February 1953. The last Beauforts to fly anywhere in the world were probably those in Turkish hands and they completed their flying careers in 1950.

IN CONCLUSION

From an operational point of view the Bristol Beaufort was excellent and served in

every continent bar South America. It was particularly active around the coastal regions of Northern Europe and took part in many operations in the South West Pacific but, perhaps most important of all, it proved to be a key element in the Allies victory in North Africa. In fact the author of *The Beaufort File* published in 1990, Roger Hayward, described the Beaufort as 'indispensable to victory in North Africa' and added that the aircraft 'deserves to be better known and its contribution to the Allied cause more widely appreciated'. Fourteen years later this situation is probably no different, so hopefully this book will do a little more to address the balance. Those crews

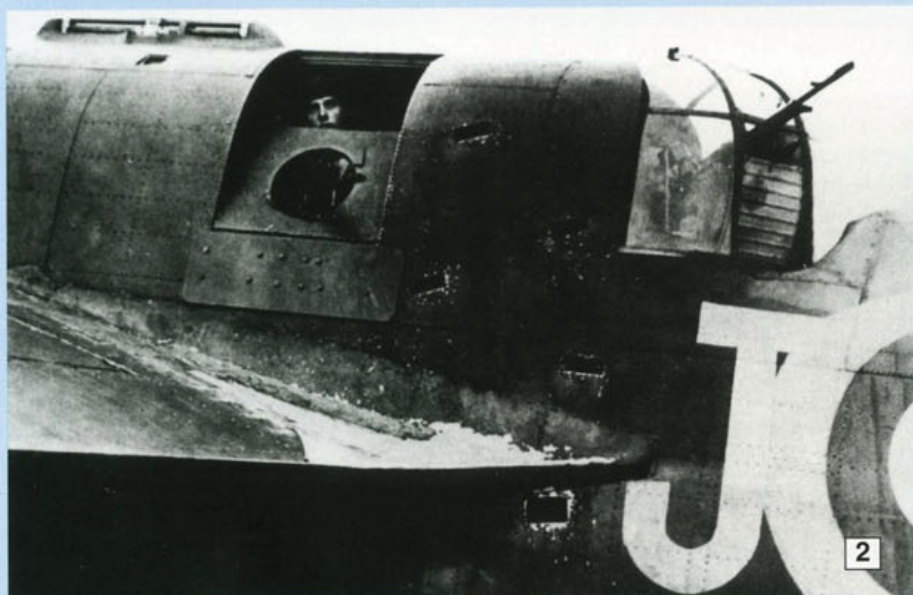
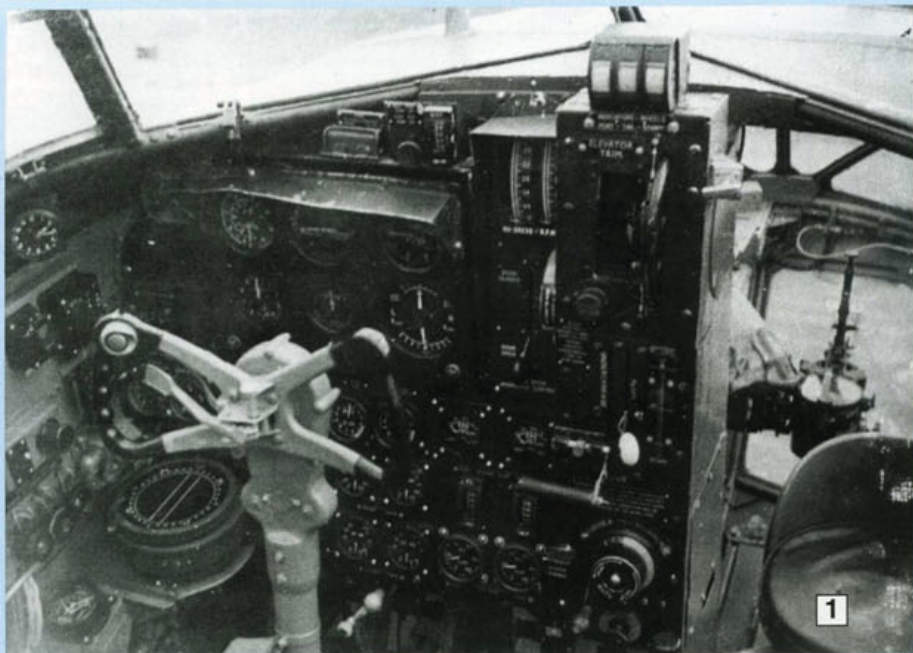
that fought in it 'swore by it and its inherent strength' but aircrew who only trained on the type before progressing to faster and more capable later generation aircraft were generally less impressed. Gradually, from 1943 the type was replaced by the torpedo bomber variant of the Beaufighter (the 'Torbeau') but the Beaufort was indeed a most successful torpedo bomber and contributed much to victory in World War 2; it should not be forgotten.

Hopefully some preserved examples will help. At the start of the 1990s no complete Beauforts were known to exist but, since then, the restoration of several examples found in Australia, or recovered from New Guinea and other 'Beaufort war zones', has helped to fill this gap. In 1992 the RAF Museum at Hendon put 'DD931' on display, a near complete Beaufort primarily assembled from the forward fuselage of A9-557, rear fuselage of A9-559, tail section A9-478 and wing centre section A9-593. On display at the Flypast Museum of Australian Army Flying at Oakey in Queensland is the incomplete and part restored airframe of A9-13 together with A9-210's nose section, while another composite airframe (A9-557's fuselage plus the nose of A9-461 and tail section of A9-637 or A9-639) is in store in Canberra, Australia. The latter, owned by the Australian War Memorial, is not fully restored but was put on display for a brief

Continued on page 40

Beaufort terrain. An unidentified aircraft flies over what appears to be a British merchant ship. (Jim Oughton)





Bristol

IN DETAIL Photographs from the





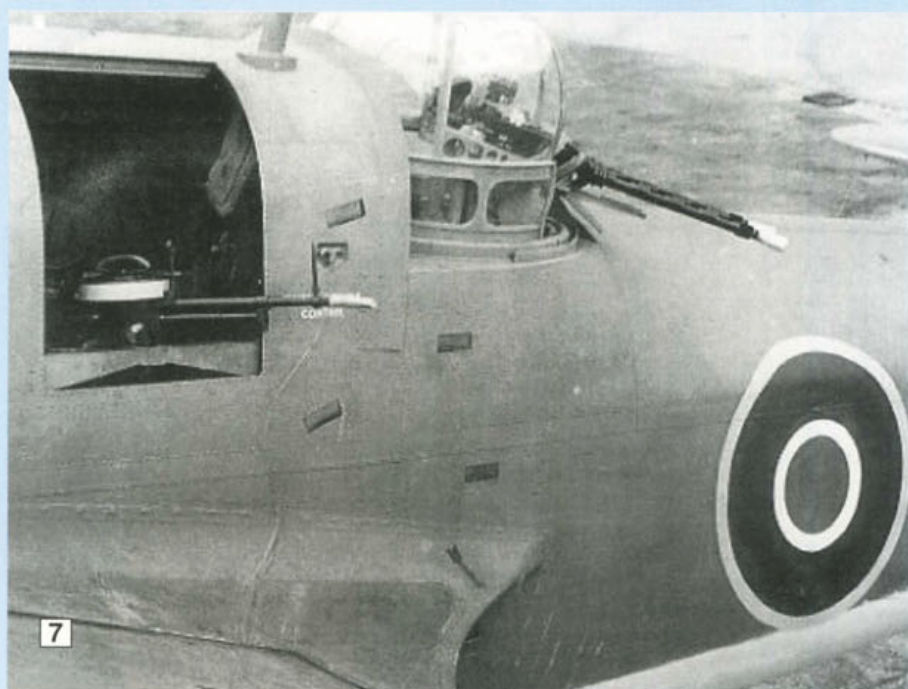
BEAUFORT

Author's and Peter Green's archives



6

1. Pilot's cockpit detail. 2. The original single gun turret and the additional beam gun position. 3. Nose section of A9-703. Note damaged windscreen. 4. Beaufort I N1182 of 39 Squadron, with crew. 5. L9875, at Malta on 18 September 1941, shows cockpit detail and the trailing edge semi-circular plates fitted to deal with air turbulence over the upper wings. 6. Cabin walkway looking towards the nose. 7. Centre fuselage and rear-facing defensive guns. (Peter Green)



7



Top: Loading a torpedo into the bomb bay of a Maltese based Beaufort of No.39 Squadron. The bomb bay doors had to be left ajar as the torpedo could not be fitted entirely inside the bomb bay. (R.J.Carwana collection) Above: A Beaufort Mk.I at Luqa in 1942. The nose guns can be seen. In the foreground can be seen the locally quarried limestone blocks used to make revetments for shelter against German bombing (G.R. Pitchfork via Peter Green)

Continued from page 37

period during 2003. There are also two current Beaufort projects which will hopefully lead to aircraft restored to flying condition. The first is A9-141 'VH-KTW' at Hendra, Brisbane, Australia which includes the rear fuselage of A9-689 and stern section of A9-485, the second is A9-555 who's restoration began at Clifton, Tennessee, in America in 2003.

Bristol Beaufort kits and accessories

Scale Kits	Version	Manufacturer	Reference	Remarks
1:72	Beaufort Mk.VIII	High Planes	HPM7204	Complete kit
1:72	Beaufreighter	High Planes	HPM7206	Complete kit
1:72	Beaufort Mk.I	High Planes	HPM7227	RAF Taurus engines
1:72	Beaufort Mk.I	High Planes	HPM7228	SEAC Taurus engines
1:72	Beaufort Mk.II	High Planes	HPM7230	P & W engines
1:72	Beaufort Mk.I	High Planes	HPM7253	SAAF + 2 RAF
1:72	Beaufort Mk.VIII	High Planes	HPM7254	Complete kit
1:72	Beaufort Mk.I	Special Hobby	SH7226	Complete kit
1:72	Beaufort Mk.I	Encore	EE1009	Ex-Frog
1:72	Beaufort Mk.VIII	Encore	EE1010	Ex-Frog
1:72	Beaufort	Frog	FROGF229	Complete kit
1:72	Beaufort	Novo	NOV229	Ex-Frog
1:72	Beaufort	Premier	PIP4001	Ex-Frog RAF markings
1:72	Beaufort	Premier	PIP4002	Ex-Frog RAAF markings
1:72	Beaufort	Tasman	TNUG2004	Ex-Frog. Extra parts
1:48	Beaufort Mk.I	Contrail/Sanger	CON402	Vacuform kit
1:32	Beaufort Mk.I	ID Models	ID3245	Vacuform kit
Accessories				
1:72	Beaufort Mk.I	Aeroclub	ABE084	Taurus engine and cowling
1:72	Beaufort	True details	TD72015	Weighted wheels
Decals				
1:72	Beaufort Mk.I	Dutch Decals	DDK7207	Sheet has 2 Beauforts

Bristol Beaufort Mk. VIII A9-338
of 1 OTU East Sale, Victoria,
Australia 1943. Overall
Black Green finish with
large codes in yellow.
Serial numbers in
Medium Grey.



A9-500
Nose motif
"Barmera
Waikerie"



Mission tallies for raids
and supply missions
beneath cockpit



Bristol Beaufort Mk. VIII A9-500:W-DD
of No 15 Squadron
RAAF, Middleburg
Island, New
Guinea, 30 September 1945. Overall Foliage
Green finish with codes in white. Serial
numbers in Medium Grey. Wing shackles
carry two 250lb bombs.

A9-75 'Tweedle Dum
and Tweedle Dee'
nose motif



Bristol Beaufort Mk. VI A9-75:G of 6 OTU, Nowra,
New South Wales,
Australia, November
1943. Type A finish
of Foliage Green
and Earth
Brown
over Sky
Blue lower
surfaces. Codes
in white. Serial
numbers in
Medium Grey.

A9-632 'Snow
Goose' motif and
mission tally
on nose



Bristol Beaufort Mk. VIII A9-632:T-DD of No. 15 Squadron
RAAF, Middleburg Island, New
Guinea, September 1945.
Overall Foliage Green
finish with codes in white.
Serial numbers in
Medium Grey. Note
ASV under wing
and fuselage.

A9-432 'Hallelujah Brothers!
We are saved' motif on nose
below windscreen



Bristol Beaufort Mk VIII A9-432:T-JM of No.
100 Squadron RAAF, Tadj, New Guinea,
November 1945. Type A finish of Foliage
Green and Earth Brown over Sky Blue with
roughly applied black overpainting for night
operations. Codes in white and serial
numbers in Medium Grey.
Wing shackles carry
supply containers or
'Storpedos'.



Above: Two RAF St.Eval based Beauforts of No.217 Squadron, N1173:MW-E and AW242:MW-B on patrol in January 1942. Left: One of the Malta-based Beaufort Mk.IIs of No.39 Squadron in its revetment made of stone blocks on Luqa airfield. It is interesting to see how close aircraft were parked to Luqa parish church. Below left: A Beaufort Mk.I coded MW:S of No.217 Squadron readies for take-off. (IWM)



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