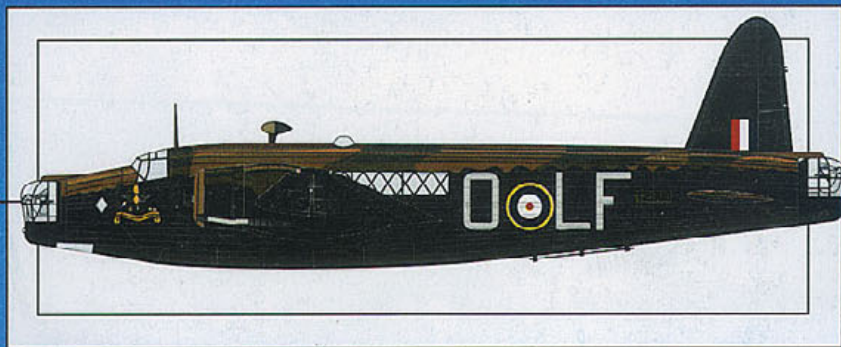




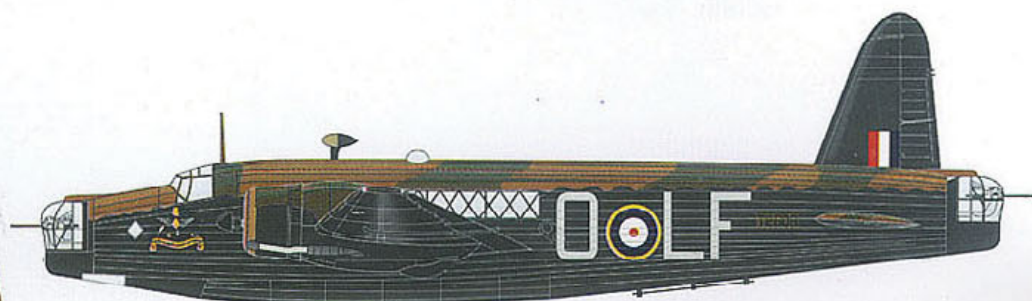
WARPAINT SERIES No. 10

VICKERS WELLINGTON

BY ALAN W. HALL

Ground crew of No. 419 Squadron bomb-
ing up a Wellington Mk. III at RAF
Mildenhall on 27 May 1942. The bomb
itself is a 4,000lb 'Cookie' blast weapon
the first of which was dropped on a
German target by a Wellington. No 419
Squadron was the third Canadian-crewed
unit to join Bomber Command. (IWM)

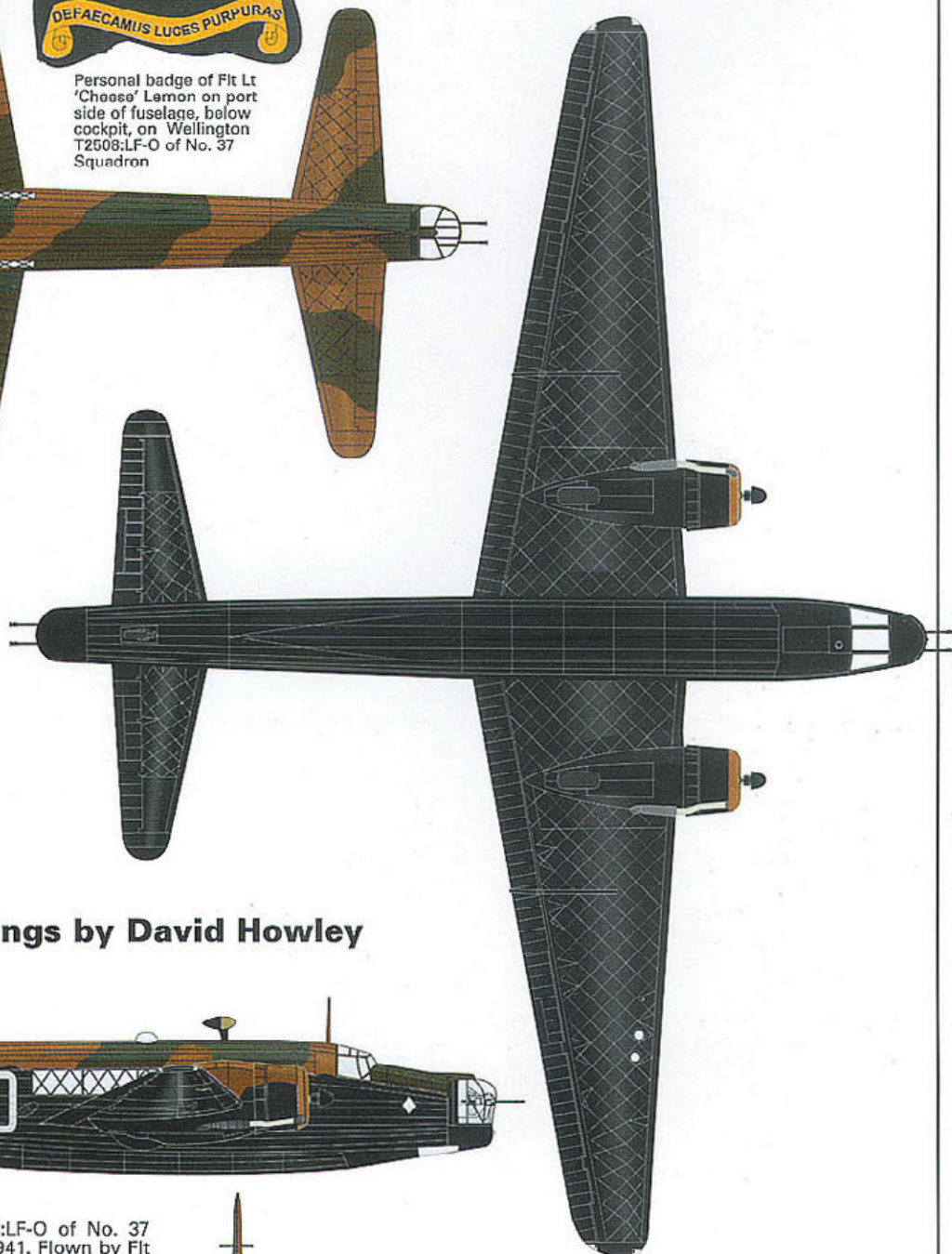
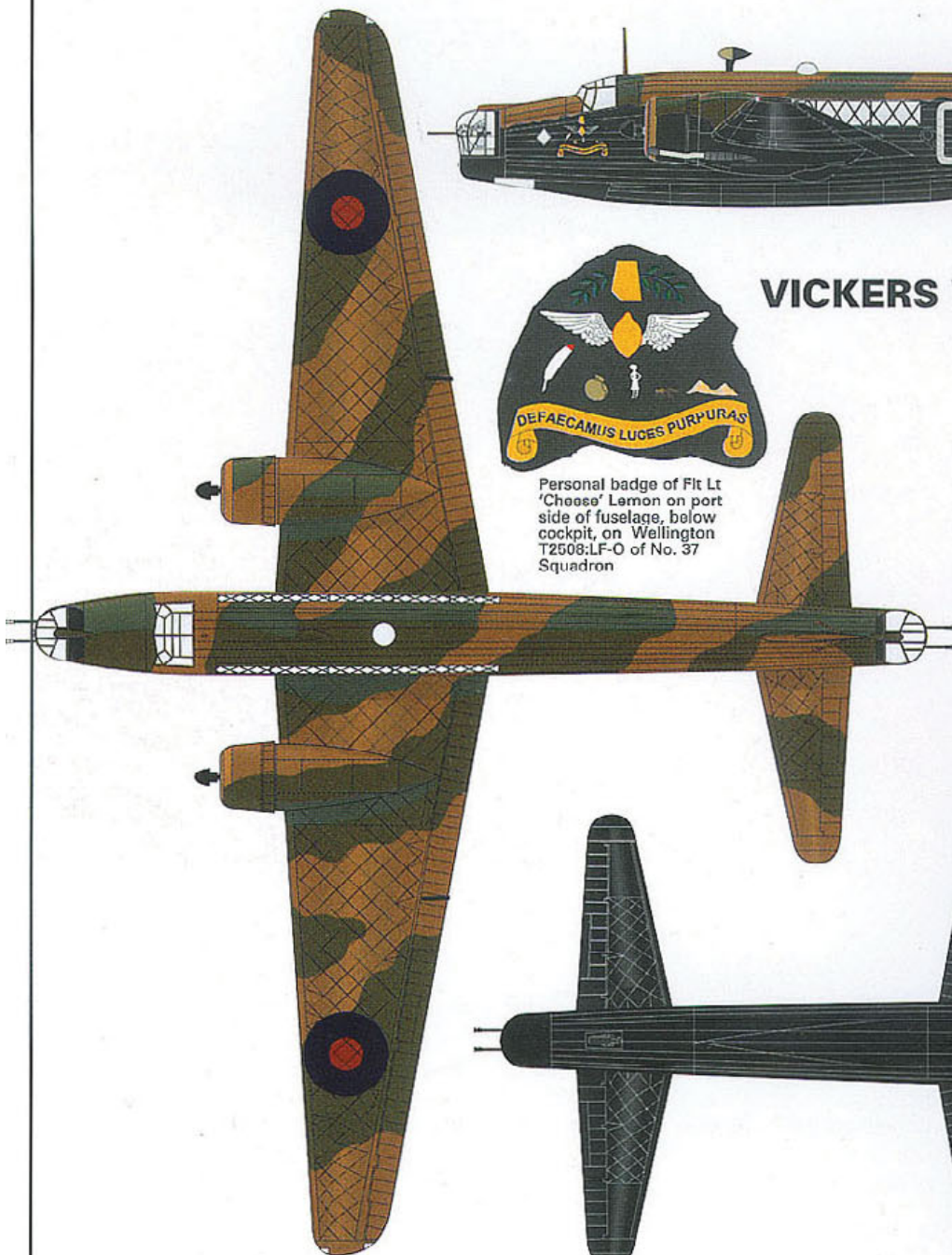




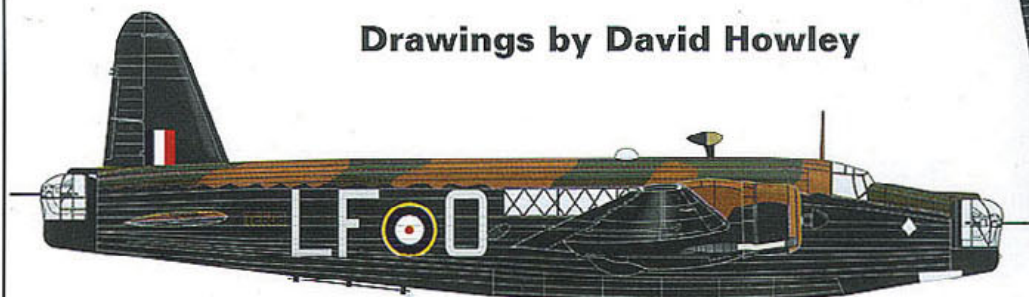
VICKERS WELLINGTON Mk.1c



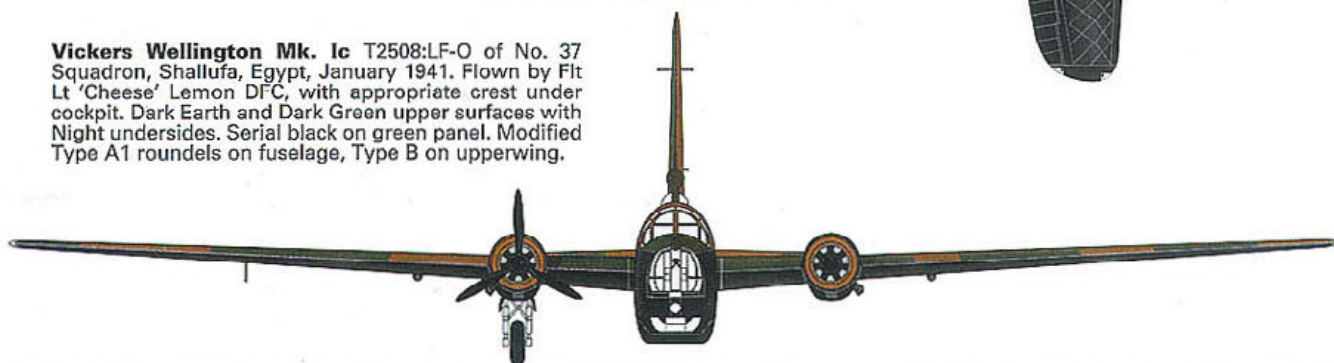
Personal badge of Fit Lt
'Cheese' Lemon on port
side of fuselage, below
cockpit, on Wellington
T2508:LF-O of No. 37
Squadron



Drawings by David Howley



Vickers Wellington Mk. 1c T2508:LF-O of No. 37
Squadron, Shallufa, Egypt, January 1941. Flown by Fit
Lt 'Cheese' Lemon DFC, with appropriate crest under
cockpit. Dark Earth and Dark Green upper surfaces with
Night undersides. Serial black on green panel. Modified
Type A1 roundels on fuselage, Type B on upperwing.



Vickers WELLINGTON



By Alan W. Hall

THE Vickers Wellington was one of those aircraft that seemed to go on for ever. In spite of the glamour and publicity gained by the Lancaster and Halifax, Wellingtons flew operationally for much longer during World War 2 and were still in widespread use for some considerable time afterwards as trainer aircraft, both for pilots of multi-engined aircraft and as crew trainers.

Wellingtons served in Bomber, Coastal and Flying Training Commands, adopted civil markings post-war and were invaluable platforms for a number of engine and airframe modifications that required air testing.

When production finally ceased there had been 11,461 Wellingtons built, making it one of the most prolific bombers of World War 2. It is therefore surprising that only one Mk. X trainer still exists apart from the remains of a Mk. I that was raised from Loch Ness, Scotland in September 1985, and at the time of writing, was almost completely re-built by enthusiasts at Brooklands Museum.

CONCEPTION

Design of the Wellington began in October 1932 when Vickers tendered for Air Ministry Specification B.9/32 which called for a twin-engined medium day bomber. The company had previously had a lot of experience in building this sort of aircraft and the geodetic system of construction had previ-

The Wellington prototype K4049 first flew on 15 June 1936. Its geodetic construction was almost unique although the Wellesley had a similar type of fuselage and wings at about the same time. The aircraft crashed on 19 April 1937 when the tail broke off.

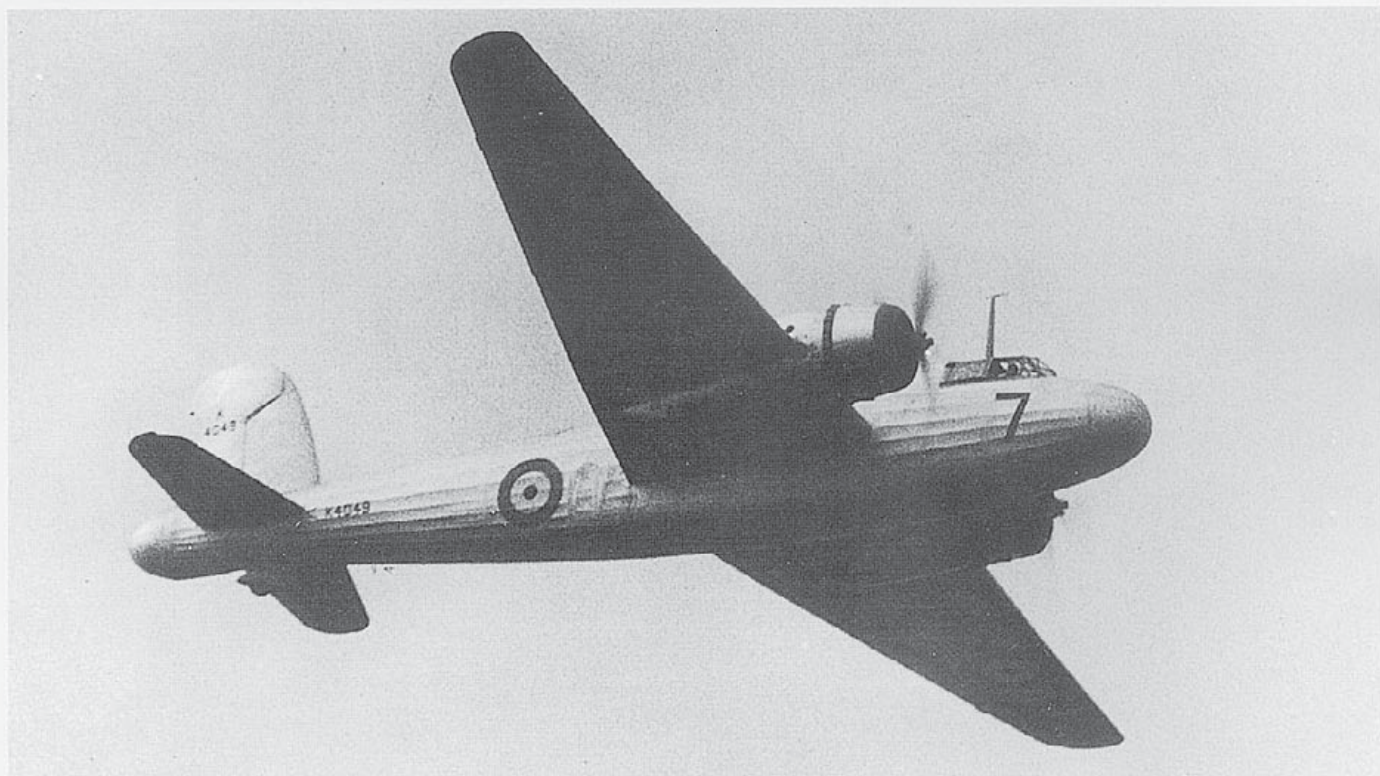
ously been tried out on the Vickers Wellesley, a single-engined day bomber which was at that time in service. This aircraft was the first to have geodetic construction which provided a unique method of manufacture that was both strong and robust - a virtue thought necessary for bomber construction. The fact that this remained true throughout the Wellington's long service life is a great testimonial to those who drew up the original design conception.

The idea behind the lattice-like frame work of geodetic construction was devised by Barnes Wallis, then Vickers' chief structures designer. It was he who led the project, based on his earlier work in airship construction, together with Vickers' chief designer R. K. Pierson. Their work on the earlier Wellesley and the structural testing

Vickers Wellington Mk. III Z1572:VR-Q seen in the colours of No. 419 (Moose) Squadron, RCAF in May 1942 when based at Mildenhall. (RAF Museum)

that had been carried out on that airframe were applied to the much larger Wellington. Both designers knew that if the same principles were applied to a twin-engined derivative, the strength of the aircraft was guaranteed albeit it that the methods themselves imparted no weight penalty which was thought possible when the ideas were first put forward. The full weight of bombs and defensive armament could be carried in spite of the rather complex structure. Up until that time the Royal Air Force had depended on biplane bombers such as the Overstrand and Heyford, the Wellington brought in entirely new concepts with streamlined shapes, fore





The prototype Wellington differed considerably from the production version. Only the wings, engines, cockpit and tailplanes were similar though the basic construction followed geodetic principles. (IWM)

and aft turrets, twin radial engines and a single fin and rudder.

Outmoded thinking by the Air Ministry, which demanded that the tare weight of the aeroplane as laid down in the Specification should be adhered to, an obligation that restricted the designer by limiting the structural weight and hence the weight and power of the engines, was overcome. The Vickers team circumvented this restriction and the tare weight of the Wellington rose from 6,300 to 11,508 lbs between the time the tender was first submitted and the date on which the prototype first flew in 1936.

With a rapid rearmament programme under way the designs of bomber aircraft at that time were advanced for their day and types such as the Hampden and Whitley were produced at the same time as the Wellington thus allowing the United Kingdom to go to war with a respectable bomber force at least comparable in performance if not in quantity to their opposite numbers in the Luftwaffe.

An initial order for 180 Wellingtons was placed in August 1936. This was almost immediately supplemented by a sub-contract with the Gloster Aircraft Company for 100 Mk. Is followed by another for the Mk. II which had Rolls Royce Merlins instead of the original Bristol Pegasus engines as the power plant. A little later orders went out to Armstrong Whitworth of Coventry for 64 Wellingtons but these were transferred to Chester and Blackpool when the system of shadow factories for aircraft production was

originated shortly after war began.

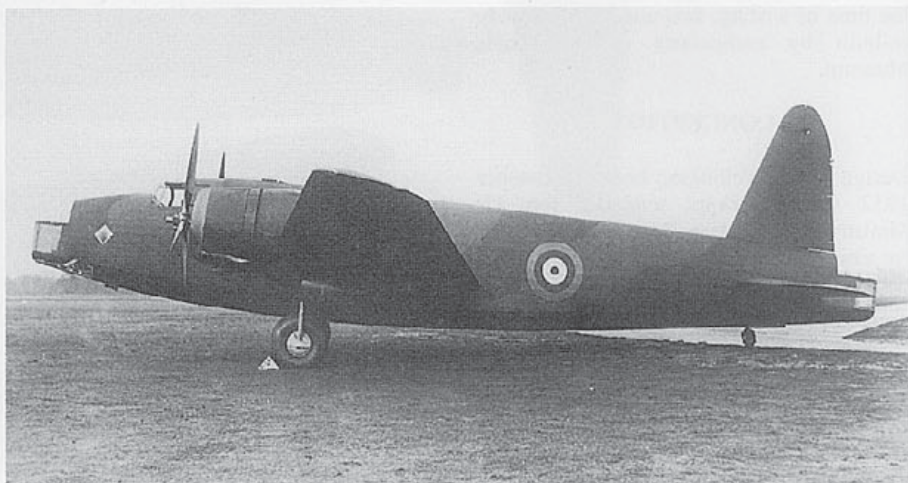
ALTERATIONS

The first flight of the B.9/32 prototype took place from Vickers' Brooklands aerodrome on 15 June 1936 flown by Mutt Summers and accompanied by Barnes Wallis. Powered by two 915 hp Bristol Pegasus engines it was serialised K4049 and looked considerably different from the Wellingtons that were to follow it on the production line. Unlike these it sported a retractable mid-upper turret but had single Vickers K guns in the nose and tail. Provision was similarly made for an underslung dustbin turret also carrying a single Vickers machine gun like the Handley Page Heyford, then in squadron service.

Flying trials proved beyond doubt that the B.9/32 was all that its designers had predicted. Before these could be completed, however, the aircraft suffered an accident in which the flight engineer was killed but the pilot survived. Meanwhile plans for production were being laid and revisions made to the original design in the light of experience and the requirements of additional arma-

ment. Vickers were already known for their production of turrets and the .303 machine gun. These in combination were offered to the Air Ministry for the Wellington's armament but although accepted on the initial production aircraft were later replaced by turrets of a Frazer Nash design which were power operated and contained two Browning machine guns in each. The mid-upper turret was deleted but the ventral one was still incorporated though this too was deleted once production was under way.

A new Specification, B.29/36, was issued for the production of the Wellington Mk. I. This differed in shape from the original and the first of the series, L4212, was flown by Summers on 23 December 1937. In this the crew had been increased by one, to make five in all, and the nose lengthened to accommodate a bomb aimer's position under the front turret. The waisting of the fuselage in the original prototype was done away with which gave the aircraft a deeper rear end, and the tailplane was lifted some six inches. A retractable tailwheel was fitted and constant speed propellers drove the twin Pegasus XVIII engines which by that time had become standard for the type.



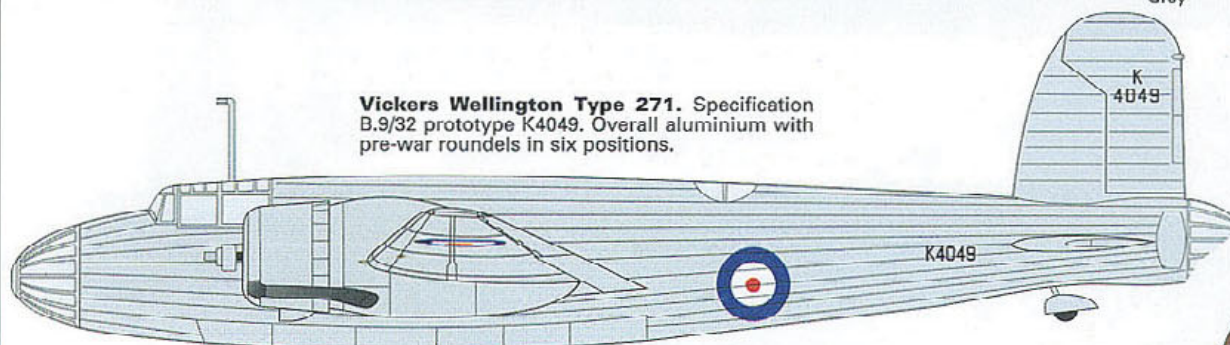
The first production Wellington L4212. This aircraft did not enter squadron service spending all of its life at research establishments. It also acted as the prototype for the DWI anti-magnetic mine version and was used by both Nos. 2 and 3 GRUs. (IWM)

Vickers Wellington camouflage and markings

Drawings by David Howley

VICKERS WELLINGTON COLOUR KEY

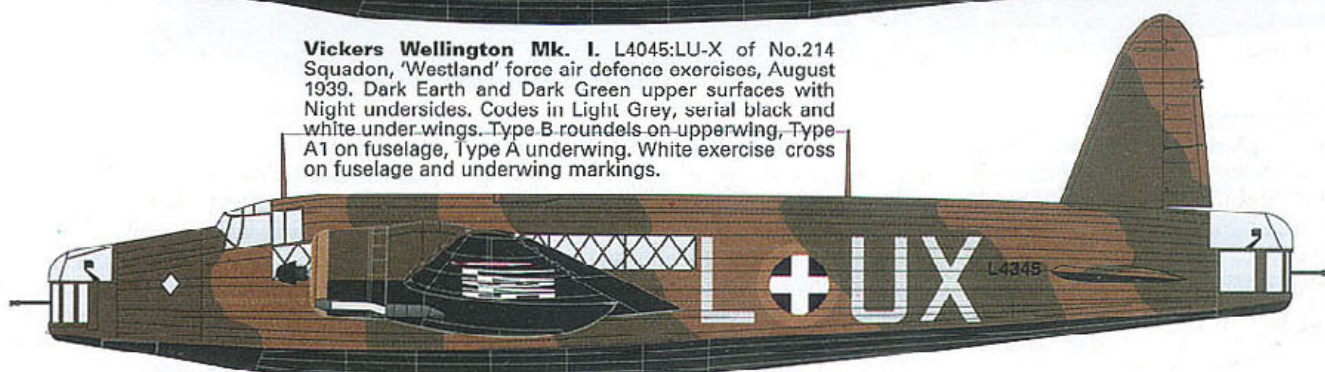
											
Black	White	Yellow	Roundel Red	Roundel Blue	Dark Green	Dark Earth	Extra Dark Sea Grey	Dark Slate Grey	Natural Metal	Aluminium	Medium Sea Grey



Vickers Wellington Type 271. Specification B.9/32 prototype K4049. Overall aluminium with pre-war roundels in six positions.



Vickers Wellington Mk. I. L4304:ZN-BS of No. 148 Squadron, winter 1938-39. Dark Earth and Dark Green uppersurfaces with Night undersides. Codes in Light Grey, serial black and white under wings. Type B roundels on upperwing, A1 on fuselage modified to Type B.



Vickers Wellington Mk. I. L4045:LU-X of No. 214 Squadron, 'Westland' force air defence exercises, August 1939. Dark Earth and Dark Green upper surfaces with Night undersides. Codes in Light Grey, serial black and white under wings. Type B roundels on upperwing, Type A1 on fuselage, Type A underwing. White exercise cross on fuselage and underwing markings.

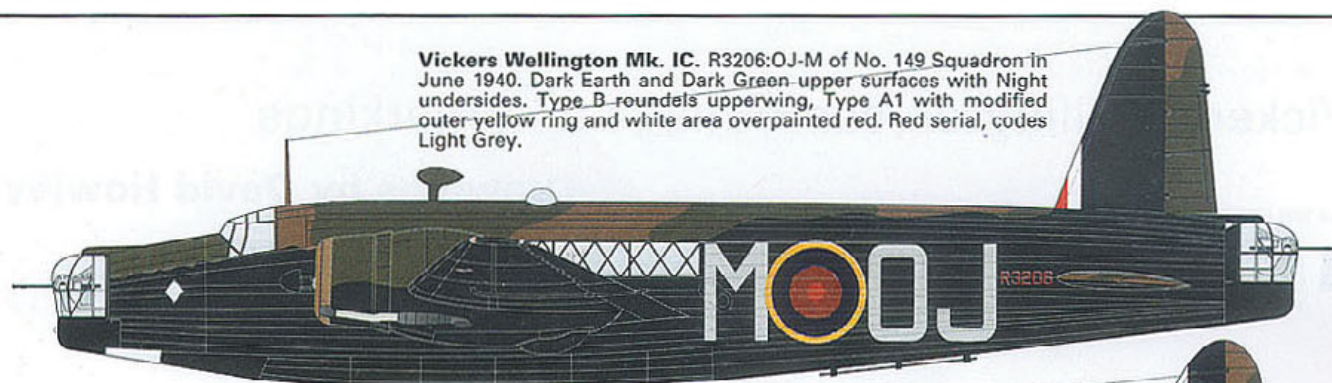


Vickers Wellington Mk. I L4387:LG-L of No. 215 Squadron, Wick, Scotland, April 1940. Detached to Coastal Command for daylight reconnaissance of Narvik. Dark Earth and Dark Green uppersurfaces, Night undersides. Codes in Light Grey, serial black. Type B roundels upperwing, Type A underwing and fuselage sides.



Vickers Wellington Mk. IA. N2873:WS-B of No. 9 Squadron, Honington, December 1939. Flown by Sgt Frank Petts. Dark Earth and Dark Green uppersurfaces, Night undersides. Type B roundels upperwing, Type A underwing, Type A1 on fuselage sides. Light Grey codes, serial black.

Vickers Wellington Mk. IC. R3206:OJ-M of No. 149 Squadron in June 1940. Dark Earth and Dark Green upper surfaces with Night undersides. Type B roundels upperwing, Type A1 with modified outer yellow ring and white area overpainted red. Red serial, codes Light Grey.



Vickers Wellington Mk. IA N2912:LG-G of No. 11 OTU, Bassingbourn, summer 1940. Formed from No. 215 Squadron and still bearing their codes. Dark Earth and Dark Green upper surfaces with night undersides. Light Grey codes, Black serial. Type B roundels overwing, Type A underwing and Type A1 on fuselage sides.



Vickers Wellington Mk. II W5461:EP-R of No. 104 Squadron, early 1941. Dark Earth and Dark Green upper surfaces and Night undersides. Light Grey codes, Red serial. Type B roundels overwing, Type A1 on fuselage sides.



A number of different versions of the basic Mk.I airframe were produced including the Mk. IA which was to be the same as the projected Mk. II as far as the airframe was concerned and to have the facility of being able to interchange either the Merlin or the Pegasus, though in practise this was not done. The wheels were increased in diameter to allow for a 28,000 lb all-up-weight and the undercarriage moved forward some three inches to adjust the centre of gravity. The Mk. IB was to all intents and purposes the same as the Mk. IA but had the turrets defined as Frazer Nash standards together with the deletion of the ventral turret.

For the Wellington Mk. IC, a new hydraulic system was fitted together with a 24 volt electrical system. The most significant external change in this variant was, however, the fitting of beam guns - a single .303 both sides in the midships position to overcome, in part, the deletion of the ventral unit. The Mk. IC became the standard by 1940 and eventually some 2,685 were built.

SQUADRON SERVICE

The first RAF unit to be equipped with the Wellington was No. 99 Squadron based at Mildenhall which received its first aircraft on 10 October 1938. Nine more squadrons including Nos. 38, 149, 9, 148, 115, 37, 75,

No. 9 Squadron was the fourth to receive Wellingtons, the first arriving in January 1939. These aircraft took part in a nine aircraft formation that flew to Evere, Belgium on 9 July 1939 for the 25th anniversary of the Aeronautique Militaire. (RAF Museum)

214 and 215 in chronological order, were to have them in use by the start of the war in September 1939. Eight Wellington squadrons comprised the total strength of No. 3 Group, Bomber Command, while the other two, Nos. 75 and 148 were Group pool units within No. 6 Group.

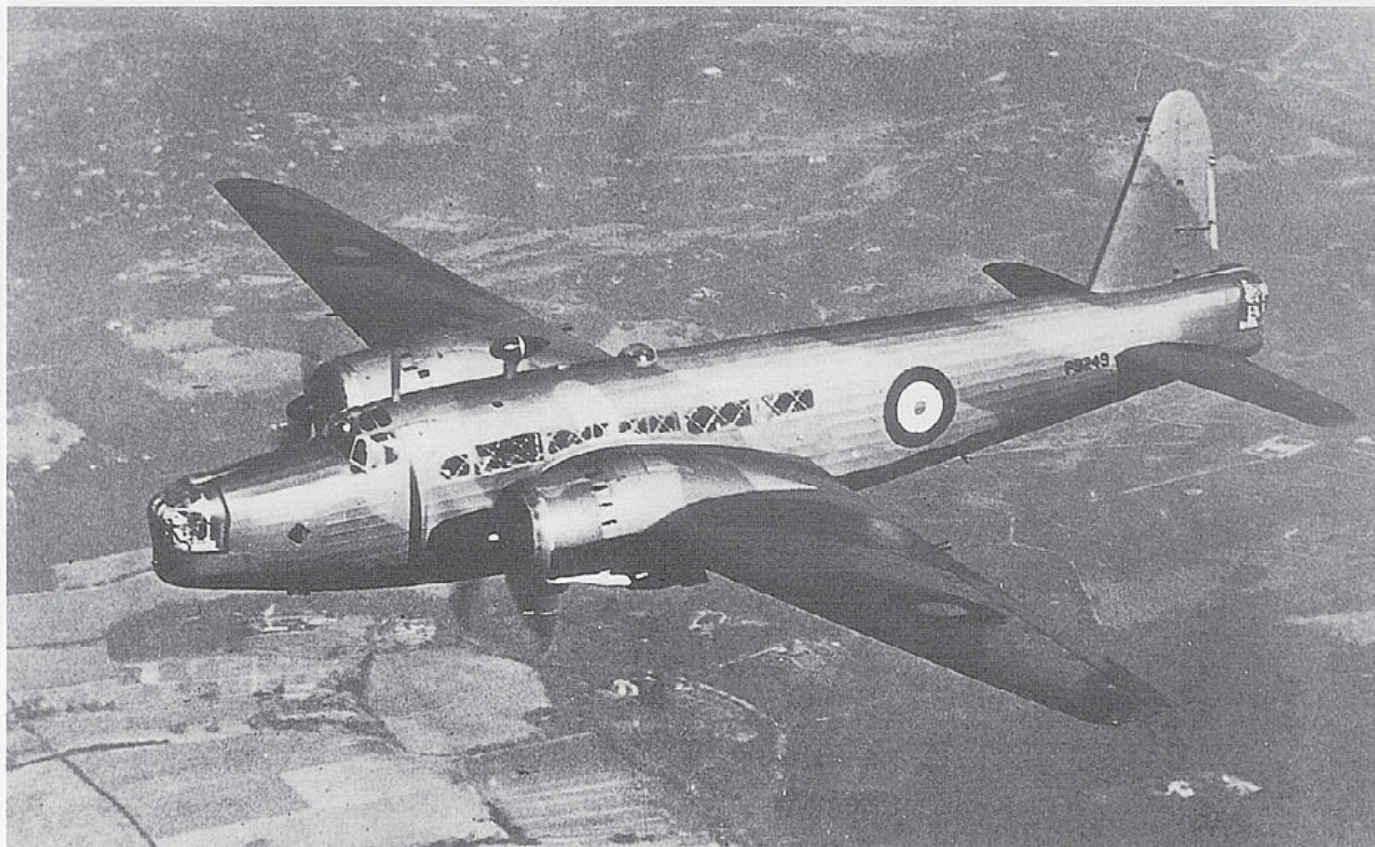
Wellingtons conducted the first large scale operational sorties of the war on behalf of the RAF. On 4 September 1939, 14 Wellingtons from Nos. 9 and 149 Squadrons attacked enemy warships off Brunsbuttel in an abortive raid in which most aircraft failed to find the target. Those that did were to see that their bombs were mostly ineffective against the shipping they attacked.

Another anti-shipping strike was made on 3 December in which 24 Wellingtons from

Nos. 38, 115 and 147 Squadrons were dispatched to hit German warships moored in the Heligoland Bight. They attempted to bomb from high level in and out of cloud and again the results were far from satisfactory. With neither side gaining much advantage the Bomber Command planners decided that daylight raids would be continued so a further force was despatched on 14 December in which 12 Wellingtons of No. 99 Squadron were sent to the same area to hit targets at low-level near Wilhelmshaven in the Schilling Roads.

This raid was a complete disaster as it transformed the Air Ministry's thinking on the subject of daylight raids. Determined opposition from the ship's anti-aircraft guns and then meeting a large formation of





Weybridge-built Wellington Mk. IC P9249 one of 50 delivered early in 1940. Note the early style of camouflage, Night being confined to the undersides.

Messerschmitt Bf 109 fighters meant that five out of the 12 were shot down and another crash landed on return to the UK through enemy action. The Wellingtons had held close formation and at least one enemy fighter fell to their guns.

One more attempt was made to operate in daylight and this time the same target in the Schilling Roads was selected. On 18 December, four days after the previously unsuccessful raid, 24 Wellingtons of Nos. 9, 37 and 149 Squadrons set out but were detected by enemy radar and Luftwaffe fighters intercepted them off Heligoland. No less than 12 bombers were destroyed for a loss of four enemy aircraft. As the warships had by then entered port and the chances of hitting civilian targets close by was very real, the bombers were not allowed to release their loads over enemy territory. Most bombs were jettisoned in order to gain height and cloud cover as the Luftwaffe fighters maintained their attacks until the Wellingtons had returned to within 80 miles of their home airfields.

This final raid marked the end of unescorted daylight raids by Bomber Command until the final stages of the war and instead night bombing techniques were developed in which the Wellington featured strongly. In the beginning they were used on leaflet raids which built up operational capability and experience but did little else. It was also discovered that when bombs were dropped few, if any, hit the right target.

Right: Wellington Mk. IC R1448:HA-L of No. 218 Squadron when based at Marham in 1940. The aircraft eventually crashed after a mid-air fire at Elgin in August 1942 whilst serving with No. 20 OTU. (IWM)

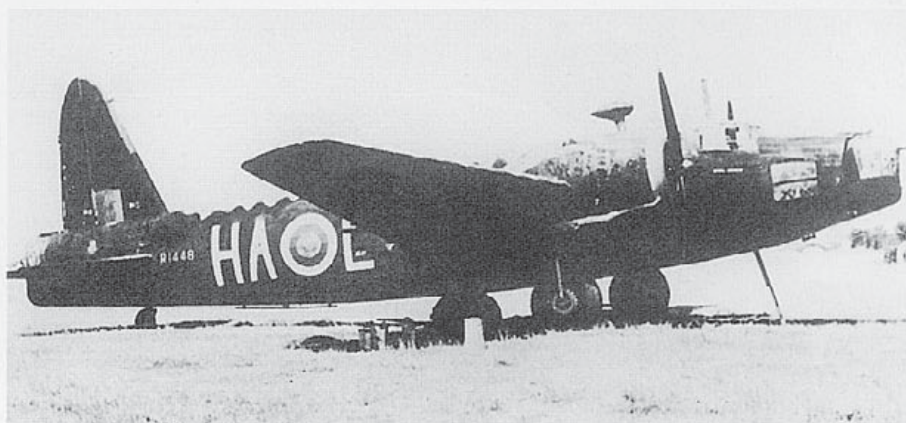
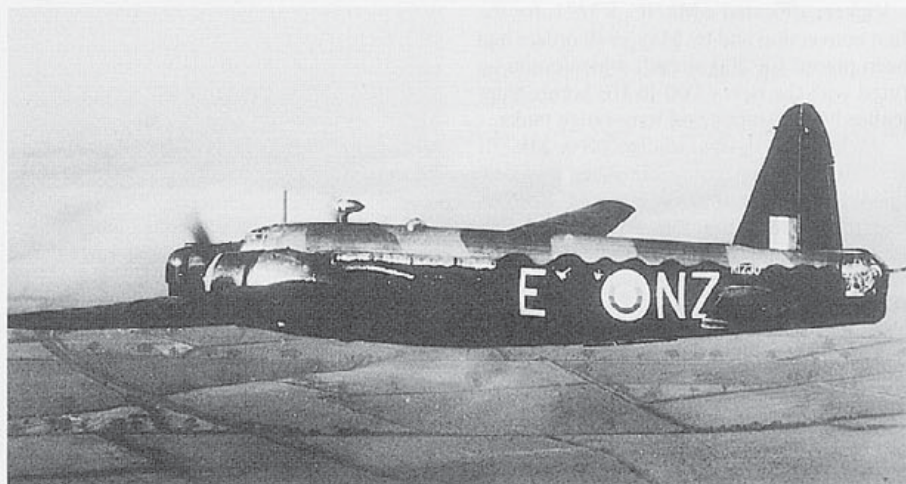
MERLIN ENGINES

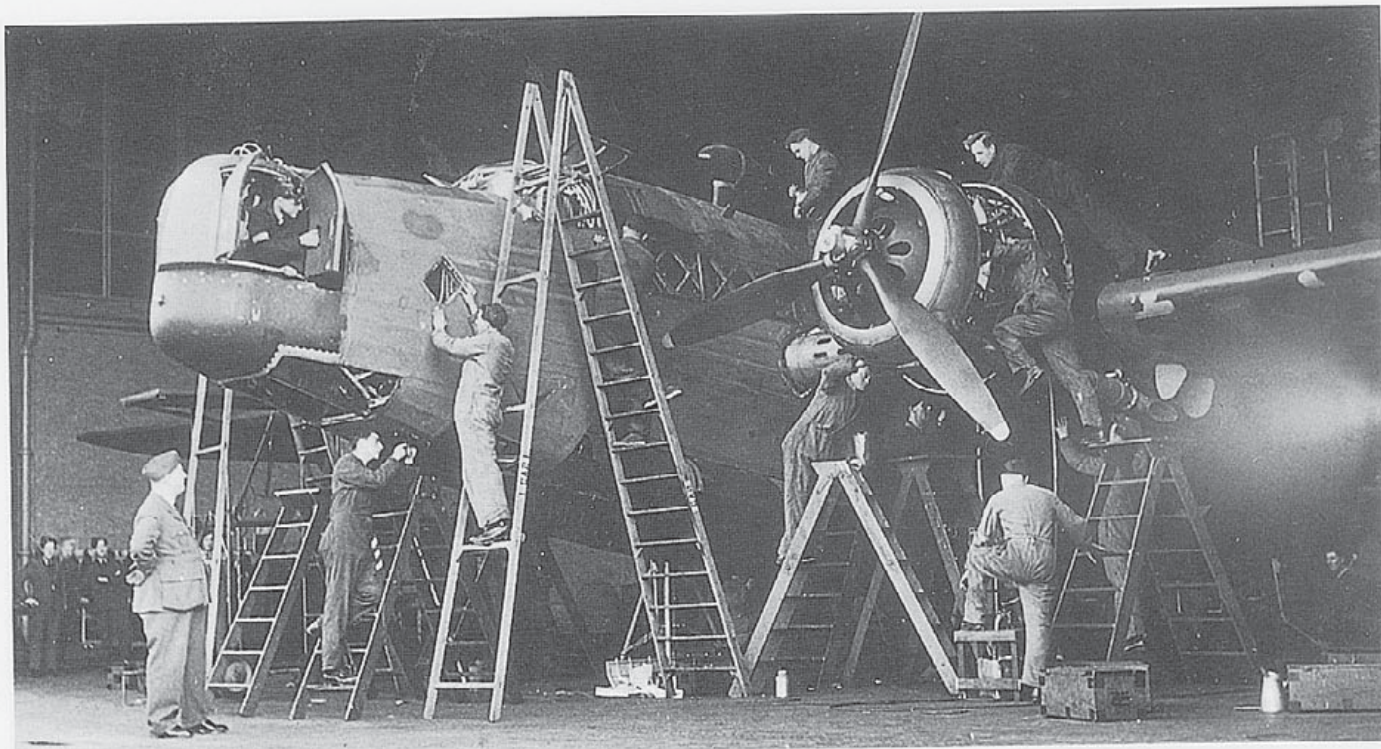
Right from the original conception of the Wellington the Rolls Royce Merlin engine was considered as the alternative power plant with interchangeability in mounting being recognised at an early stage. Apart from the engines, the Wellington Mk. II, as it was designated, had a wider chord

tailplane to account for certain instability in handling and was the first version to be fitted with an astrodome.

Production was due to begin in June 1939

Below: Wellington Mk. IC R1230:NZ-E was part of No. 304 (Polish) Squadron which converted to Wellingtons in November 1940 at Syerston. R1230 was shot down on the night of 11 April 1942. (RAF Museum)



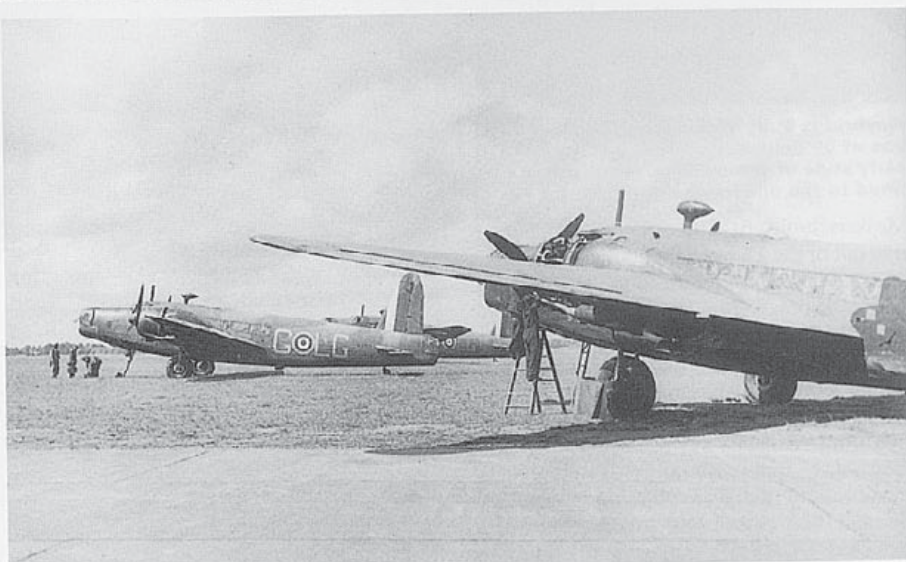


Above: Erks at work. Under the watchful eye of the SWO, a Wellington IA of No. 214 Squadron is being serviced at Stradishall in February 1941. (RAF Museum)

with the first two aircraft to be produced being serialled P2515 and P2533, but the advent of the war caused a reallocation of priorities for the Merlin and actual production aircraft did not start coming off the line until much later. In the event the Mk. II proved to be a slightly superior machine to the Mk. IC with better take-off performance and maximum speed. It also had a higher all-up-weight.

Vickers allocated a Mk. IC, R3221, for the first conversion and by May 1940 orders had been placed for 200 aircraft which could be fitted with the new 4,000-lb HE bomb, tropicalised installations and long-range tanks.

Meanwhile design studies for a Mk. III version had been going on. This was destined to become the mainstay of Bomber Command until the four-engined bomber force could be activated and although there were initial difficulties with the new Hercules III engines, these were overcome. The first production aircraft was P9238 which made its first flight in January 1941. Apart from the engines, modifications



included self-sealing fuel tanks and balloon wire cutters on the wing leading edges. The Mk. III was easily distinguishable from its predecessors by the elimination of much of the clear perspex windows in the fuselage which ran over the wing area, though the smaller triangular windows in the rear fuse-

Three of No. 215 Squadron's Wellingtons at dispersal at Bassingbourn showing the earlier type of camouflage in which the dark green and dark earth extended right down the fuselage sides. The aircraft in the centre is N2912:LG-G, a Mk. IIA. (IWM)

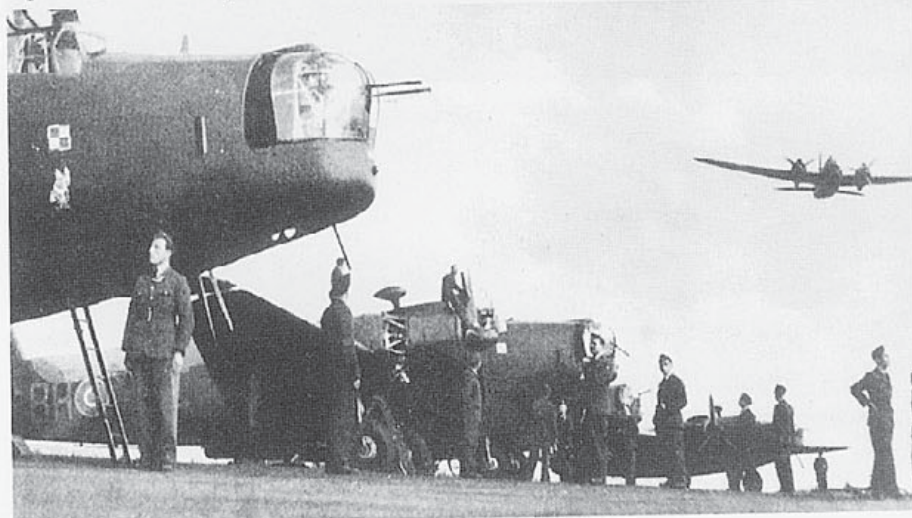
lage which housed the beam guns were retained.

The Wellington Mk. III was adapted for many different roles. It was fully tropicalised and therefore many were sent to the Middle East, but at the same time experiments with glider and fighter towing apparatus were carried out and the aircraft was also equipped to carry two torpedoes.

A total of 1,519 Wellington IIIs were built and out of these 780 came from the Blackpool production line and 737 from the Chester shadow factory at Hawarden.

The Wellington Mk. IV was a version that was designed to take the American Twin Wasp R-1830 engine and the adaptation was made in the light of what United States aid

Wellington Mk. ICs of No. 300 (Polish) Squadron who painted their national insignia on the fuselage just below the cockpit. The squadron converted to Wellingtons in August 1940 at Swinderby.



Right: A little known picture of a Wellington DWI during tests of the anti-magnetic mine equipment. The arrow points to the flash given off by the Sashalite equipment which was triggered when the aircraft flew overhead during the extensive RAE trials before the aircraft became operational. **Lower right:** Wellington DWI HX682R when serving with No. 1 GRU. (IWM)

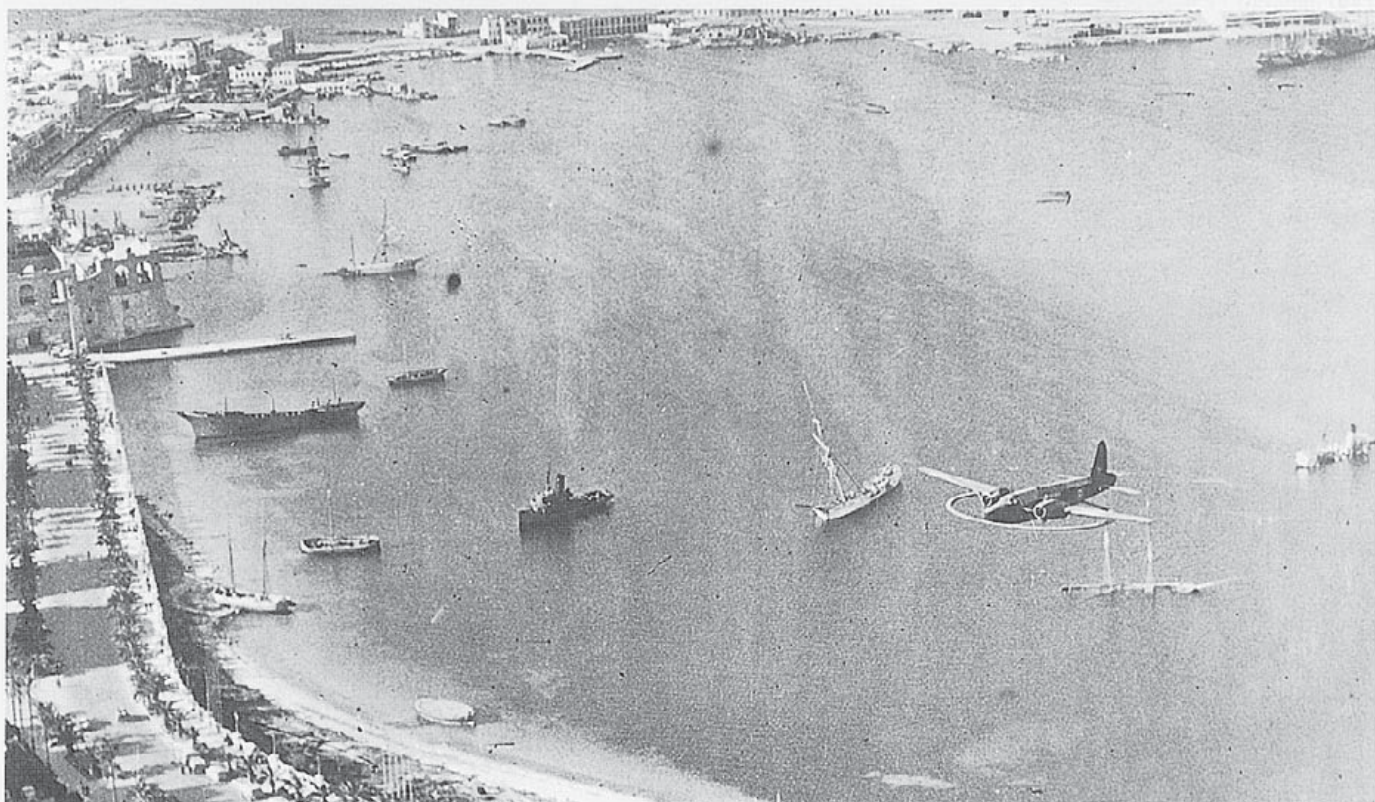
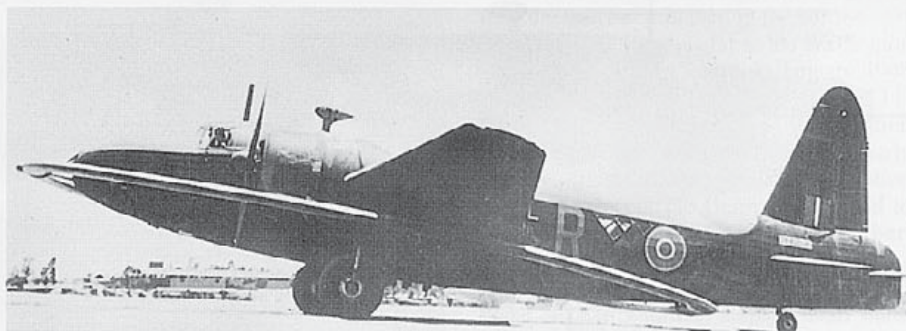
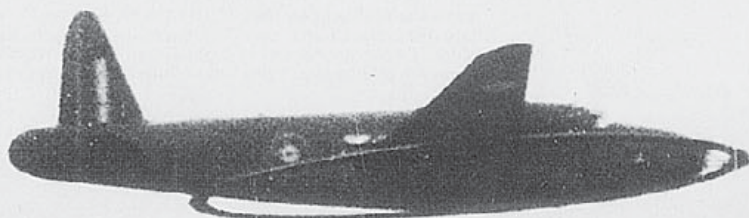
for Britain could offer when production of other engines was strained to the limit. The first prototype Mk. IV flew in December 1940 serialised R1220 and was built at Chester. Total production of the Mk. IV did not amount to a great deal, some 25 being built to the first contract which was followed by a second for 195.

MAGNETIC MINE DESTROYER

One of the roles that the Wellington was used for also created the greatest change in its external shape. This was the anti-magnetic mine version which was adapted from the Mk. I in the early days of the war to counter attacks made on shipping by German aircraft laying these hitherto unknown weapons in shipping lanes off the coast. Luckily, one fell into Royal Navy hands almost intact and its secrets were revealed. Discussions took place following suggestions from scientists at the Admiralty Research Laboratory and the Royal Aircraft Establishment which showed that an aircraft generating its own magnetic field at a safe height over the mine lying on the sea bed could detonate the weapon in safety.

Accordingly, Wellington Mk. IA, P2518, was taken from the production line at Weybridge and fitted with a large circular magnetic coil of some 48 ft in diameter attached to the underside of the fuselage at

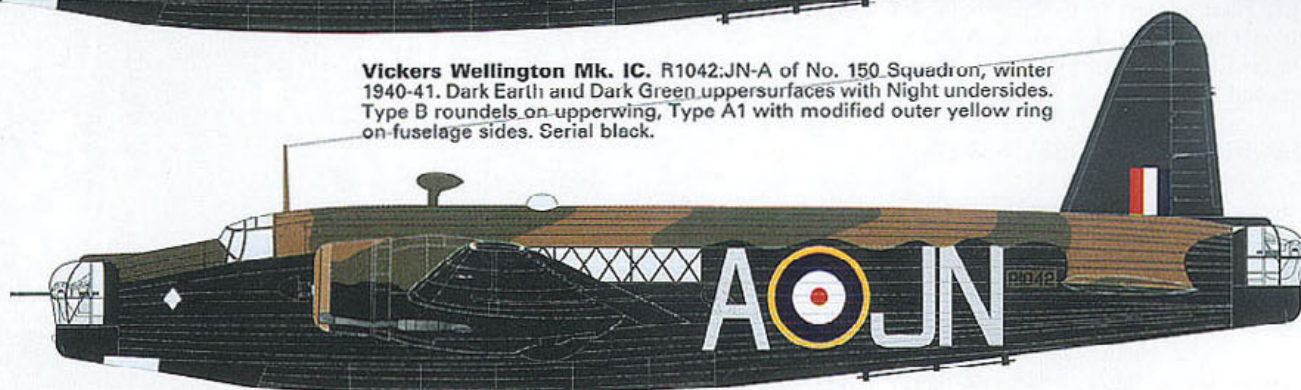
Middle East minesweeper. Wellington DWIs were based in Egypt initially to clear magnetic mines from the Suez Canal. This one is being used low down over Tripoli harbour after Allied occupation. (IWM)



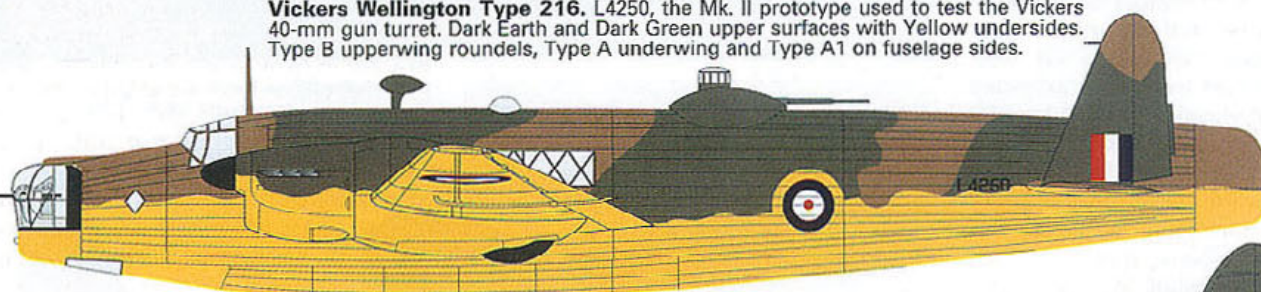
Vickers Wellington Mk. IC. R1378:KX-K of No. 311 (Czech) Squadron late 1940. Dark Earth and Dark Green upper surfaces with night undersides. Codes and serial in Light Grey. Type B roundels on upperwing, Type A1 on fuselage sides with white area overpainted blue.



Vickers Wellington Mk. IC. R1042:JN-A of No. 150 Squadron, winter 1940-41. Dark Earth and Dark Green upper surfaces with Night undersides. Type B roundels on upperwing, Type A1 with modified outer yellow ring on fuselage sides. Serial black.



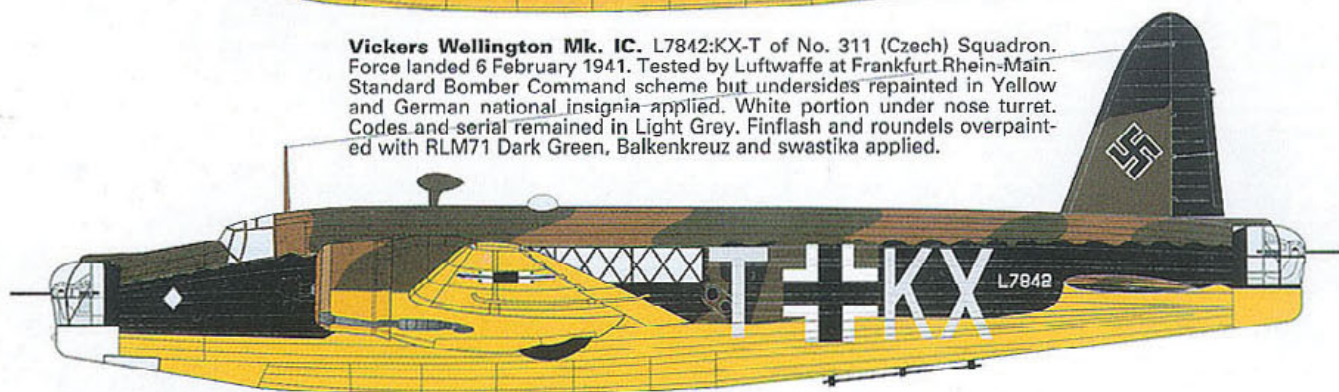
Vickers Wellington Type 216. L4250, the Mk. II prototype used to test the Vickers 40-mm gun turret. Dark Earth and Dark Green upper surfaces with Yellow undersides. Type B upperwing roundels, Type A underwing and Type A1 on fuselage sides.



Vickers Wellington Mk. V. R3298 (Vickers Type 421). Dark Earth and Dark Green upper surfaces with Yellow undersides. Type B Upper wing roundels, Type A underwing and Type A1 on fuselage sides.



Vickers Wellington Mk. IC. L7842:KX-T of No. 311 (Czech) Squadron. Force landed 6 February 1941. Tested by Luftwaffe at Frankfurt Rhein-Main. Standard Bomber Command scheme but undersides repainted in Yellow and German national insignia applied. White portion under nose turret. Codes and serial remained in Light Grey. Finflash and roundels overpainted with RLM71 Dark Green, Balkenkreuz and swastika applied.



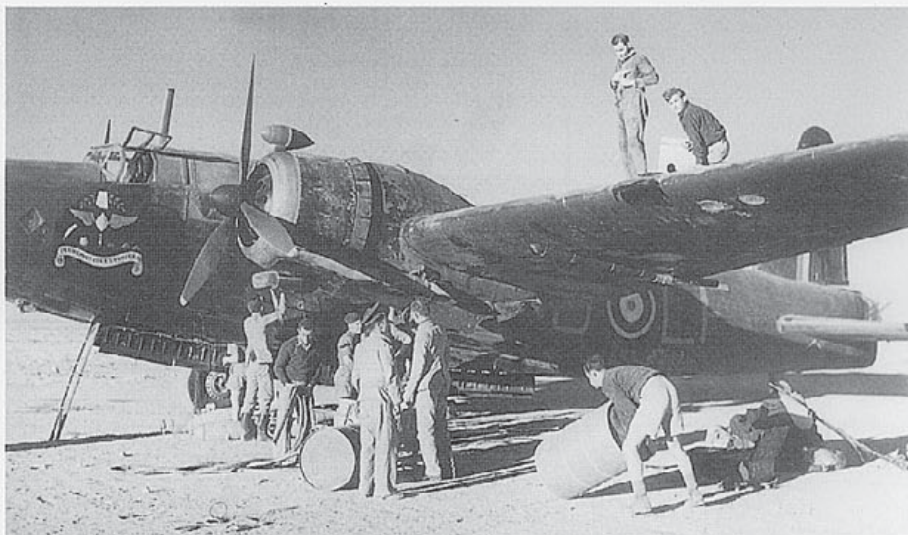
Vickers Wellington DWI. L4356 of No. 1 GRU, Canal Zone, Egypt in 1941. Dark Earth and Dark Green upper surfaces with Night undersides. Type B roundels on upperwing, Type A underwing and Type A1 on fuselage. Light Grey serial.



Wellington Mk. IC T2508:LF-O of No. 37 Squadron, which was amongst the first to equip with the type in the Libyan desert, seen being refuelled. The nose art beneath the cockpit is detailed on the frontispiece.

nose and tail. Its electrical power came from a Ford V8 engine installed in the fuselage itself which drove a generator to create the electro-magnetic field.

Experiments proved that the design was feasible and four aircraft were adapted under the auspices of the RAE at the direct request of the Admiralty. Variations of strength of the magnetic field were experimented with and the aircraft designated DWI (Directional Wireless Installation) Mk. I. A further 11 aircraft were modified but these had different generators driven by a Gipsy Six engine and were called DWI Mk.IIs. Initially one aircraft went out to the Middle East and was used very effectively over the Suez Canal. It was followed by several others which followed the advancing army up the Libyan coastline and cleared harbours of magnetic mines as they went. The use of the Wellington in this role was short-lived in the UK because ships were soon fitted with their own degaussing



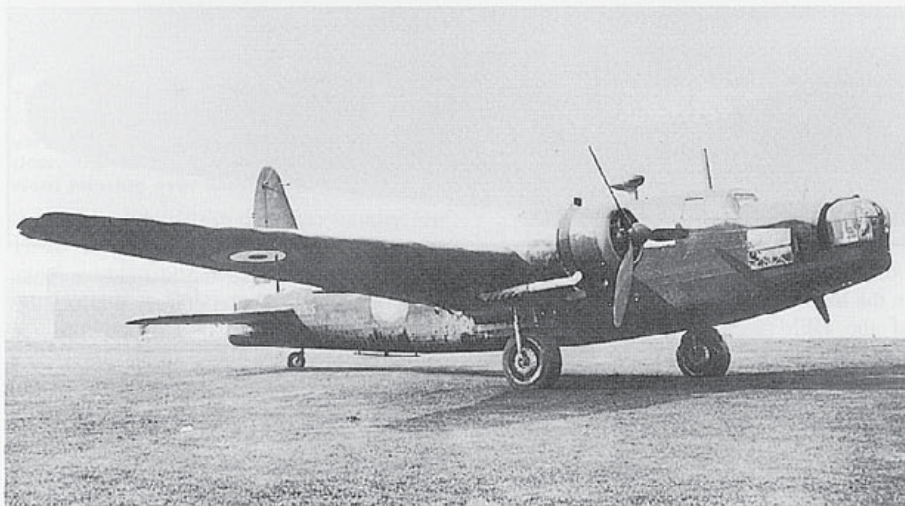
apparatus and the need was abandoned.

SLOW BEGINNINGS

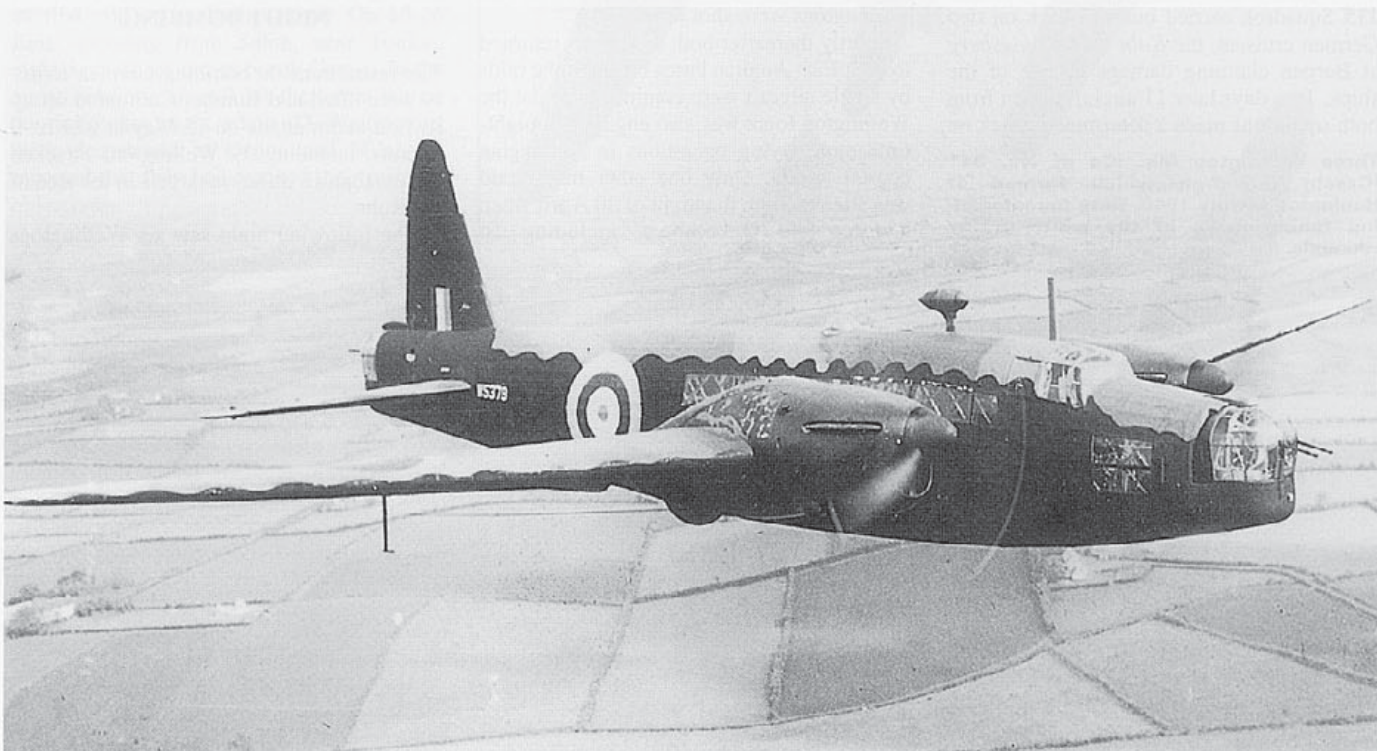
Following the disastrous attacks by Wellingtons on German warships in the Heligoland Bight during the first few days of

the war their activities were restricted to long range sorties over Germany itself armed with nothing more than propaganda leaflets. The raids, codenamed 'Nickel', taught crews the problems of operating by night over hostile territory and the difficulties encountered in accurate navigation and the inaccuracies of a number of weather forecasts which resulted in losses greater than the success achieved in the sorties.

Nickel raids began as far as the Wellington squadrons were concerned, in January 1940 with a visit to Hamburg on the night of 11-12 of that month. These types of operation were to continue spasmodically until early April 1940 when intelligence information was received that the Germans intended to invade Norway and Denmark. Bomber



Left: A total of 220 Wellington Mk.IVs were completed at Chester fitted with Twin Wasp R-1830 engines. R1515, seen here, differed little from the previous versions but could be identified by the small air intake on top of the engine cowlings. Below: Wellington II W5379 was operational with No. 12 Squadron before going missing over Cologne on 11 October 1941. (IWM)



Vickers Wellington Mk. IV. Z1400:UV-T of No. 460 Squadron RAAF, late 1941-42. Dark Earth and Dark Green upper surfaces with Night undersides. Type B roundels above wings, Type A1 on fuselage sides. Serials and codes, Dull Red.



Vickers Wellington Mk. IC. X9684:Y of No. 37 Squadron, Egypt, January 1942. Dark Earth and Mid-Stone upper surfaces with Night undersides. Codes and serials in Light Grey. Modified Type A1 roundels on fuselage, Type B on upper wings. Braying donkey's head under cockpit.

Vickers Wellington Mk. VI. DR484 (Vickers Type 449). Dark Earth and Dark Green upper surfaces with Azure Blue undersides. Black serial. Fin flash and fuselage roundel Type C1, Type B on upper wing surfaces.

Command's response was to increase the number of reconnaissance sorties over German harbours and surrounding sea areas.

The actual invasion began at dawn on 9 April but the RAF's reaction was limited due to the extreme range that the aircraft had to operate. Nos. 115 and 9 Squadrons moved to Kinloss and nearby Lossiemouth and a series of reconnaissance flights of the Bergen and Stavanger areas started. One aircraft of No. 115 Squadron carried out an attack on two German cruisers, the *Kohn* and *Konigsberg* at Bergen claiming damage to one of the ships. Two days later 11 aircraft drawn from both squadrons made a determined attack on

Three Wellington Mk. ICs of No. 311 (Czech) Squadron which formed at Honington in July 1940. Note the interesting toning down of the white in the roundels. (IWM)

Sola airfield near Stavanger which resulted in the loss of one Wellington and the award of the DFM to Flight Sergeant Gordon Powell of No. 115 Squadron for bringing his damaged aircraft back to base in spite of being wounded.

On 12 April 83 bombers including 36 Wellingtons set out in daylight to attack enemy shipping. Once again daylight bombing resulted in losses and three of the Wellingtons were shot down.

Shortly thereafter both squadrons returned to their East Anglian bases but sporadic raids by single aircraft were continued whilst the Wellington force was also engaged in night-time mine laying operations in Norwegian coastal waters. Only one other major raid was attempted on the night of 30 April when a force of 50 bombers, including 16

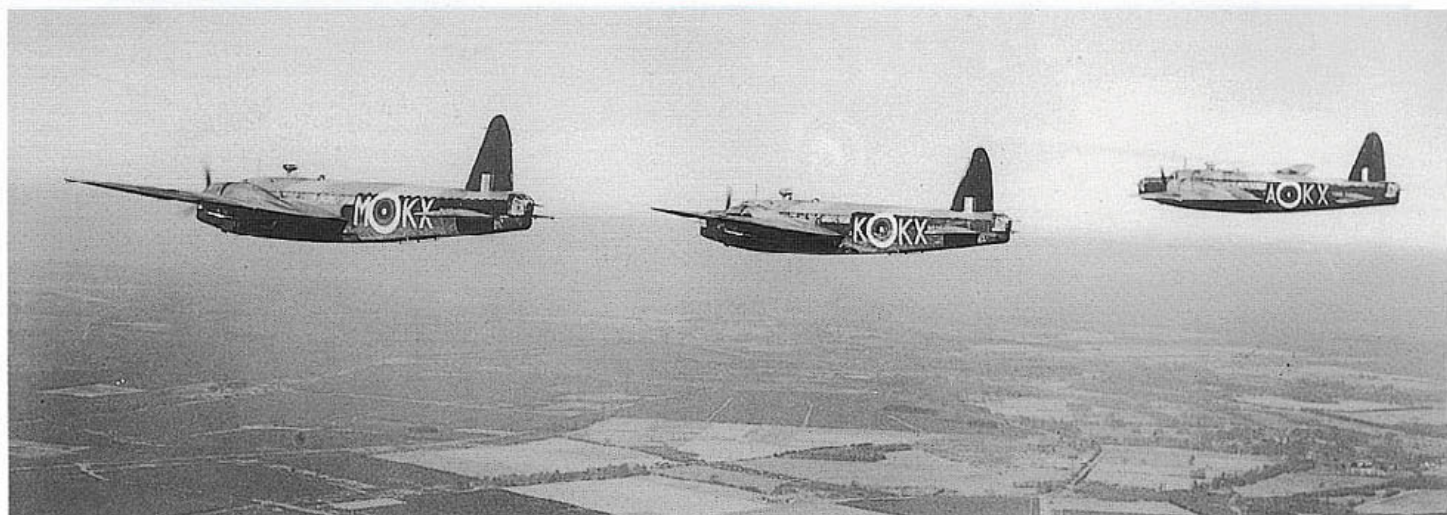
Wellingtons, attacked the airfields at Sola, Fornebu and Aalborg, three Wellingtons being lost.

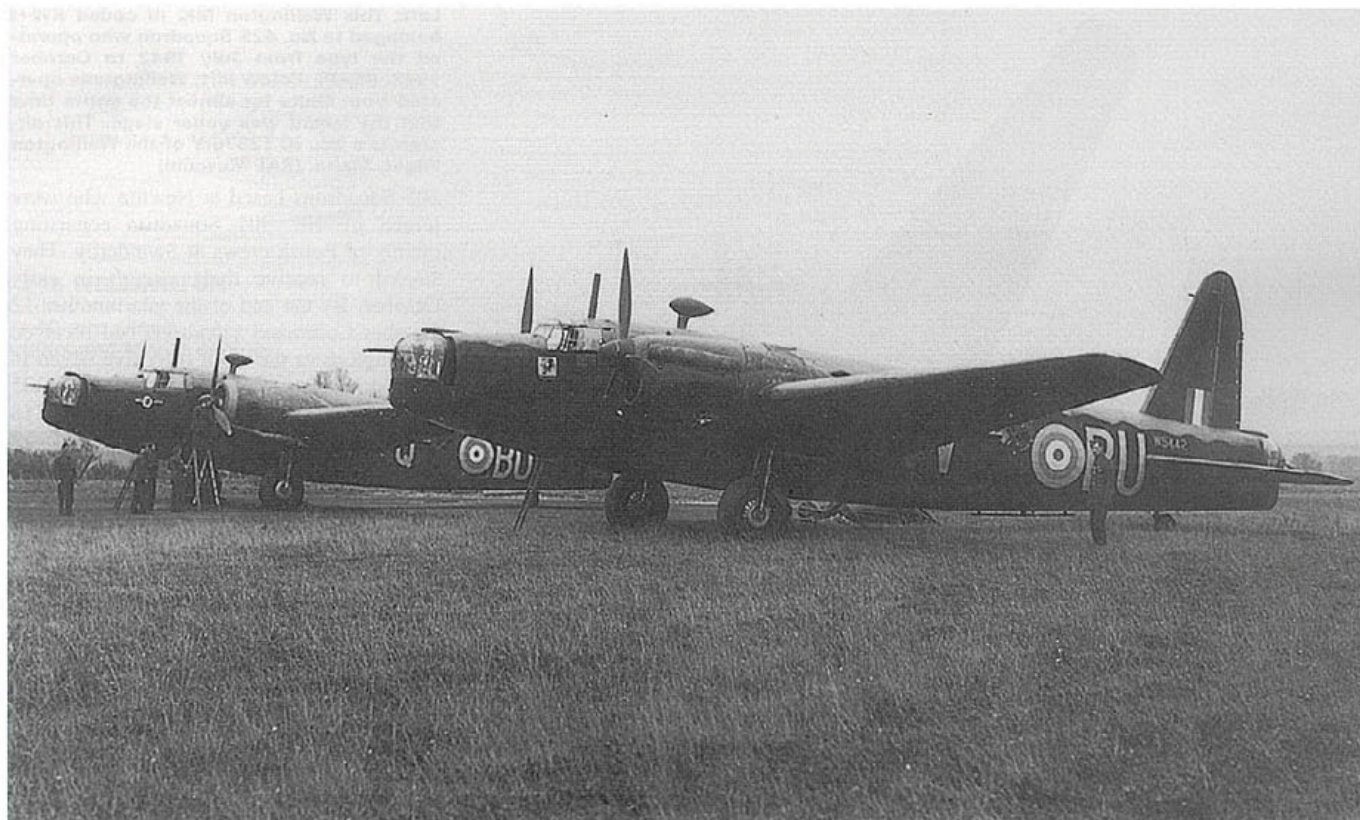
But matters were also coming rapidly to a head elsewhere and on 10 May 1940 German forces attacked Holland, Belgium and subsequently took *blitzkrieg* to northern France. Six weeks later Britain stood alone after the French capitulation.

NIGHT BOMBING

The restrictions on bombing German territory were lifted and Bomber Command set up its first major attack on 15 May in which 99 aircraft, including 39 Wellingtons attacked no less than 16 different targets in the area of the Ruhr.

The following night saw six Wellingtons





Transition from Mk. IC to Mk. II took place for No. 214 Squadron in June 1941. Both versions can be seen at Stradishall at that time, the Mk. II being W5442-BU-V. This went missing over Essen in March 1942.

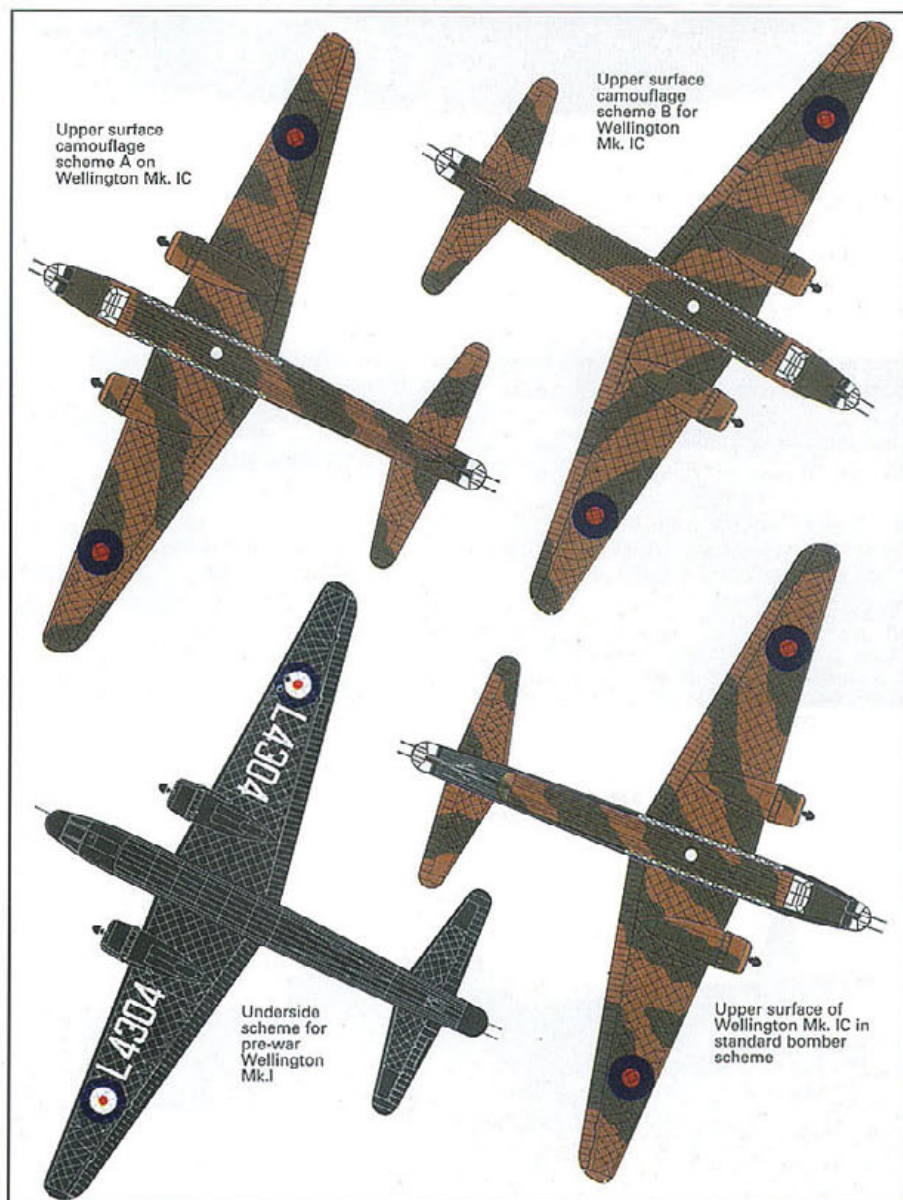
sent to hit oil targets in the same vicinity. On 17-18 May 46 Wellingtons were sent to attack enemy troop concentrations and communications in Belgium while a further six Wellingtons bombed Cologne's railway yards, all without loss.

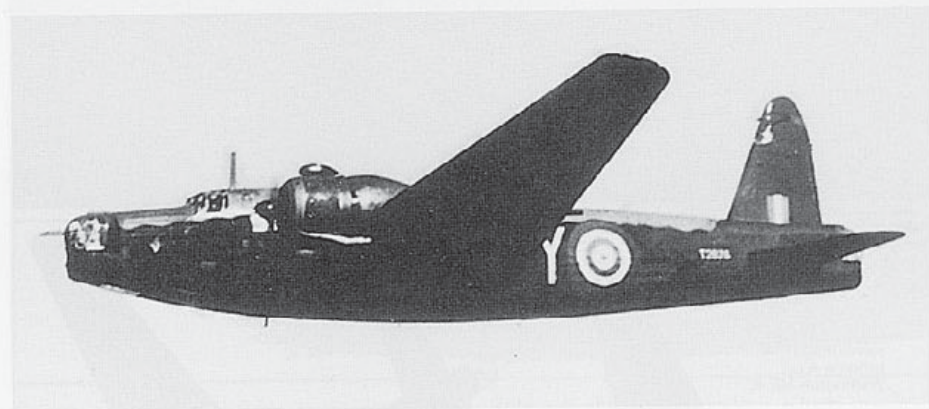
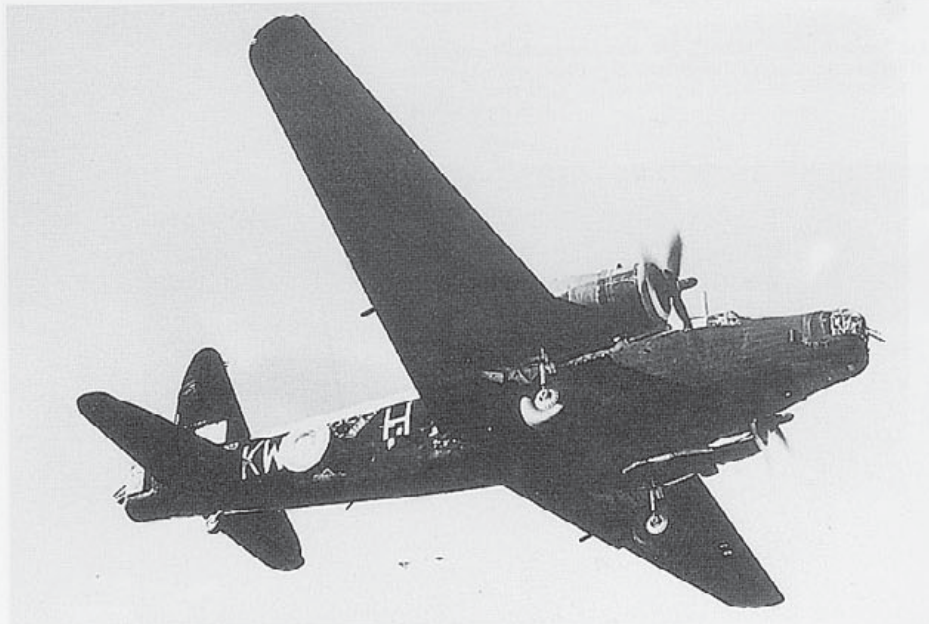
Subsequently Bomber Command was engaged in tactical raids to help the army in its fighting retreat to the Channel coast. At the same time the Italians joined in the war on 10 June and, whilst bases were still available in France, Bomber Command organised its first raid on an Italian target. On 15-16 June operating from Salon, near Toulon, eight aircraft set out to bomb Genoa. In the event only one aircraft hit the target but on the following night when 22 Wellingtons were despatched to Genoa and Milan all reported that they had reached their primary objectives.

NEW SQUADRONS

With the sudden changes in fortune taking place in Europe, Bomber Command was due for some re-thinking and changes in planning. In the first instance the number of first-line bomber squadrons had to be increased but during the Battle of Britain fighter production was given absolute priority. Only one new unit formed during that period, No. 311 Squadron came into being at Honington in July 1940 composed mainly of Czech expatriates.

Thereafter three more units began receiving Wellingtons two of which had formerly been equipped with Fairey Battles that had been decimated during their valiant attempts to hold up the German advance in Belgium and France. These consisted of Nos. 103 and





Left: This Wellington Mk. III coded KW-H belonged to No. 425 Squadron who operated the type from July 1942 to October 1943. (MAP) Below left: Wellingtons operated from Malta for almost the entire time that the island was under siege. This aircraft is a Mk. IC T2876:Y of the Wellington Flight, Malta. (RAF Museum)

105 Squadrons based at Newton who were joined by No. 301 Squadron consisting mainly of Polish crews at Swinderby. They started to receive their aircraft in early October. By the end of the year another 12 Bomber Command squadrons had received Wellingtons as the night offensive began in earnest. These were Nos. 304 and 305 (Bramcote), 40 and 15 (Wytton), 218 (Marham), 57 (Feltwell), 142 and 12 (Binbrook), 221 (Bircham Newton) and 300 Squadrons (Swinderby). Two other squadrons Nos. 93 (Middle Wallop) and 109 (Boscombe Down) also received a few Wellingtons.

The threat of invasion took on major proportions during this period and in the late summer and autumn bomber crews were nightly attacking concentrations of barges in French and Belgian ports which the Germans had assembled to transport their troops across the Channel. Road and rail communications leading to the ports were also attacked.

By the time winter came the emphasis of Bomber Command's raids also changed. They were given oil targets in the Ruhr as their main objective but industrial and railway centres were also on the target list.

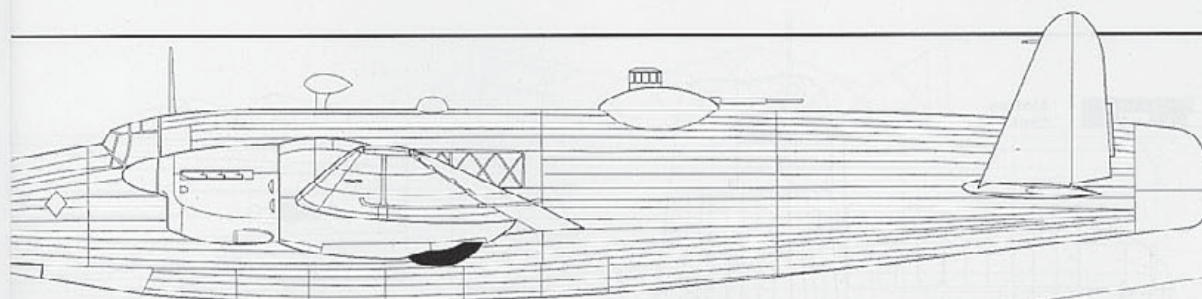
This was the start of the strategic bomber offensive that eventually did so much to finish the war. So many were the targets listed that it must have been a difficult problem to pick those with the highest priority. The reason was that at this time Bomber Command had no more than 130 Hampden and Whitley aircraft plus about 100 Wellingtons with limited range, a serviceability strength of no more than 150 on any one night and, with the advent of the four-engined bombers, a re-training problem that took large resources to maintain. It was at this point in the war where the Wellington crews were bearing the brunt of night bombing raids.

Targets were now being visited all over Germany. Hamburg, Keil, Mannheim and even Berlin appeared on the Ops Board at HQ and on the Stations. Other targets in Bordeaux and Lorient were also visited.

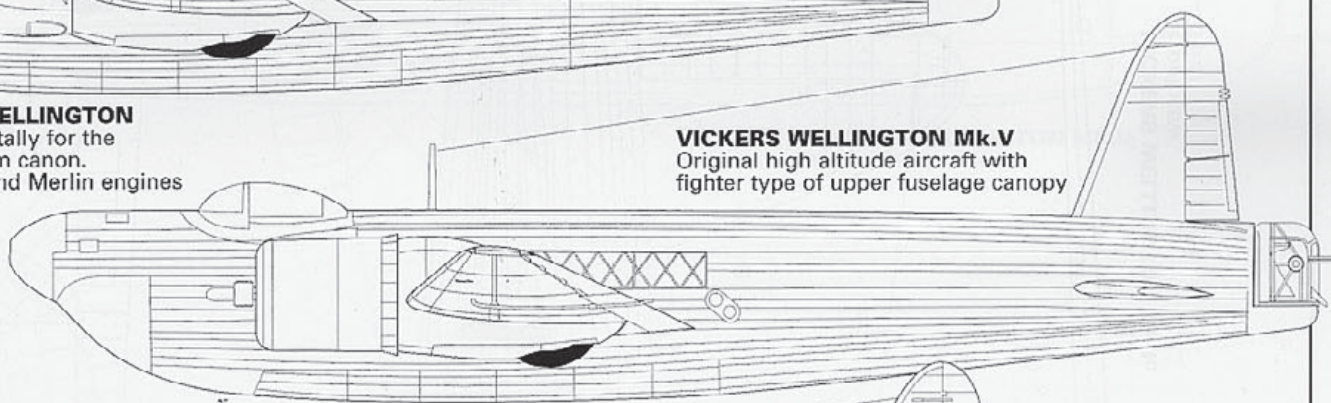
The first visit in force to the 'Big City' by Wellingtons was made on the night of 14-15 November 1940 when a total of 50 aircraft concentrated their attack on the German capital.

Tactics on both sides were being developed rapidly. The Luftwaffe reacted by the use of radar and ground controlled interceptions. The first successful attack being made by Leutnant Becker in a Dornier Do 17Z on a Wellington of No. 115 Squadron on the night of 1-2 October.

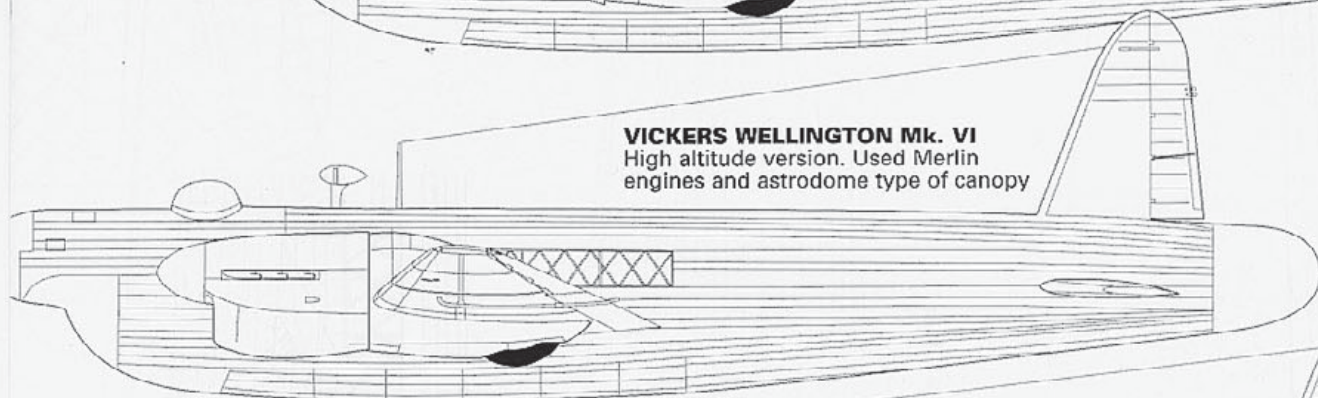
Above left: A line up of Wellington Mk. IIIs at No. 30 OCU Hixon with BK347:BT-Z in the foreground. The third aircraft in the line has codes for No. 115 Squadron - obviously not changed after being posted for training duties. Left: Wellington T.Mk.Xs were part of the bombing force operating from Italian airfields. These aircraft are being readied for a night raid on the enemy. (IWM)



VICKERS Type 216 WELLINGTON
 First used experimentally for the
 mounting of Vickers 40-mm canon.
 Retained front turrets and Merlin engines

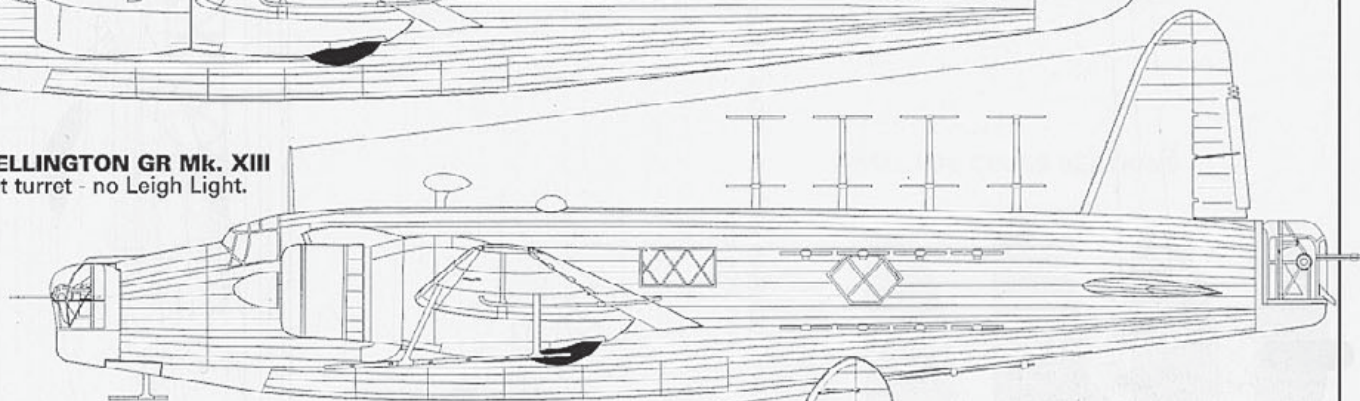


VICKERS WELLINGTON Mk.V
 Original high altitude aircraft with
 fighter type of upper fuselage canopy



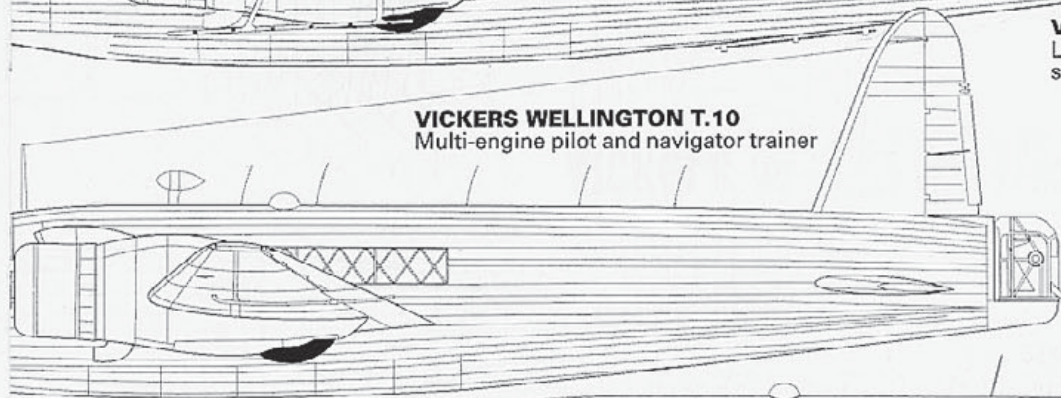
VICKERS WELLINGTON Mk. VI
 High altitude version. Used Merlin
 engines and astrodome type of canopy

VICKERS WELLINGTON GR Mk. XIII
 Retained front turret - no Leigh Light.



VICKERS WELLINGTON GR Mk. XI
 Leigh light fitted under rear fuselage. Operator
 sat in position of former nose turret

VICKERS WELLINGTON T.10
 Multi-engine pilot and navigator trainer

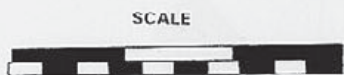


V. Mk. XVIII and XVIII
 Fighter crew trainer



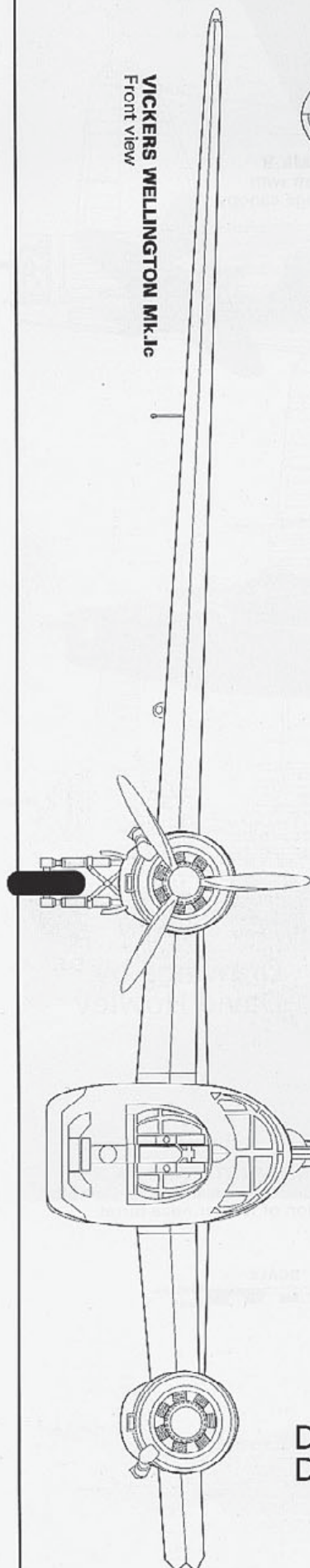
Drawings by
 David Howley





Metres
Feet

VICKERS WELLINGTON Mk.Ic
Front view



E

D

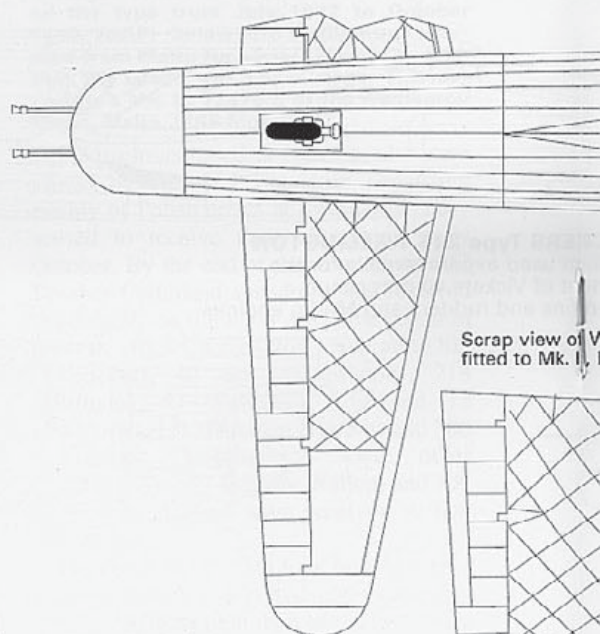
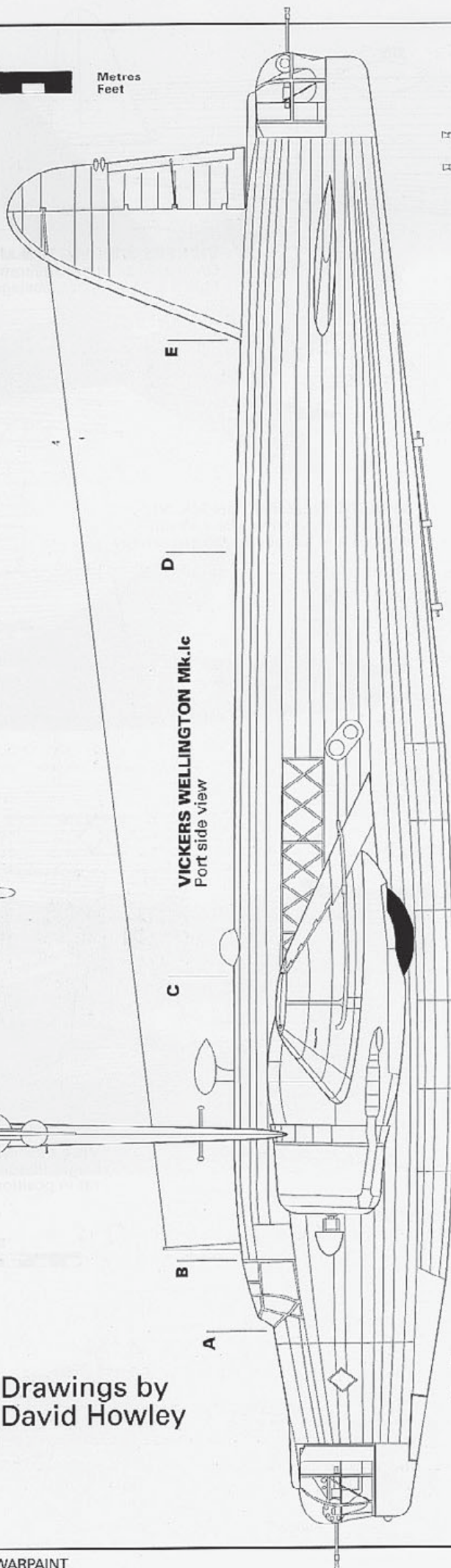
VICKERS WELLINGTON Mk.Ic
Port side view

C

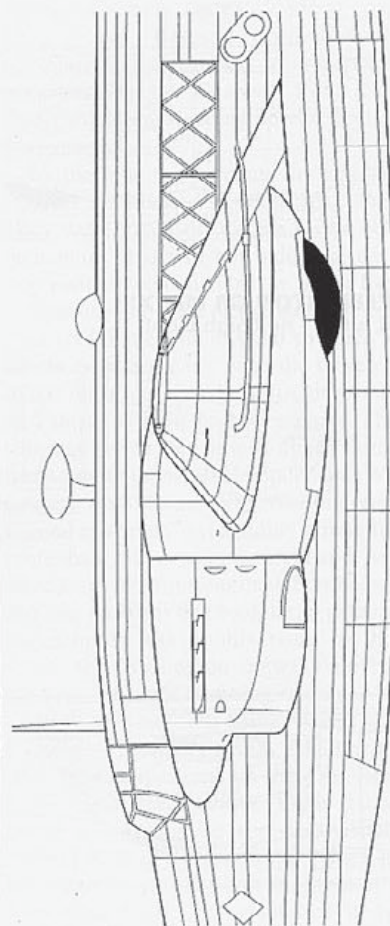
B

A

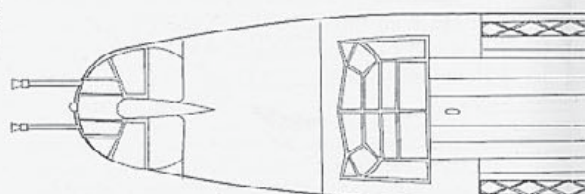
Drawings by
David Howley

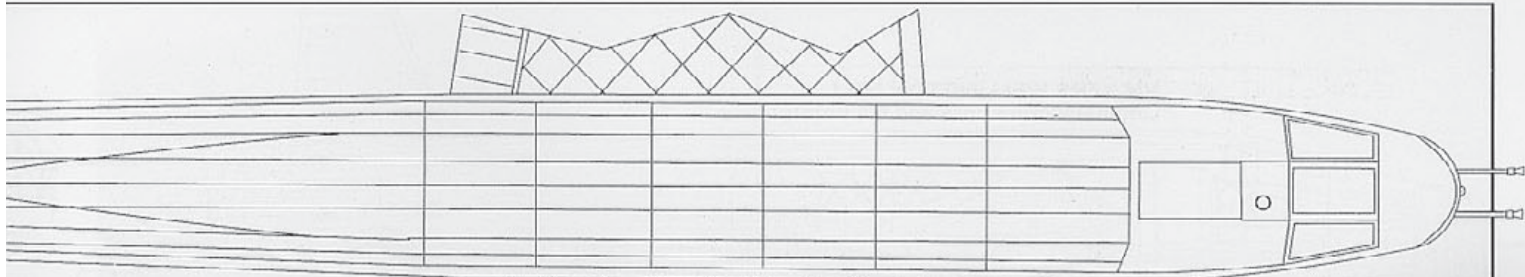


Scrap view of V
fitted to Mk. I.



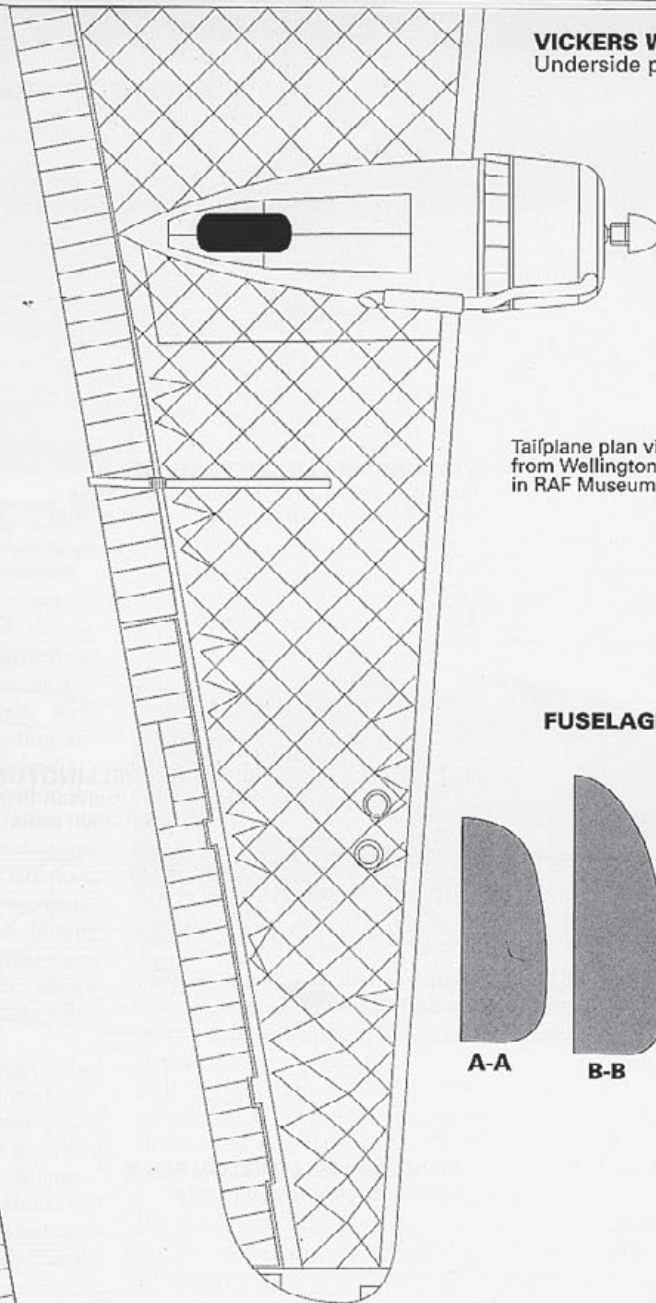
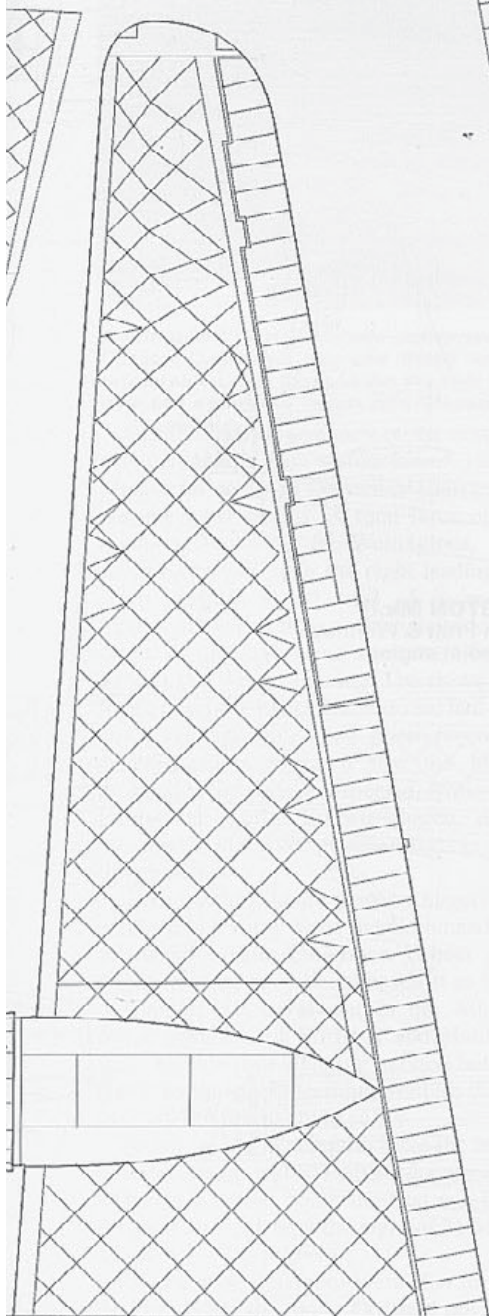
VICKERS WELLINGTON Mk.II
Scrap port side view showing differences
in Merlin engine layout



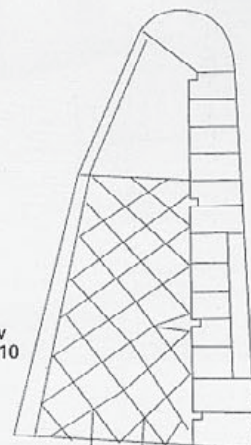


VICKERS WELLINGTON Mk.Ic
Underside plan view

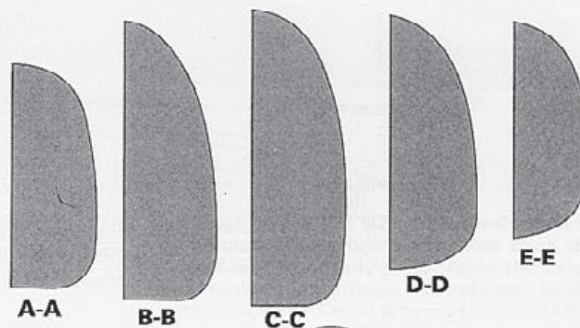
Wellington tailplane
I and X



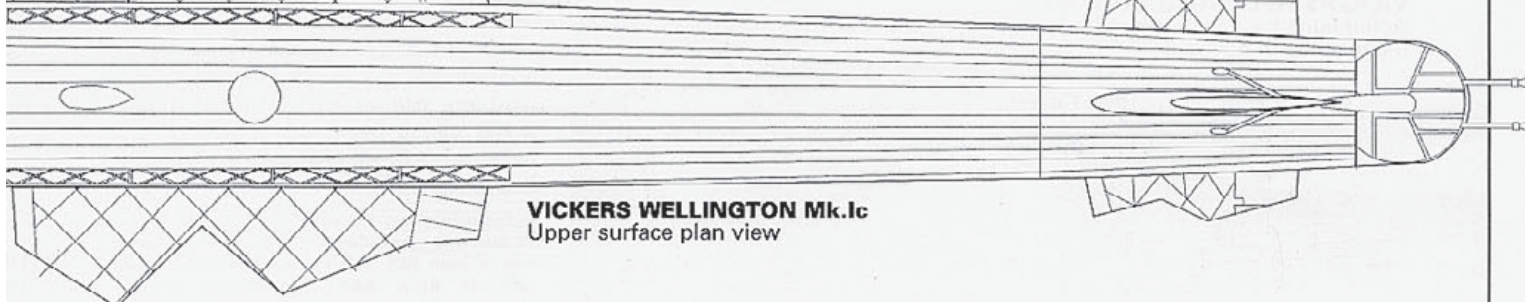
Tailplane plan view
from Wellington T.10
in RAF Museum.



FUSELAGE CROSS SECTIONS

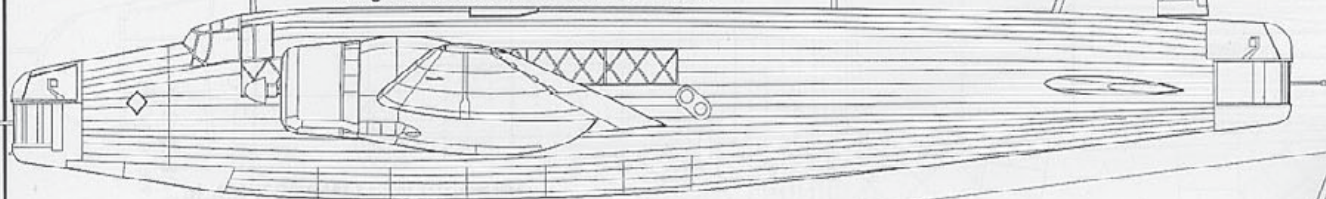


Vickers WELLINGTON

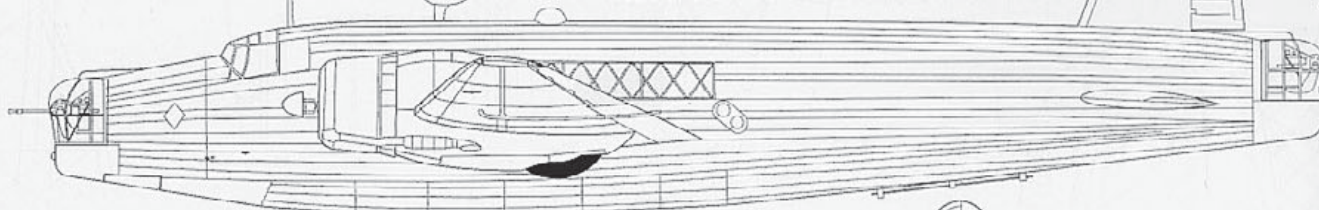


VICKERS WELLINGTON Mk.Ic
Upper surface plan view

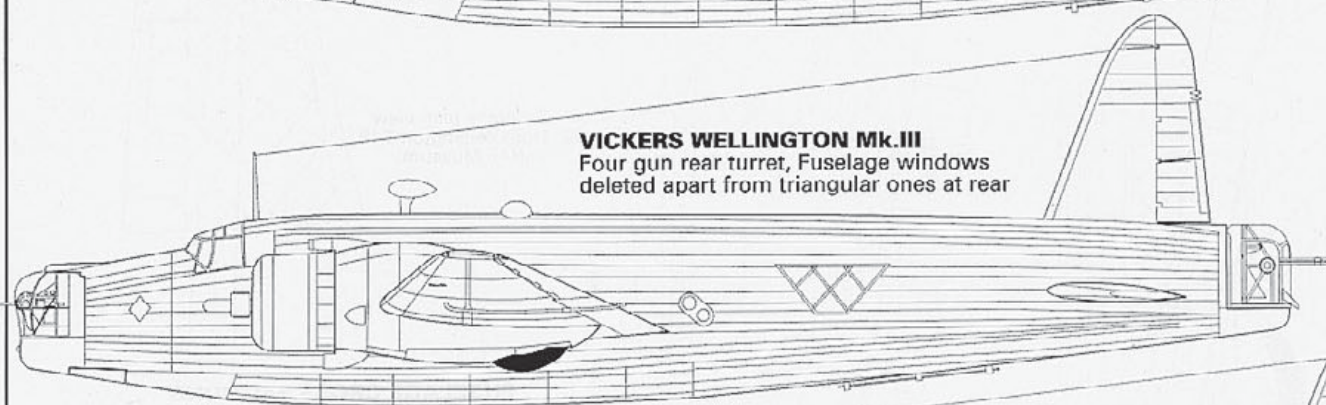
VICKERS WELLINGTON Mk.I
Original Vickers nose and tail turrets



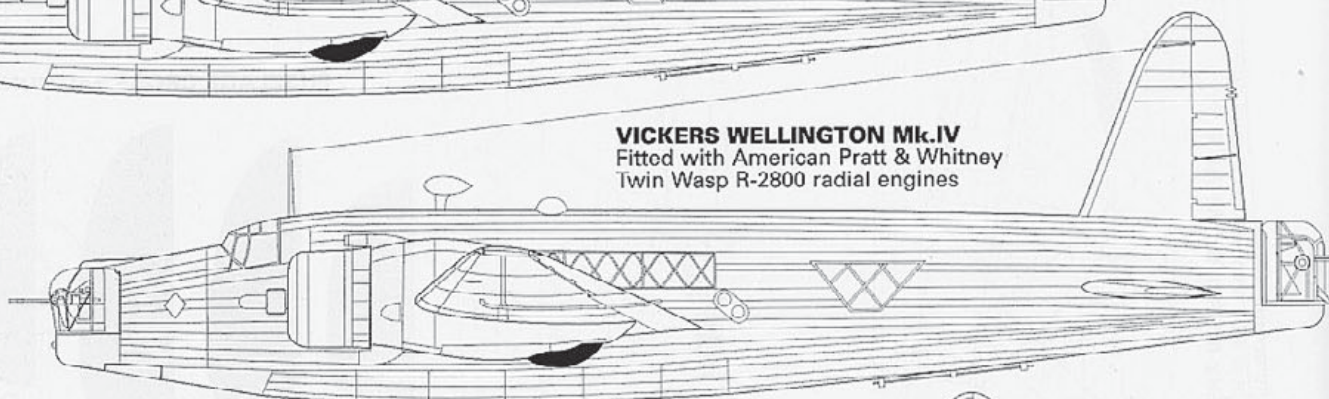
VICKERS WELLINGTON Mk.IA
Twin .303 machine guns in Frazer-Nash nose and tail turrets introduced as standard



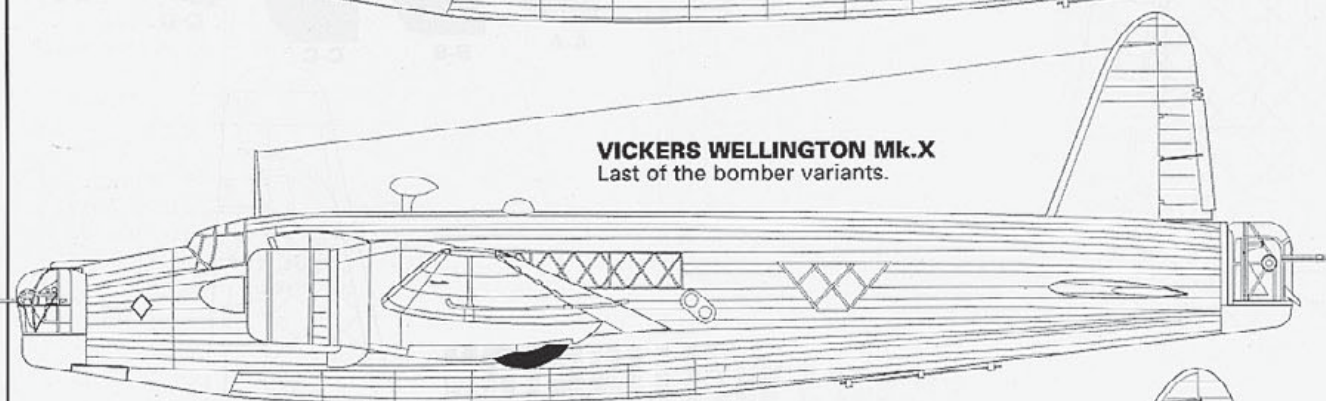
VICKERS WELLINGTON Mk.III
Four gun rear turret, Fuselage windows deleted apart from triangular ones at rear



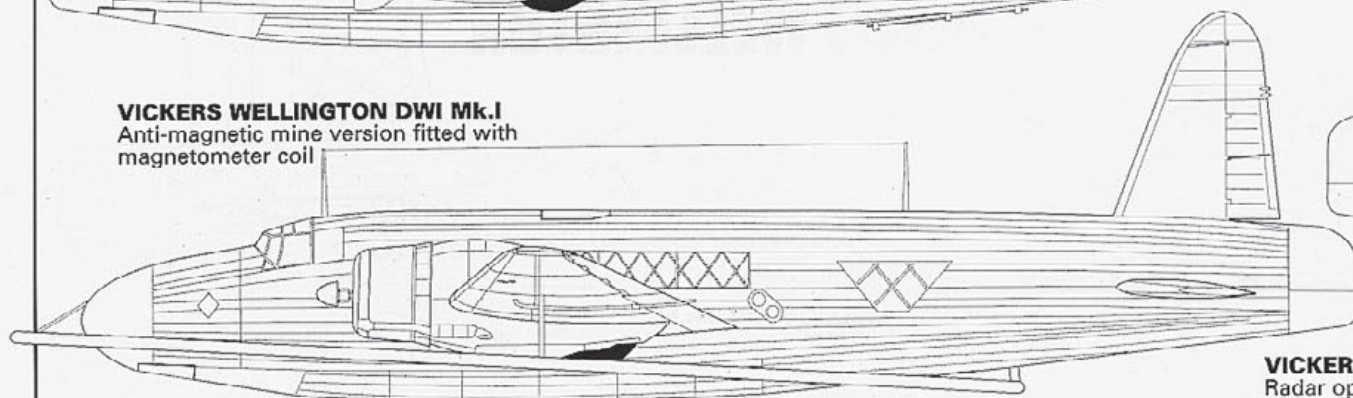
VICKERS WELLINGTON Mk.IV
Fitted with American Pratt & Whitney Twin Wasp R-2800 radial engines



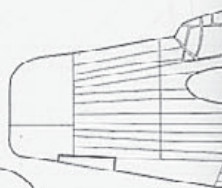
VICKERS WELLINGTON Mk.X
Last of the bomber variants.

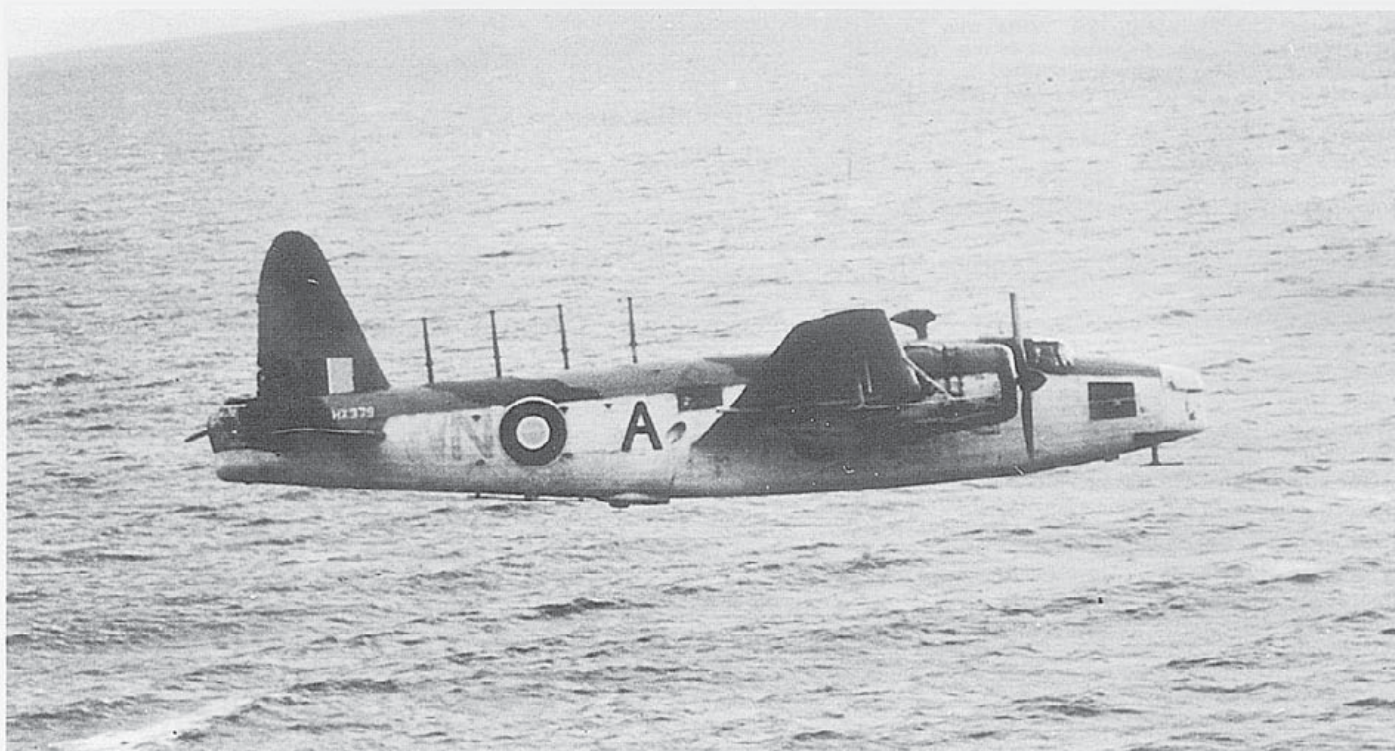


VICKERS WELLINGTON DWI Mk.I
Anti-magnetic mine version fitted with magnetometer coil



VICKERS WELLINGTON Mk.V
Radar operator and night fighter variant





Wellington VIII HX379 was converted for Coastal Command use and fitted with a retractable Leigh Light under the rear fuselage and early ASV radar. (RAF Museum)

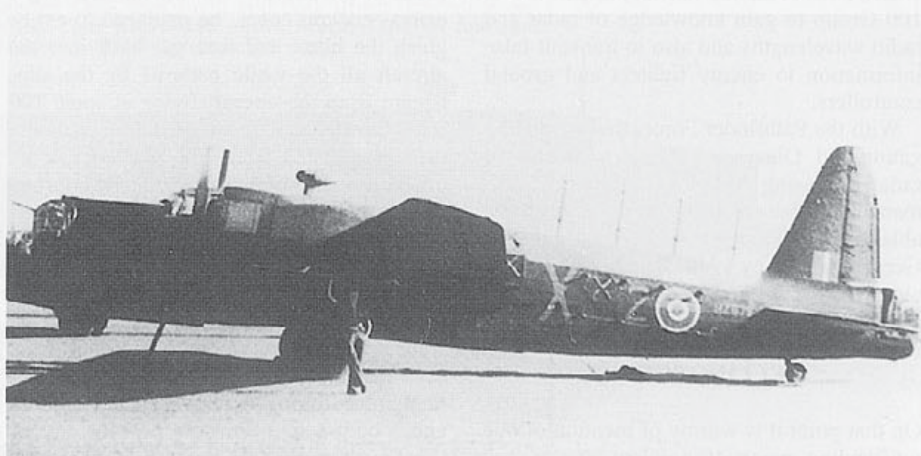
But the lack of accuracy of the bombing was demanding new tactics too. A raid on Mannheim on 16-17 December 1940 led the way to better results. A total force of 134 bombers, including 61 Wellingtons, were sent on this raid with the eight leading aircraft carrying a full load of incendiary bombs and instructions to drop these 'on the centre of the city' to act as markers for the aircraft that were following. The crews were lulled into false hopes that this raid had done much damage but when photo-reconnaissance pictures revealed that the bombs dropped were widely dispersed, some even falling on nearby Ludwigschafen, disappointment led to even greater efforts to solve the problem.

Meanwhile primary priority targets also changed and for a while the Command was instructed to attack German U-boat pens, dockyards and operational bases in an effort to support the naval war in the Atlantic. Small numbers of Stirlings and Halifaxes were by this time entering service but suffered the inevitable teething troubles that all new aircraft are likely to suffer.

To bolster the Wellington force the Mk. II became operational and with it the use of the 4,000-lb 'Cookie' bomb the first one being dropped on Emden on the night of 31 March 1941.

Several new squadrons were also formed. The first was No. 104 at Driffield upgraded from a training unit to full operational status. No. 101 Squadron exchanged its Blenheims for Wellingtons based at West Raynham on 20 April and the first Canadian squadron, No. 405 (Vancouver) arrived to join 104 at Driffield. In August 1941 the first Australian squadron joined Bomber Command and

Part of the SEAC force of anti-submarine Wellingtons used in patrols over the Indian Ocean, this Wellington GR. XIII was based at Idku in March 1944 with No.294 Squadron. (RAF Museum)



were equipped with the Wellington. No.458 Squadron formed at Holme-on-Spalding Moor and became operational in early October 1941.

Two other squadrons also formed before the end of the year. These were No. 215 at Newmarket and the second Canadian unit, No. 419 Squadron at Mildenhall.

But changes were coming and as the Whitleys and Hampdens gave way to their newer four-engined counterparts, the Wellington squadrons flew on proving that the type was possibly superior to the other two. This can certainly be judged by the

Wellington GR. VIII HZ575:X-2 belonged to 403 Squadron before it was lost over the Bay of Biscay in July 1943. Note the original bomber camouflage was retained in the early stages of Coastal operations. (MAP)

available figures because in November 1941 250 Wellingtons were in No. 3 Group compared to 150 Hampdens and 62 Whitleys. Against these there were 31 Manchesters, 18 Stirlings and 17 Halifaxes. It is fair to say that without the Wellington, Bomber Command would not have been able to sustain its attacks on German industry during the first three years of World War 2.



A line-up of Wellington GR. VIII's at Grottaglie judging by the sparceness of the vegetation. The unit has been identified as No. 221 but the aircraft look very new and the erks with kitbags on the right of the picture, suggest they have just arrived.

By early 1942 even more Wellington squadrons were formed almost all being equipped with the Mk. III. Nos. 156, 40 and two Canadian squadrons Nos. 425 and 420 Squadrons joined the fray in time for the first of the three 1,000 bombers raids on Cologne, Essen and Bremen. For the operation against Cologne first line bomber squadrons contributed 364 Wellingtons with a further 238 coming from OTUs and other non-operational units.

The advent of the Pathfinder Force, commanded by Air Vice Marshal Don Bennett had many of its first squadrons from Wellington units. No. 156 Squadron moved from Alconbury to Warboys in August 1942 and remained in the role until the war's end although later equipped with Lancasters.

Another Wellington role was assumed by No. 192 Squadron, formed in 1943 for what is now known as the 'Elint' role. Their aircraft flew over enemy territory as part of No. 100 Group to gain knowledge of radar and radio wavelengths and also to transmit false information to enemy fighters and ground controllers.

With the Pathfinder Force, the radio navigation aid Oboe and the introduction of radar-confusing Window, Bomber Command had achieved a very professional force able to undertake the accurate destruction of German targets by 1943. The Luftwaffe had also vastly improved its defences and losses due to enemy action were heavy.

WELLINGTON VC

On that point it is worthy of mention of one outstanding piece of heroism which won Sergeant 'Jimmy' Ward, a New Zealander, the Victoria Cross. He had joined No. 75



(NZ) Squadron in June 1941 at Feltwell and the award was made for his exploits on 7 July of that year. Flying as second pilot in Wellington L7818:AA-R in a raid on Munster, the aircraft was attacked by a Messerschmitt Bf110 over Holland which hit the starboard engine setting ruptured fuel lines on fire. Ward climbed out of the astrodome and by kicking foot and hand holds in the aircraft's fabric and carrying a canvas cockpit cover he managed to extinguish the blaze and then get back into the aircraft all the while battered by the slipstream from the aircraft flying at some 100 mph. Totally exhausted by his endeavours he was assisted back into the aircraft by other crew members and the aircraft returned to make an emergency landing at Newmarket.

Ward's VC was possibly the highest honour to be awarded to a member of Bomber Command but there were many others who were given DFCs and DFMs for their bravery. Regretably Ward was killed on 15 September during a raid against Hamburg and is buried in a cemetery near the city.

Operations by Wellingtons were slowly phased out in 1943 but the aircraft remained operational with at least two squadrons, 192

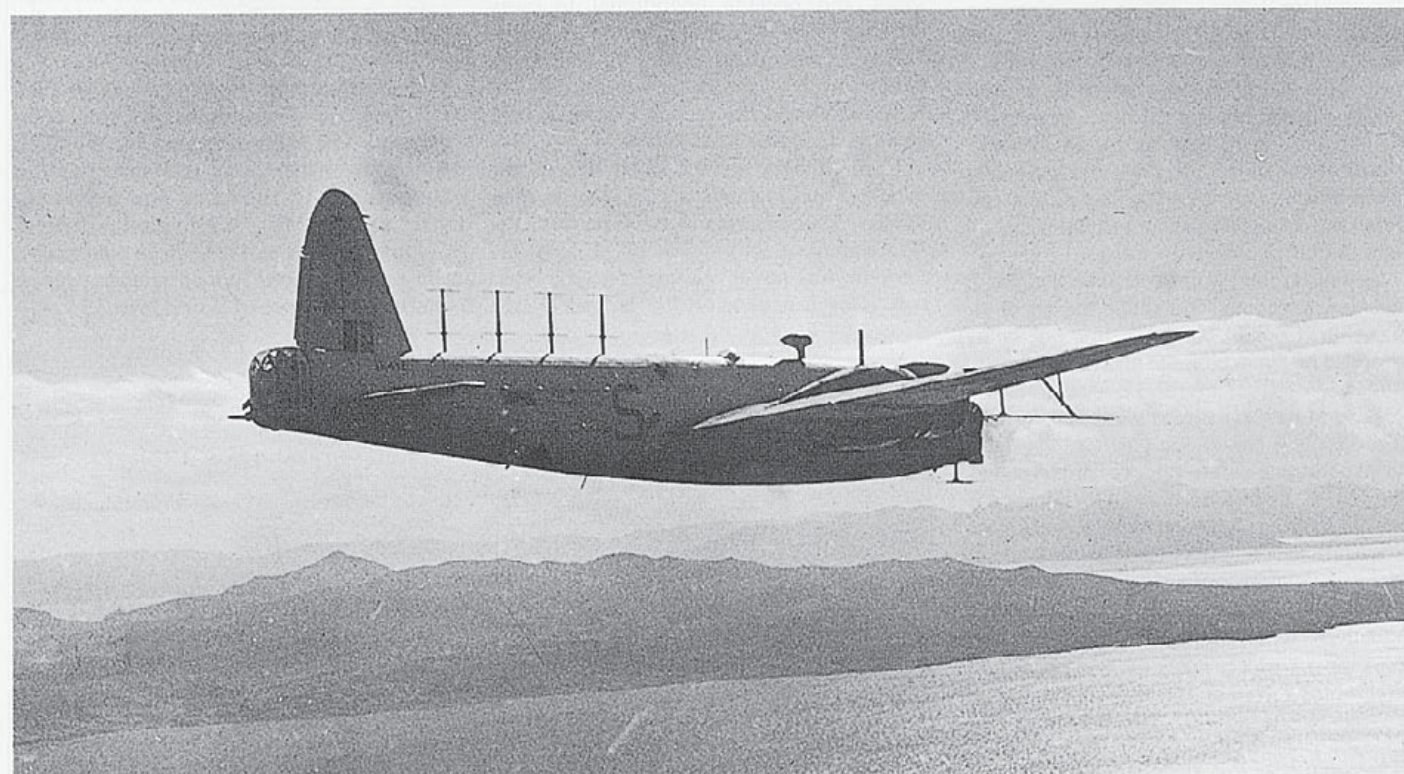
already mentioned and No. 300 Squadron whose main task was minelaying in enemy waters. Wellingtons used by the OTUs were also sent over enemy territory on leaflet dropping raids and were used in spoof raids to confound and confuse enemy air defences.

WELLINGTONS OVERSEAS

Although not in such prodigious numbers as in Bomber Command, Wellingtons served both in the Middle and Far East.

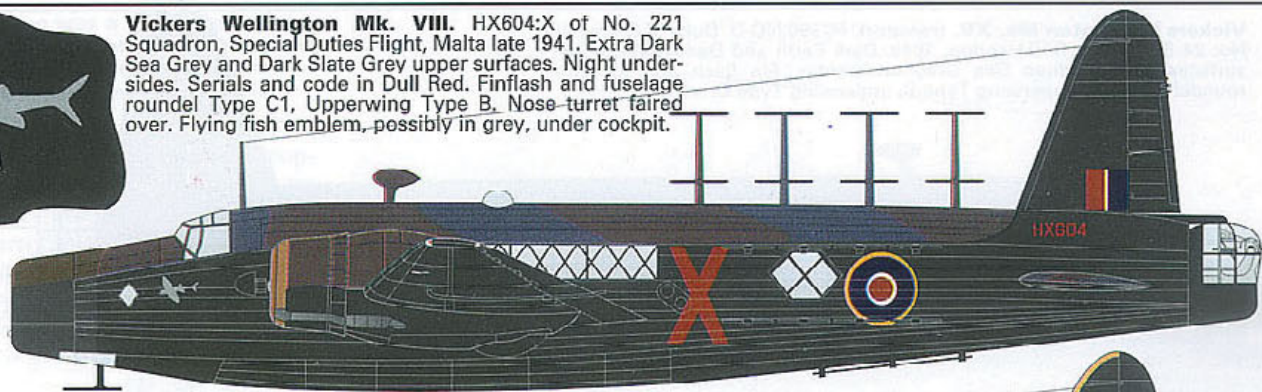
When Italy entered the war in June 1940 there were only 29 assorted squadrons available to counter any threat. Most of these were equipped with ancient biplanes and the most modern bomber was the Blenheim, four squadrons of which were available. Obviously there was an immediate need for longer ranged aircraft and indeed four Wellingtons were dispatched to Egypt in June 1940 but these were all modified as anti-magnetic mine aircraft for duties over the Suez Canal and North African ports.

A well-known but nostalgic picture of a Wellington GR.XIV of No. 221 Squadron airborne over the Greek islands when based at Kalamaki/Hassani. The radar aerial display is adequately illustrated. (IWM)

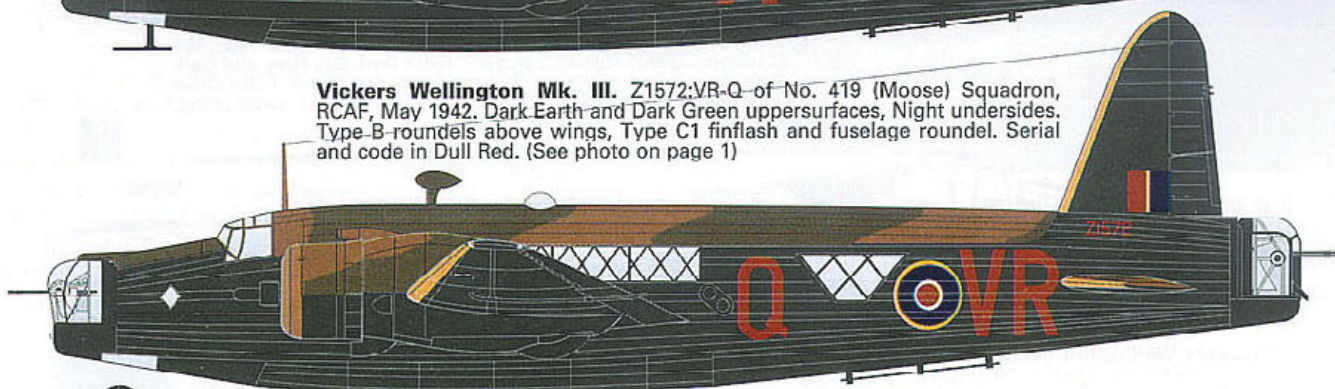




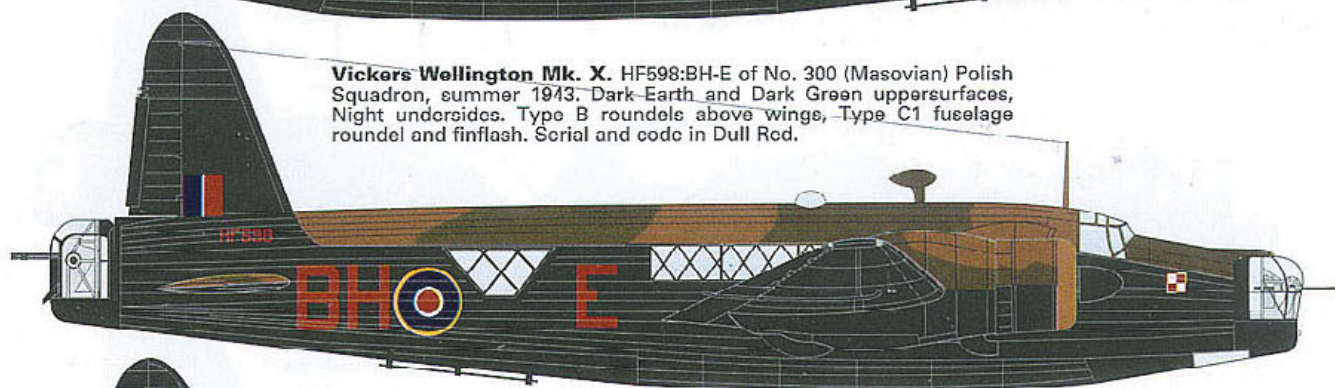
Vickers Wellington Mk. VIII. HX604:X of No. 221 Squadron, Special Duties Flight, Malta late 1941. Extra Dark Sea Grey and Dark Slate Grey upper surfaces. Night undersides. Serials and code in Dull Red. Finflash and fuselage roundel Type C1. Upperwing Type B. Nose-turret faired over. Flying fish emblem, possibly in grey, under cockpit.



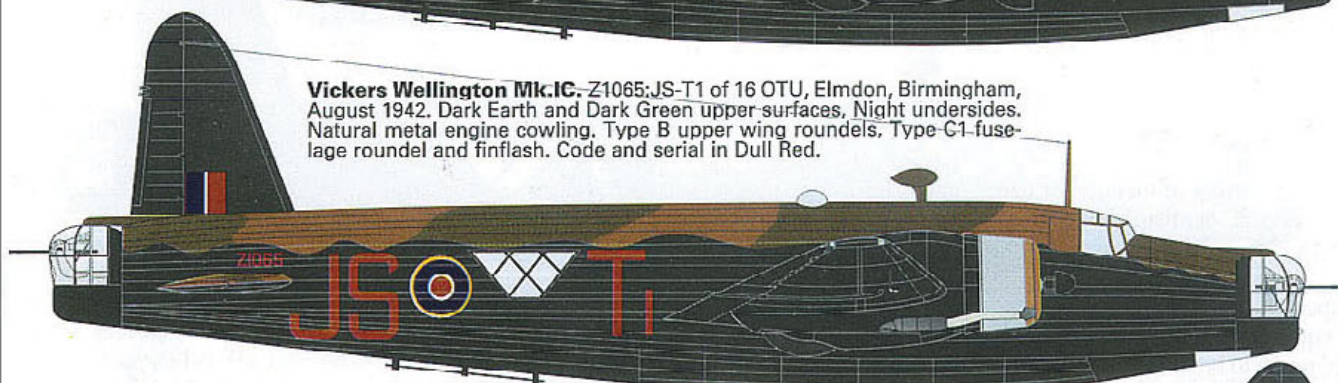
Vickers Wellington Mk. III. Z1572:VR-Q of No. 419 (Moose) Squadron, RCAF, May 1942. Dark Earth and Dark Green upper surfaces, Night undersides. Type-B roundels above wings, Type C1 finflash and fuselage roundel. Serial and code in Dull Red. (See photo on page 1)



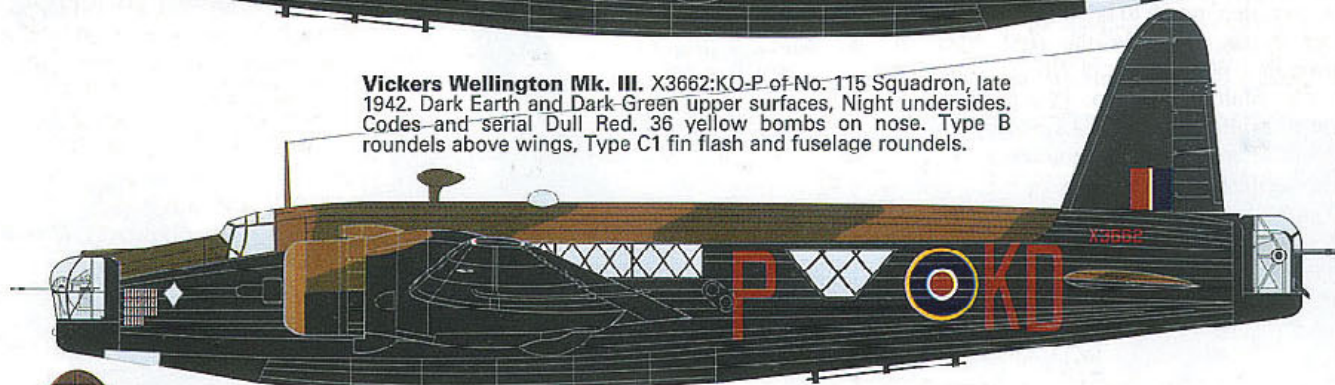
Vickers Wellington Mk. X. HF598:BH-E of No. 300 (Masovian) Polish Squadron, summer 1943. Dark Earth and Dark Green upper surfaces, Night undersides. Type B roundel above wings, Type C1 fuselage roundel and finflash. Serial and code in Dull Red.



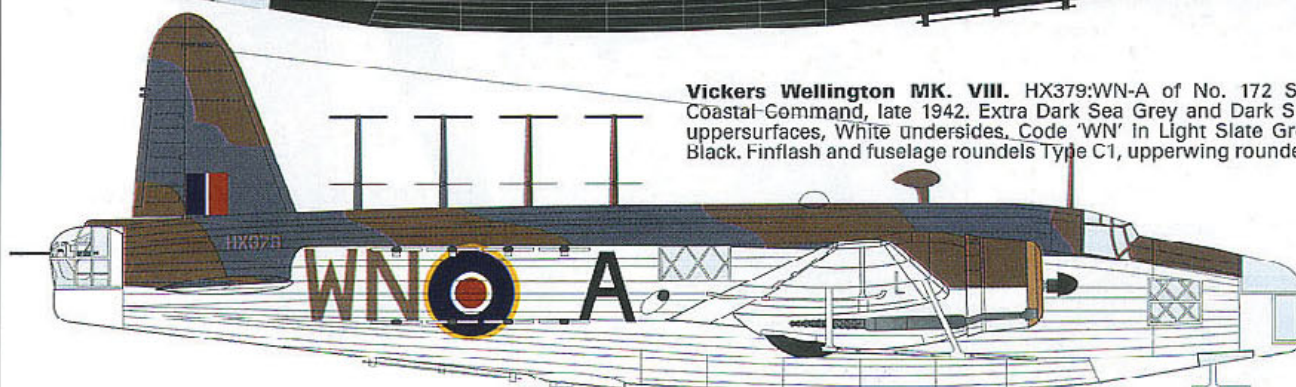
Vickers Wellington Mk. IC. Z1065:JS-T1 of 16 OTU, Elmdon, Birmingham, August 1942. Dark Earth and Dark Green upper surfaces, Night undersides. Natural metal engine cowlings. Type B upper wing roundels, Type C1 fuselage roundel and finflash. Code and serial in Dull Red.



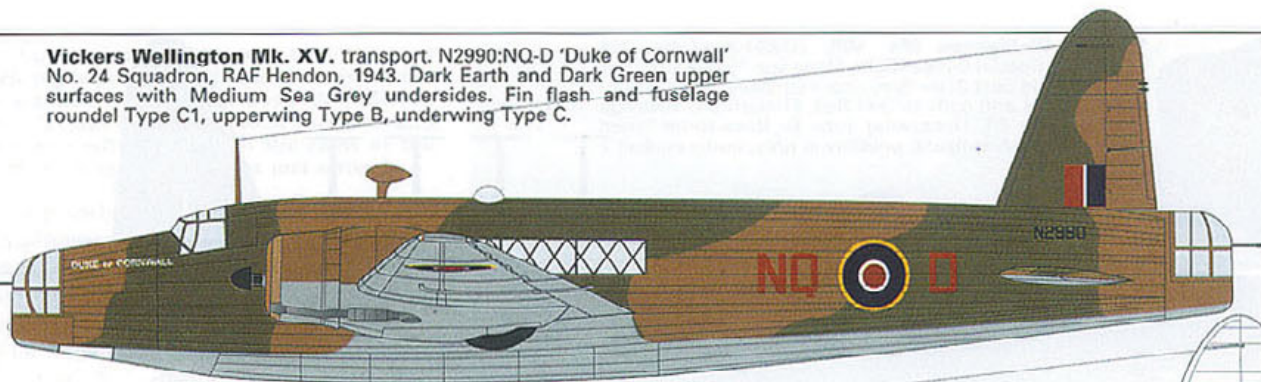
Vickers Wellington Mk. III. X3662:KO-P of No. 115 Squadron, late 1942. Dark Earth and Dark Green upper surfaces, Night undersides. Codes and serial Dull Red. 36 yellow bombs on nose. Type B roundels above wings, Type C1 fin flash and fuselage roundels.



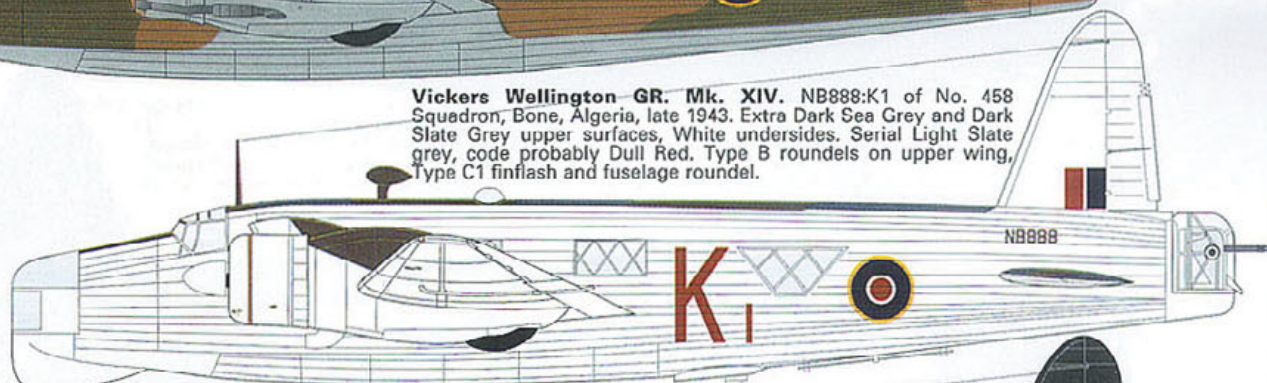
Vickers Wellington Mk. VIII. HX379:WN-A of No. 172 Squadron, Coastal Command, late 1942. Extra Dark Sea Grey and Dark Slate Grey upper surfaces, White undersides. Code 'WN' in Light Slate Grey, 'A' in Black. Finflash and fuselage roundels Type C1, upperwing roundel Type B.



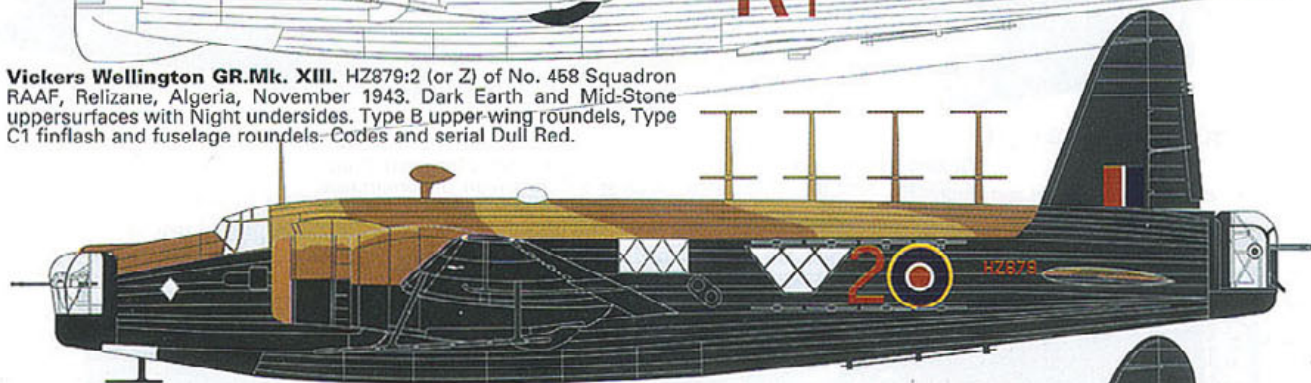
Vickers Wellington Mk. XV. transport. N2990:NQ-D 'Duke of Cornwall' No. 24 Squadron, RAF Hendon, 1943. Dark Earth and Dark Green upper surfaces with Medium Sea Grey undersides. Fin flash and fuselage roundel Type C1, upperwing Type B, underwing Type C.



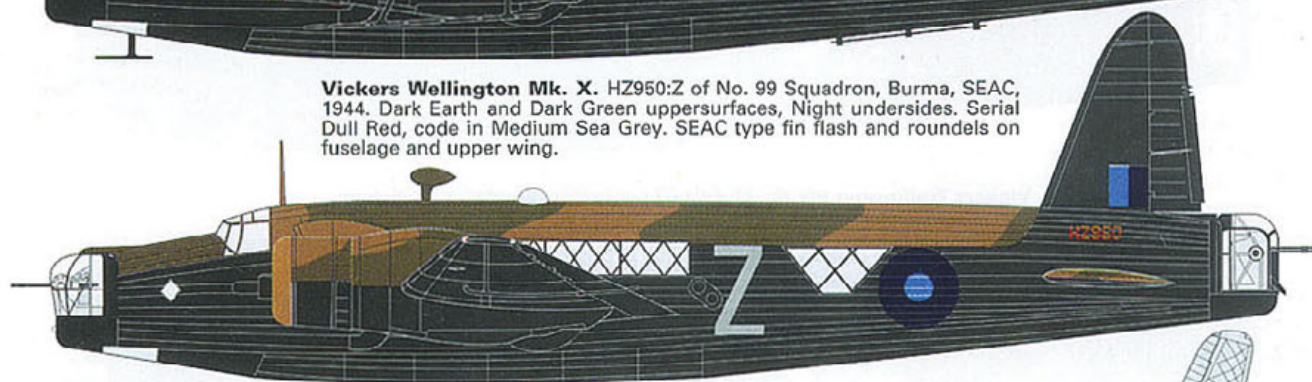
Vickers Wellington GR. Mk. XIV. NB888:K1 of No. 458 Squadron, Bone, Algeria, late 1943. Extra Dark Sea Grey and Dark Slate Grey upper surfaces, White undersides. Serial Light Slate grey, code probably Dull Red. Type B roundels on upper wing, Type C1 finflash and fuselage roundel.



Vickers Wellington GR. Mk. XIII. HZ879:2 (or Z) of No. 458 Squadron RAAF, Relizane, Algeria, November 1943. Dark Earth and Mid-Stone uppersurfaces with Night undersides. Type B upper wing roundels, Type C1 finflash and fuselage roundels. Codes and serial Dull Red.



Vickers Wellington Mk. X. HZ950:Z of No. 99 Squadron, Burma, SEAC, 1944. Dark Earth and Dark Green uppersurfaces, Night undersides. Serial Dull Red, code in Medium Sea Grey. SEAC type fin flash and roundels on fuselage and upper wing.

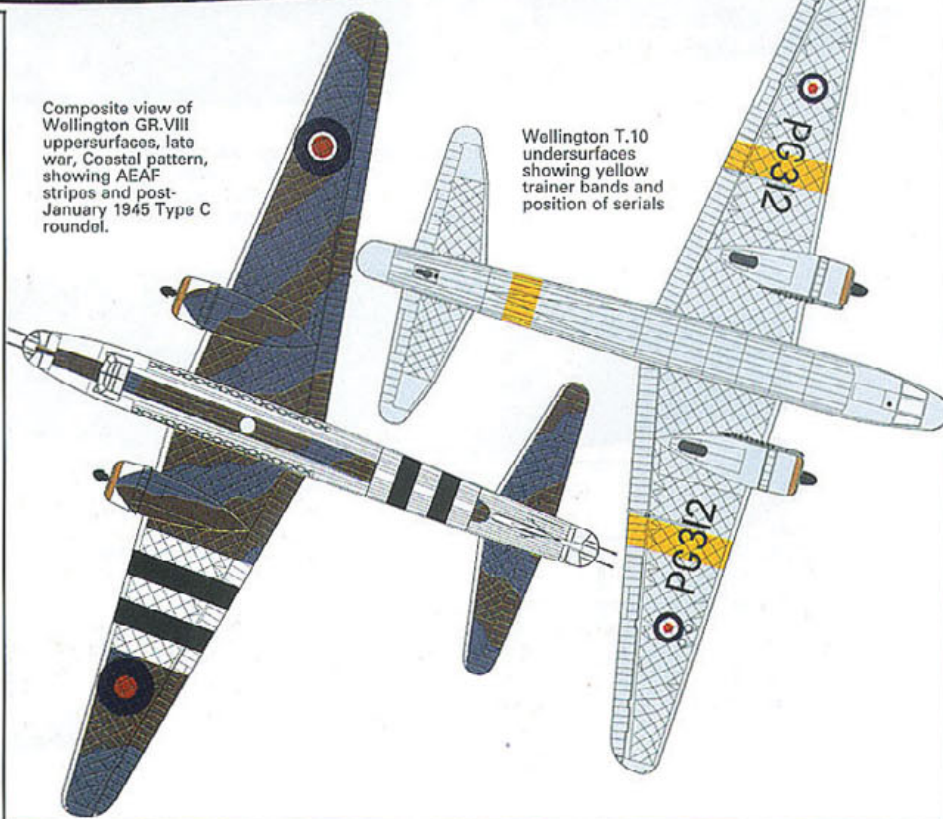


By September 1940 No. 70 Squadron started to be re-equipped with Wellingtons, 11 arriving that month to be followed by others later in the year. In the first week of November Wellingtons of No. 37 Squadron flew to Malta whilst No. 38 Squadron was sent to reinforce No. 70 which had already started to make a name for itself in night raids against enemy targets.

During the Greek campaign an initial batch of six Wellingtons from No. 70 Squadron went to help out for the brief period before the German attack through the Balkans. A few Wellingtons were also involved in the Iraqi coup which threatened RAF interests at Habbaniya in that country. Meanwhile the desert war flowed to and fro with Wellington squadrons, like all of the others in the air war, countering the newly-formed Afrika Korps and trying to do it in penny numbers. The resources of the Wellington ground and air crews in constant moves, the availability of spares and enemy attacks drained their ability to give better support to the army than they did.

With Italy in the war and the direct route through the Mediterranean, hazardous, a new route had to be found instead of the long haul round southern Africa. This was even-

Composite view of Wellington GR.VIII uppersurfaces, late war, Coastal pattern, showing ARAF stripes and post-January 1945 Type C roundel.



Wellington T.10 undersurfaces showing yellow trainer bands and position of serials

No. 304 Squadron was a Polish unit operating with Coastal Command. Based at Chivenor, when this picture was taken in February 1944, the aircraft is a GR. XIV.

usually established at Takoradi in the Gold Coast and from there over the sparsely populated areas of central Africa to Khartoum some 3,700 miles away. Other Wellingtons were flown direct to the Middle East with stops at Gibraltar and then Malta. This had a double purpose as urgently needed supplies, albeit in limited quantities, were flown in at night by Wellington crews en route to a more offensive role in the desert.

The Wellingtons ranged over the Western Desert attacking targets at Benghazi, Tripoli and tactical targets in the desert such as enemy airfields. They also went further afield with Italian cities, such as Naples, being frequently raided. Losses were suffered particularly by the aircraft based at Malta as a Wellington was a fairly easy target to hit compared to a much smaller fighter.

A detached Flight of six Wellingtons from UK-based No. 109 Squadron went to Shallufa and came into existence for radio counter-measures tasks at the end of October 1941. This Flight was eventually reformed as No. 162 Squadron which continued with the same role and aircraft until September 1944 when it was disbanded.

Wellingtons of No. 38 Squadron were modified as torpedo dropping aircraft and a series of trials were held in December 1941. The forward gun turret was removed and the bomb bay modified to take two Mk. XII naval torpedoes mounted vertically. Attacks on enemy convoys supplying their troops in North Africa began early in 1942. Later ASV radar-equipped Wellingtons joined the battle and provided long range search capabilities pin-pointing targets for their torpedo carrying equivalents.

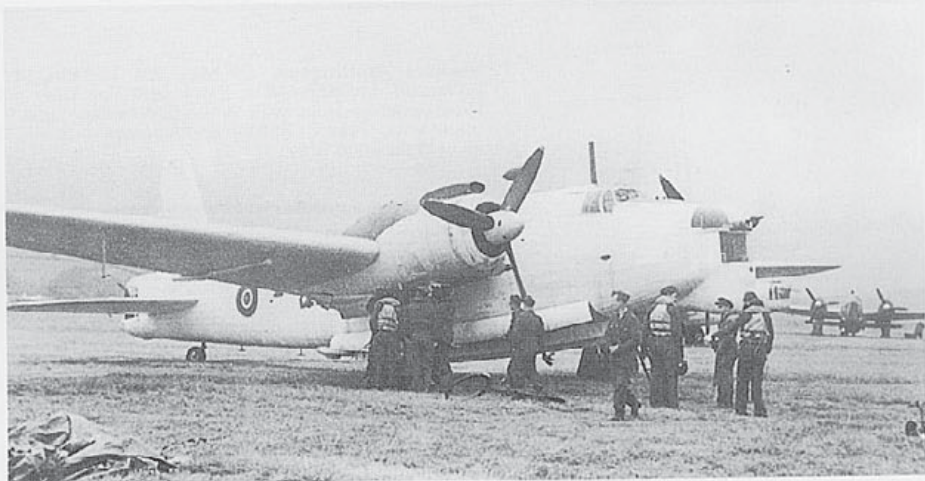
OPERATION TORCH AND BEYOND

The Allied invasion of French North Africa and the subsequent collapse of German and Italian forces in Tunisia gave further opportunities for the deployment of Wellington squadrons. Nos. 142 and 150 Squadrons flew out from the UK to be based initially at Blida. Their main target was Bizerta but they also bombed targets in Sicily and Italy itself.

To assist in the invasion of Sicily a Wing consisting of RCAF squadrons Nos. 420, 424 and 425 all formerly with Bomber Command had by then arrived in Tunisia. The Wing mounted many operations in support of the invasion and the Wellington became the main medium bomber for Middle East forces only to be replaced by Liberators in several squadrons in 1944, others being disbanded. They followed the land forces up the Italian peninsula operating for the most part from Foggia airfield near Naples.

WELLINGTONS OVER BURMA

Two squadrons stand out in the operations Wellingtons continued to serve in Coastal Command in the post-war period. These four GR. IVs belong to No. 38 Squadron based in Malta. Note the squadron badge on the nose of the nearest aircraft. (RAF Museum)



conducted by Wellingtons over the India-Burma front. These were Nos. 99 and 215 Squadrons which were sent to the theatre in early 1942 when sufficient aircraft were being produced for home and Middle East needs.

Initially based in India in a number of separate detachments, No. 99 Squadron, the first to become operational, was eventually based at Pandaveswar and later in October 1942 at Digri where they were actively integrated into full operations against the Japanese.

No. 215 Squadron first assembled at Asansol but, like No. 99, took quite a while before a full complement of aircraft were available, mainly due to syphoning off of several aircraft destined for India, on the long haul through the Middle East, by other squadrons and higher authority commandeering them as they passed through. Eventually the squadron joined up with No. 99 at Pandaveswar but later both moved again this time to Jessore as No. 175 Wing in May 1943.

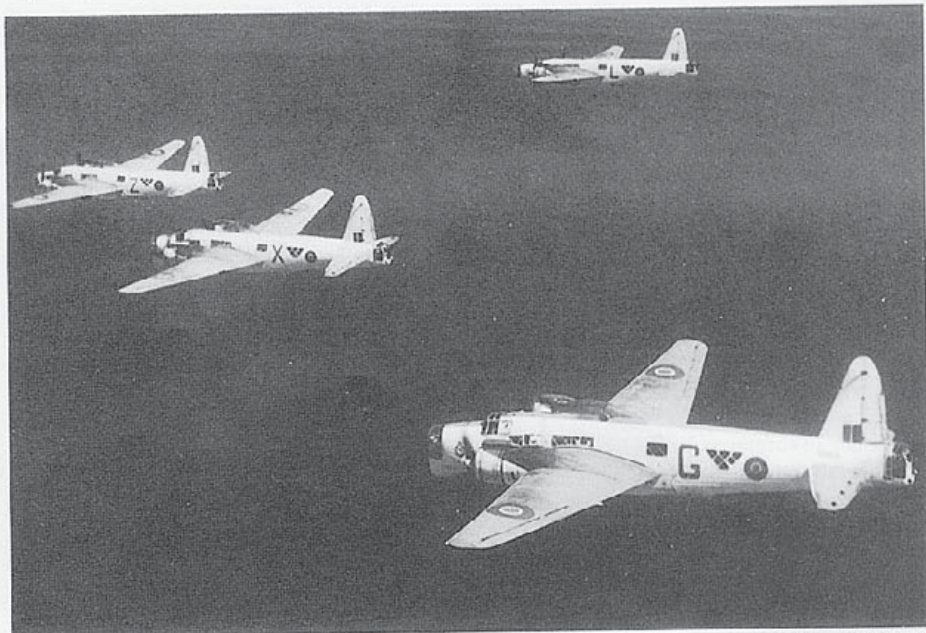
Expected to provide the nucleus of a night strategic bombing force for operations over Burma the Wing attacked Japanese communications by rail, river and road but often they were used to shift quantities of freight for the army.

With the formation of SEAC in August 1943 the Anglo-American forces, under the direction of Lord Louis Mountbatten, formed a joint policy of administration and opera-

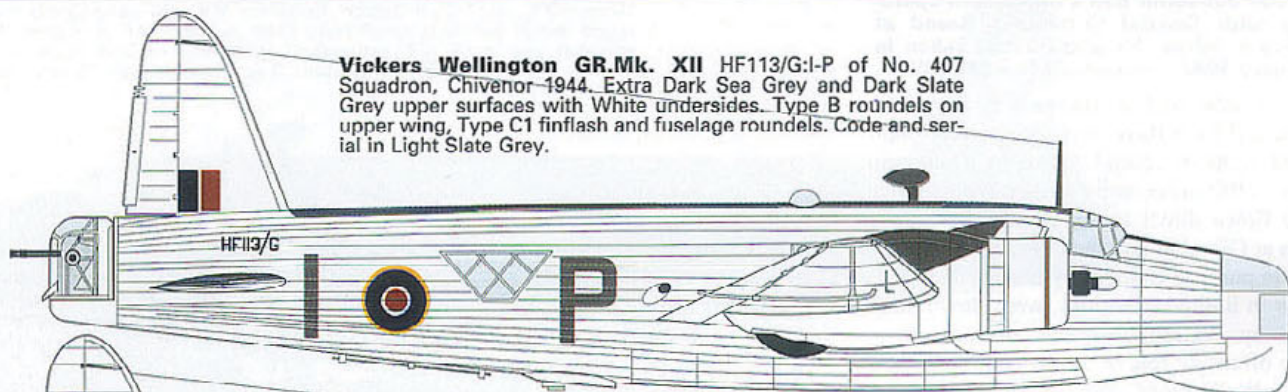
tional control which was set up with wide reaching powers. Hence No. 8 Squadron at Khormaksar, Aden and No. 244 Squadron at Sharjah with its detachment at Masirah came under the control of SEAC. These two Wellington squadrons were primarily engaged in over-water reconnaissance of the Indian Ocean and were equipped with Mk. XIIIIs for that purpose. Another maritime Wellington squadron, No. 621 was formed at Port Reitz, Kenya, in September 1943 but this moved to Aden with various detachments along the southern Arabian coastline. Whilst U-boat activity in the area never really reached the headlines there were frequent sightings and attacks. On 2 May 1944 a Wellington of No. 621 Squadron contacted and later helped in the sinking of U-852.

The final maritime squadron of Wellingtons in the area was No. 203 which was based at Santa Cruz. As the extent of U-boat operations diminished in the Indian Ocean Nos. 8 and 244 Squadrons were disbanded, No. 203 exchanged Wellingtons for Liberators and No. 621 went back to Middle East Command and converted to Warwicks.

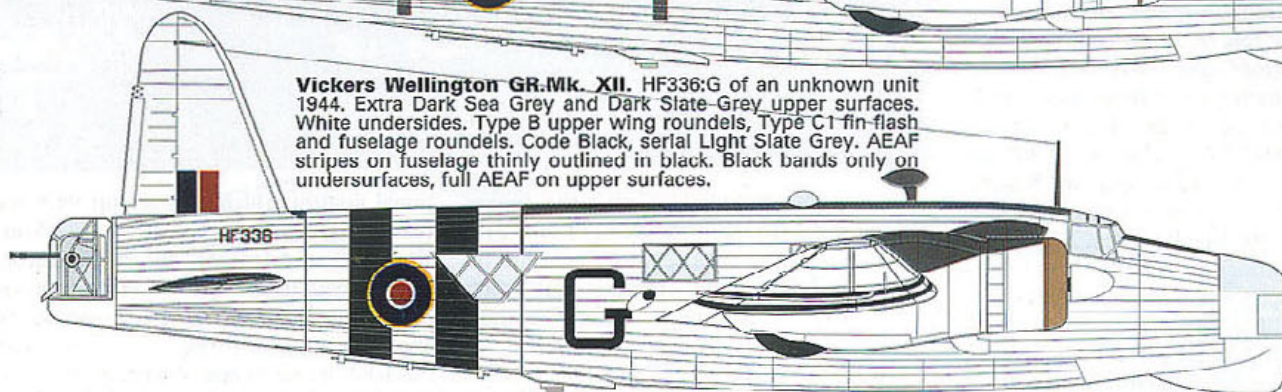
Typical of the variety of operations conducted by the India-Burma based Wellingtons was when the crucial Battle of Imphal was at its height from March to July 1944. Instead of actually dropping bombs during this campaign the Wellingtons of both Nos. 99 and 215 Squadrons were employed in freighting 250-lb bombs to



Vickers Wellington GR.Mk. XII HF113/G-P of No. 407 Squadron, Chivenor-1944. Extra Dark Sea Grey and Dark Slate Grey upper surfaces with White undersides. Type B roundels on upper wing, Type C1 finflash and fuselage roundels. Code and serial in Light Slate Grey.



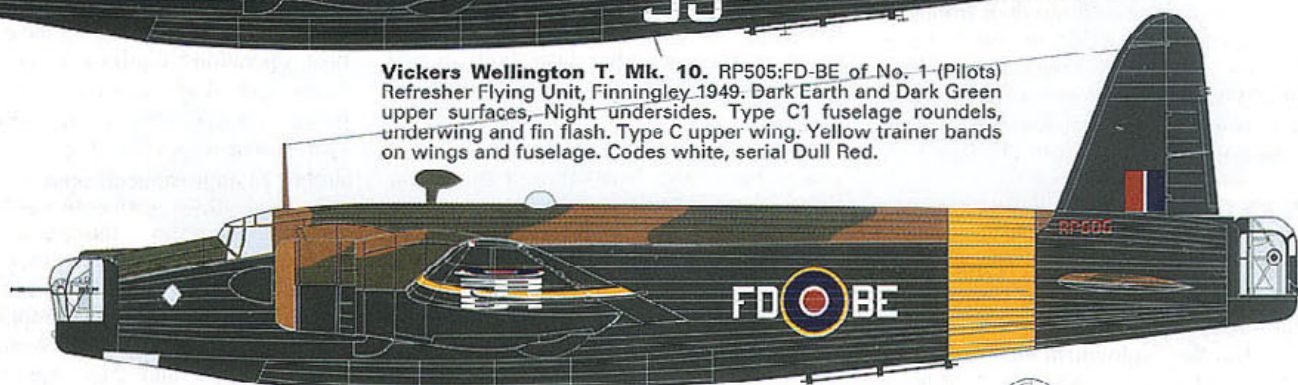
Vickers Wellington GR.Mk. XII HF336/G of an unknown unit 1944. Extra Dark Sea Grey and Dark Slate Grey upper surfaces. White undersides. Type B upper wing roundels, Type C1 fin-flash and fuselage roundels. Code Black, serial Light Slate Grey. AEF stripes on fuselage thinly outlined in black. Black bands only on undersurfaces, full AEF on upper surfaces.



Vickers Wellington Mk. XVIII NC869:35 of No. 51 OTU, April 1945. Dark Green and Dark Earth uppersurfaces with Night undersides. Type B roundels upper wing, Type C1 fuselage sides and fin flash. White code, Dull Red serial. '35' repeated on nose under radome in White.



Vickers Wellington T. Mk. 10 RP505:FD-BE of No. 1-(Pilots) Refresher Flying Unit, Finningley-1949. Dark Earth and Dark Green upper surfaces, Night undersides. Type C1 fuselage roundels, underwing and fin flash. Type C upper wing. Yellow trainer bands on wings and fuselage. Codes white, serial Dull Red.

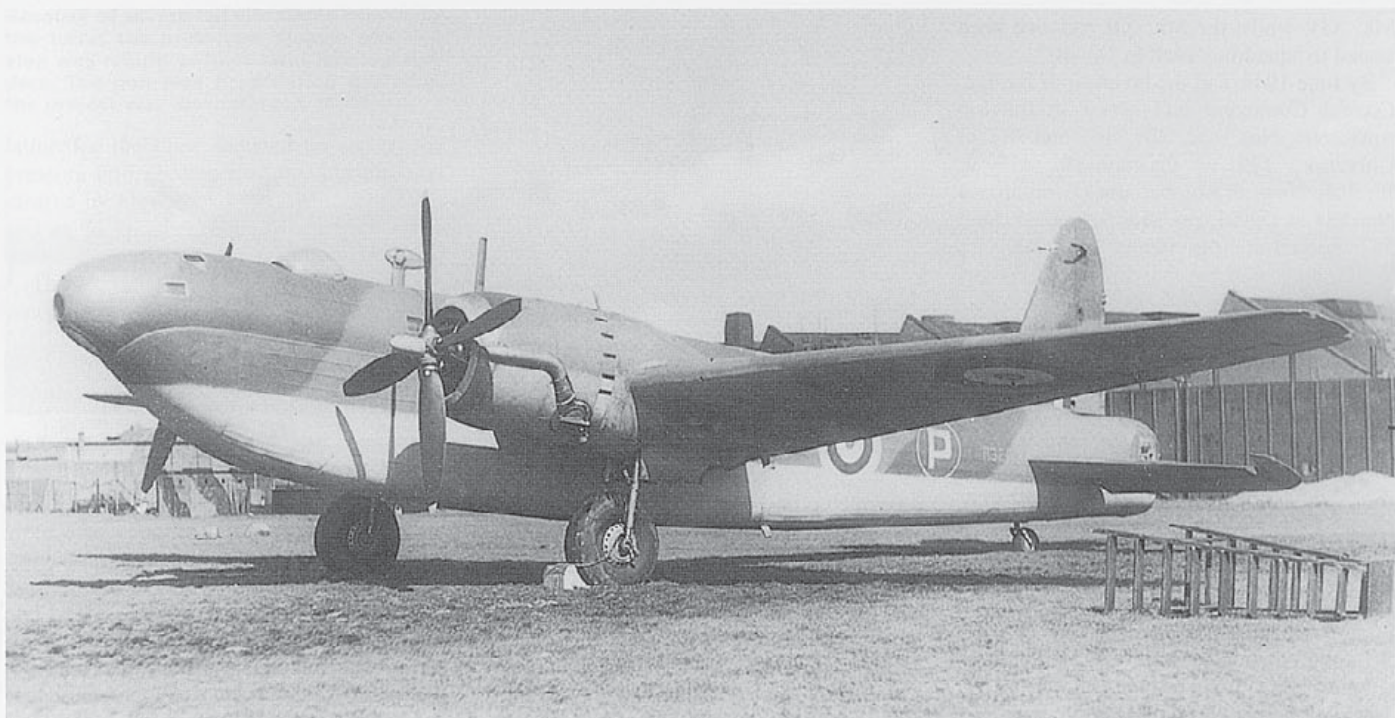


Vickers Wellington GR. Mk. XI HZ361:L8-B of 765 Squadron, Fleet Air Arm, Lee-on-Solent, 1945. Extra Dark Sea Grey and Dark Slate Grey upper surfaces with White undersides. Type C upper wing roundel. Type C1 fin flash and fuselage roundels. Codes and serial Light Slate Grey.



Vickers Wellington Mk. X NC750:FF-SB of No. 10 Air Navigation School, October 1946. Dark Earth and Dark Green upper surfaces, Night undersides. Type C1 roundel on fuselage sides and probably underwing. Yellow trainer bands on wings and panel on fuselage. Black codes.





The Wellington V was the first high altitude development. It had a bubble canopy and supercharged Hercules engines driving four-bladed propellers. (IWM)

the Hurricane squadrons who were engaged in the battle at far closer quarters than Wellingtons could achieve. Both squadrons carried stocks of bombs from Jessore to Kumbhirgram where they were quickly used. In spite of poor weather conditions and the ever present possibility of interception by Japanese fighters only one Wellington was lost to enemy fighters. The Wellingtons then returned to their normal long range bombing duties but the worst was over and with the Burma campaign in its final phases the task was taken over by B-24 Liberators in November 1944.

WEBFOOTED WELLINGTONS

The advent of Air-to-Surface Vessel (ASV) radar and the development of the airborne searchlight known as the Leigh Light also brought a new role for the Wellington. The combination was first introduced on Wellington P9223, one of the original DWI magnetic mine aircraft. It was redesignated DWI Mk. III to disguise its new role at the end of February 1941.

Two systems were tried, one, the Leigh Light already mentioned and the other developed by Squadron Leader Helmore at the Air Ministry. The former was adopted and the new version of the Wellington, known as the Mk. VIII came into production with the light itself being positioned where the original ventral turret under the rear fuselage was situated.

This version retained the broomstick acrias on the rear fuselage and under the wings, but later marks were fitted with a new centimetric radar which was housed in a chin mounted radome under a clear perspex nose in which the Leigh Light operator sat.

These aircraft did much in the winning of the Battle of the Atlantic. U-boats were no longer able to transit the Bay of Biscay on the surface at night and they responded by the fitment of a wide array of their own detection radar and a battery of anti-aircraft guns.

To introduce the Wellington Mk. VIII into service with Coastal Command No. 1417 Flight was established at Chivenor on 18 March 1942. It was later retitled No. 172 Squadron and made its first operation on the night of 2-3 June 1942. It was immediately successful, Squadron Leader Jeff Greswell flying ES986F, badly damaging the Italian

submarine *Luigi Torelli* off the coast of Portugal that same night.

Several U-boats were illuminated on the surface during the following month but it was not until 5 July that Pilot Officer W. Howell caught U-502 and sank it with all hands.

A detachment from No. 172 Squadron was sent to Skitten in Scotland which on 1 September attained full squadron status as No. 179 sharing the airfield with a squadron of torpedo carrying Hampdens.

Other squadrons had previously used Wellingtons without the additions available on the Mk. VIII. These included No. 221 Squadron, initially at Bircham Newton in 1940 and then with succeeding marks of the aircraft as improvements appeared.

Two squadrons of Czechs were transferred from Bomber Command, namely Nos. 304 and 311 Squadrons to help cope with the demand for anti-submarine operations, in April 1942. Starting operations in either Northern Ireland or the outer-isles of Scotland they were transferred south to take on the Biscay U-boats but also met strong opposition from enemy long range fighters. By the end of 1942 No. 304 Squadron had flown some 4,500 operational hours and attacked no less than nine U-boats up until that time.

Three more squadrons were established within Coastal Command shortly thereafter. These were No. 547 Squadron at Holmesley South, No. 612 Squadron at Wick and No. 544 Squadron at Gibraltar. A year later in January 1943 a Canadian squadron, No. 407, formed at Docking, Norfolk after having flown Hudsons.

LATER VERSIONS

In August 1943 further improved maritime versions of the Wellington were developed. No. 172 Squadron was the first to receive the **The Wellington VI used the Merlin engine and had a revised astrodome type of cockpit arrangement. A total of 63 production aircraft were built but only No. 109 Squadron used them for Oboe trials. (IWM)**



Mk. XIV whilst the Mk. XII had also been issued to squadrons such as No. 407.

By June 1944, and the invasion of Europe, Coastal Command had seven Wellington squadrons, Nos. 172, 304, 407 and 612 at Chivenor, 179 at Predannack, 415 at Bircham Newton and the most recent arrival No. 524 at Davidstow Moor. Nos. 311 and 547 Squadrons previously equipped with Wellingtons had by that time been issued with Liberators.

The approaches to the English Channel from both the North Sea and the Bay of Biscay had to be patrolled by an increasing number of ASV equipped aircraft to prevent incursions by either U-boats or surface vessels against the masses of shipping then crossing to Normandy. These were known as 'Cork' patrols and covered an area of 20,000 square miles of sea with about 400 aircraft all told.

The Germans mustered a force of 15 U-boats half of which were fitted with the Schnorkel device so that they could remain submerged whilst re-charging batteries. They soon met with opposition from the many aircraft waiting for them. Three, U-415, U-256 and U-989 were attacked by Wellingtons and forced to abandon their mission. Two others were seriously damaged including U-971 and U-270 and later in the month U-441 was sunk by a No. 304 Squadron crew in HF331:A. This was followed in August by Wellington NB798:B of No. 172 Squadron making a night attack on U-534 in the Bay which was ready for the assault and shot the aircraft down into the sea. The crew, four of whom survived, were in the water for 14 hours before being picked up by a Sunderland from No. 10 Squadron RAAF.

By September 1944 with all of France liberated and the Allied armies well established in Belgium the need for vigilance over the Bay of Biscay considerably lessened. Several squadrons moved to either Northern Ireland or Scotland but the closing months of



Wellington Mk. II L4250 was modified to have a single Vickers 40-mm cannon fitted on the rear fuselage. This view shows it with the original single fin and rudder.

the war still saw successes. On 30 December U-772 was destroyed by Wellington NB855:L of No. 407 Squadron and honours for the last Wellington U-boat sinking went to HF329:Y of No. 304 Squadron when U-321 was destroyed on 2 April 1945.

To quote the statistics of only one squadron, No. 304, it was seen that they flew no less than 21,331 operational flying hours, attacked 34 U-boats but lost 106 aircrew during the period.

With the end of the war almost all of Coastal Command's eight remaining Wellington squadrons were disbanded by mid-1947, one converted to Warwicks and one transferred to Transport Command thus ending a considerable contribution to winning the war at sea.

HIGH ALTITUDE WELLINGTONS

Several of the earlier versions of the Wellington were adapted for high altitude flying. Both the Mk. V and VI with either Hercules VIII or Merlin 60 engines respectively, were fitted with large pressure cabins and the fuselage outline considerably changed.

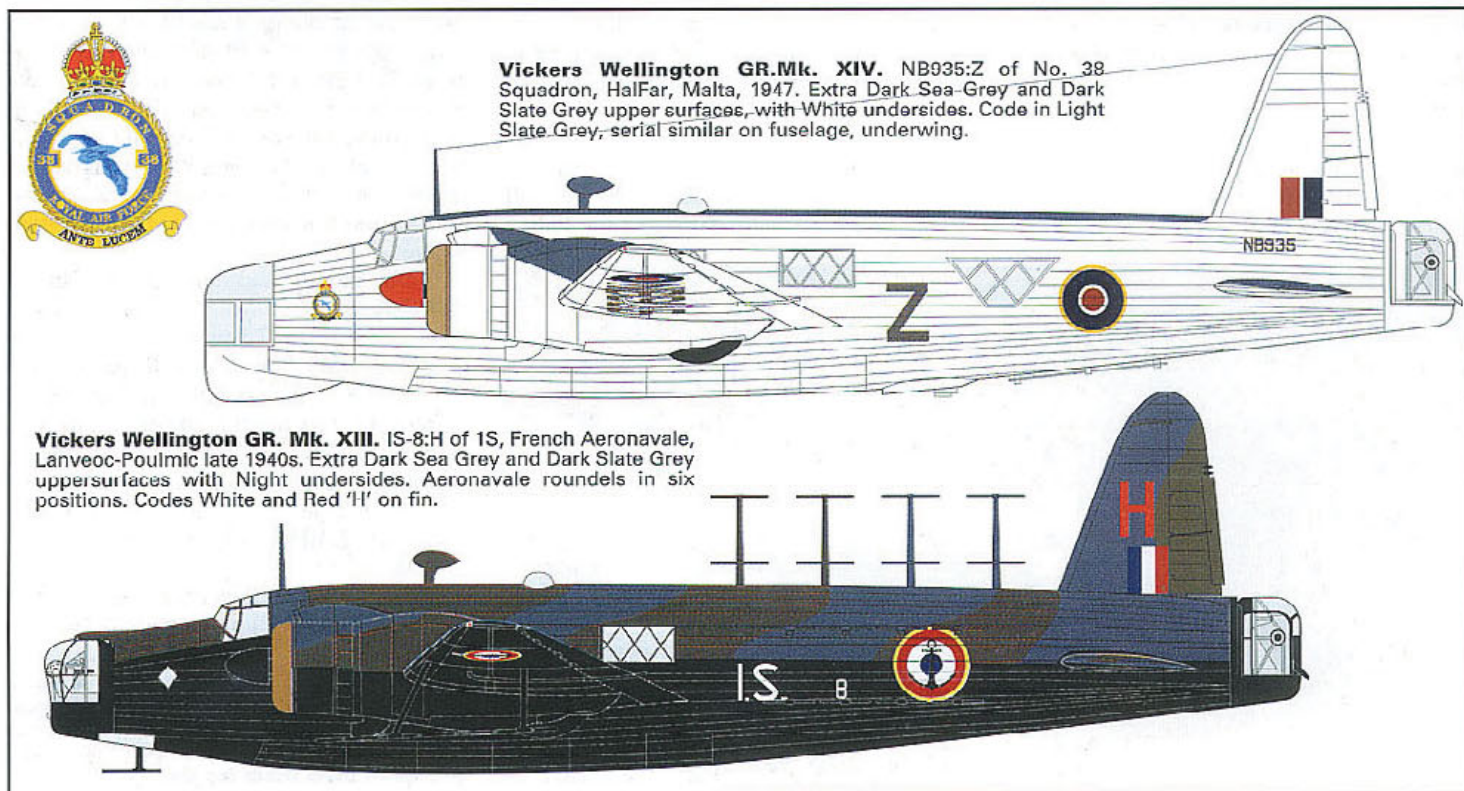
Experiments were first suggested in 1939 when the Air Ministry asked Vickers to investigate the possibilities of flying a Wellington up to 35,000 ft operational alti-

tude with the ultimate aim of reaching 40,000 ft, a height previously unheard of for a bomber aircraft.

Very little previous experience, apart from the pre-war height records achieved by the Bristol 138, had been attempted until that date and because of their work in the civil field of producing an airliner to fly at those sort of heights, both Shorts and Fairey were brought into the consortium.

Preliminary requirements were for a bomb load of 1,000-lbs and that the aircraft should fly towards its target at some 15,000 ft and then climb to operational altitude after that, descending on the way back from the target to more normal altitudes for bombers of that era.

After the fall of France, the Wellington V was placed high on the list of priorities for production and the Hercules engine adapted to take an exhaust supercharger. The first machine R3298, although built at Weybridge was sent to Blackpool for further testing during the Battle of Britain arriving on 25 September 1940 with the first altitude test being made on 21 October when a height of 20,000 ft was reached. Early flights were curtailed because the astrodome type instal-



Vickers Wellington GR.Mk. XIV. NB935:Z of No. 38 Squadron, HalFar, Malta, 1947. Extra Dark Sea-Grey and Dark Slate Grey upper surfaces, with White undersides. Code in Light Slate Grey, serial similar on fuselage, underwing.

Vickers Wellington GR. Mk. XIII. IS-8:H of 1S, French Aeronavale, Lanveoc-Poulmic late 1940s. Extra Dark Sea Grey and Dark Slate Grey upper surfaces with Night undersides. Aeronavale roundels in six positions. Codes White and Red 'H' on fin.

Because of severe tail vibrations caused by the turret the prototype Vickers gun version was rebuilt to have twin fins and rudders. The gun was fired during trials but the project was discontinued. (IWM)

lation for the pilot, situated on top of the pressure hull became iced up but this was cleared by blowing hot air over the interior and on 31 October, 30,000 ft was achieved for the first time.

The Hercules engine did not develop the power needed and thus the Mk. VI with the Merlin 60, was brought forward but not before 30 Mk. Vs had been ordered. These were disposed of and none saw service.

A great deal of work was done on these high altitude aircraft and as a result later aircraft like the Welkin and pressure cabin Spitfire were to benefit. The Americans who were also experimenting with this type of aircraft also learned a great deal from the work being done by Vickers, Rolls-Royce and by the A&AEE at Boscombe Down.

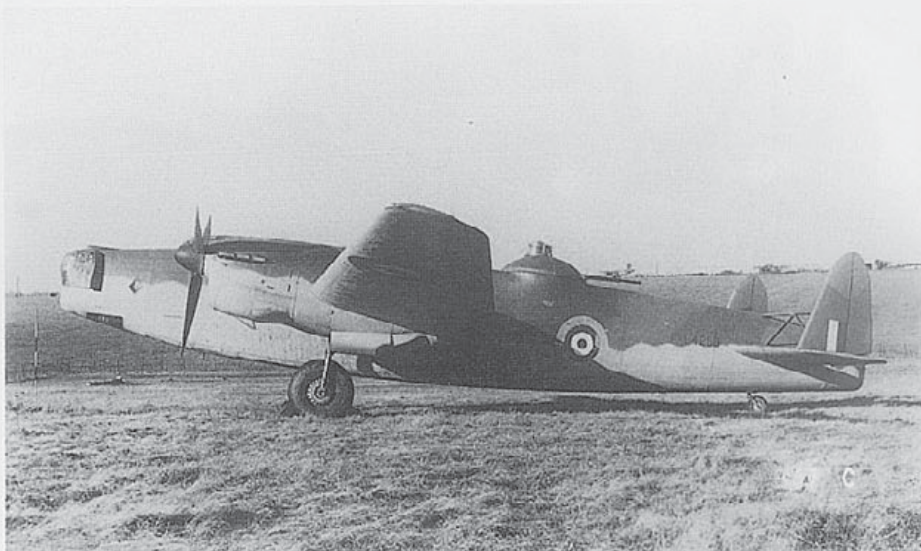
The Mk. VI was supposed to carry a 4,500-lb bomb load for 1,590 miles. Its crew consisted of a pilot, bomb aimer, navigator and wireless operator. The rear turret was remotely controlled being operated from the pressure cabin on an electro-magnetic principle.

In spite of all the good work that was done with these Wellingtons, Air Ministry policy changed, as by the latter end of 1942, the Mosquito was in production and even without a pressure cabin was able to operate at heights far in excess of normal bomber aircraft for both bombing and reconnaissance. The project was therefore dropped but the knowledge gained did much for the development of civil aircraft at the end of the war.

TRAINERS AND TEST BEDS

Although the Wellington remained in operational service with Coastal Command and in the Far East until the end of the war it was phased out of Bomber Command in 1943 with the advent of quantity production of the four-engined heavy bombers.

But the Wellington was to become a good operational trainer and with the arrival of the Mk. X which was an uprated Mk. III, the Operational Training Units found a good use for them. Occasionally they were used to



break in new crews by leaflet raids over shorter range enemy targets but in the main were relegated to getting the new boys ready for graduation onto an operational squadron.

The Mk. X remained in service long after the end of the war. The last units to have them were No. 201 Advanced Flying School at Swindon and the Air Navigation School which finally replaced theirs in 1953 with the arrival of either the Valetta T.3 or the Varsity.

Wellingtons also made good transport aircraft. No 24 Squadron based at Hendon used quite a number for trips to the Middle East. It was noted that although all of these aircraft had the nose and tail turrets removed, in many cases broomsticks were put in place with the turret canopies painted onto the appropriate places.

Wellingtons had in fact been used as transport aircraft early in the war as in 1942 British Overseas Airways used them though they were not given civil registrations. They had room for 16 passengers and the Corporation flew four Mk. ICs for about nine months. One was known to have been named 'The Duke of Rutland'.

The only civil-registered Wellington was a T. Mk. X RP468 which, in 1949, was fitted with a tail boom radar device and civil registered as G-ALUH to cover test flights over European countries.

The RAF was not the only air force to fly

Wellingtons. Between 1942 and 1946 the Fleet Air Arm used a handful for various training purposes. Wellingtons also served with two foreign air forces. In April 1946 eight were delivered to the Greek Air Force. In the same year the French acquired maritime versions buying 39 for the Aeronavale.

Experimental versions of the Wellington were many. Early in the war Mk. II L4250 was fitted with a 40 mm Vickers canon at Weybridge. This aircraft although originally having a single fin and rudder was later converted to twin fins. The gun was mounted on top of the fuselage and remotely controlled.

Other Wellingtons were used as engine test beds. The most interesting of these were probably three Mk. IIs, Z8570, W5389 and W5518 which were adapted to take the early Whittle designed jet engines. In each case the jet was mounted in the tail replacing the turret and extending the fuselage somewhat. The tests continued from July 1942 to 1945 and provided a wealth of data for future developments.

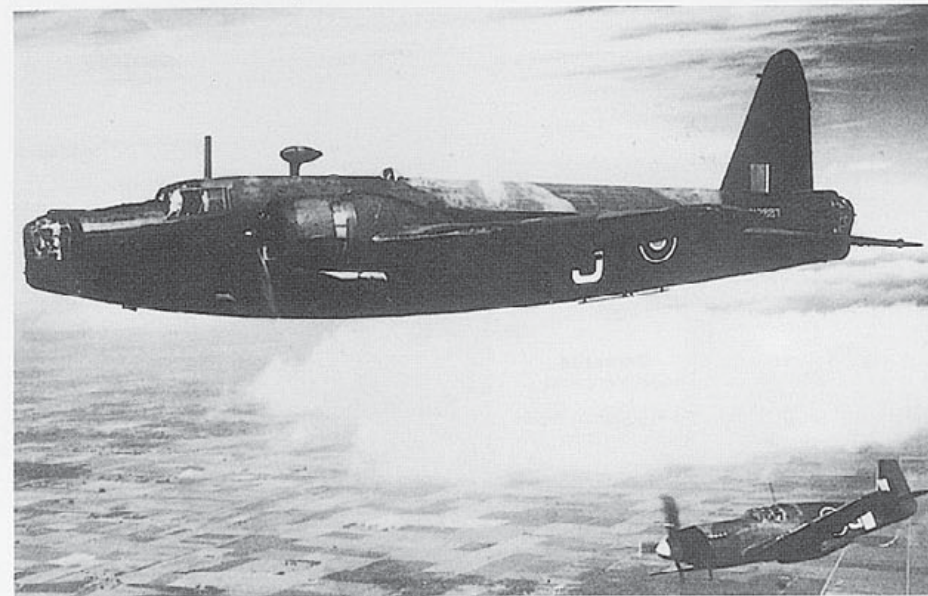
The Wellington continued as a test bed after the war with Mk. X LN715 acting as host aircraft for the first Dart turboprops two of which were mounted in place of the Hercules piston engines in 1948.

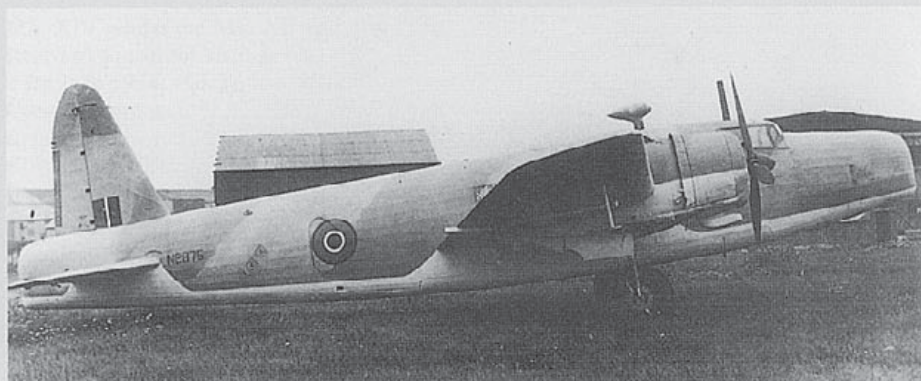
The exploits of Nos 99 and 215 Squadrons in the Far East have been recorded earlier but mention was not made of the fact that amongst the variety of jobs they undertook was the dropping of paratroops. Eight soldiers were carried by each aircraft which were dropped in sticks of four through the position which was originally intended for the ventral turret. Both Indian and Gurkha troops were trained at Rawalpindi but not used operationally.

In 1942 a Wellington Mk. III X3286 was modified for towing an Airtspeed Horsa glider but the additional weight did rather surprising things to the geodetic construction and the project abandoned.

Although Coastal Command fitted their Wellingtons with ASV radar it was not until after the war that they were converted into radar trainers for fighter crews. The Mosquito nose was welded onto the nose

Wellingtons were used for fighter and bomber affiliation training. Here a Mustang is seen in a stern chase of a Mk. III, as part of the OTU course. The Wellington, N2887, later went on to ferry duties before being struck off charge in April 1945.





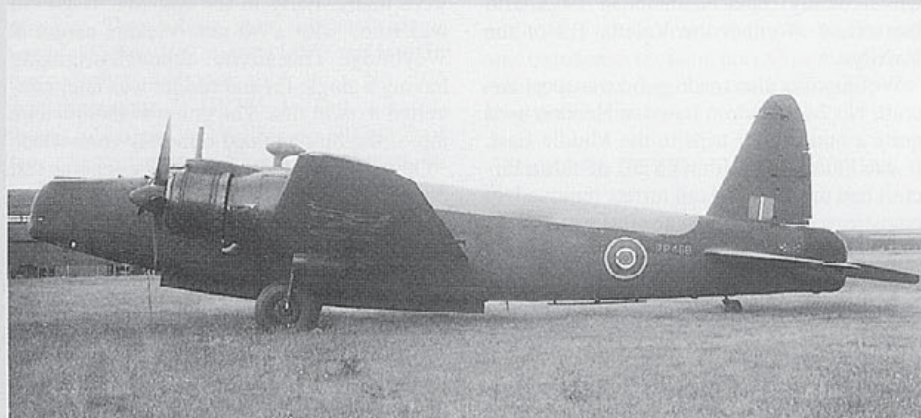
turret position and an SCR720 radar installed. The first of these was MP530 which was originally a Mk. XI but because of the modifications it was redesignated as a Mk. XVIII. A total of 80 were built at Blackpool in the post war period. The final version of the Wellington was the Mk. XIX which was basically an updated Mk. X trainer incorporating all of the latest equipment that was at that time coming into service.

The extraordinary variety of roles that the Wellington undertook both in front line and non-operational units is worthy of considerable study and not all of the variants have

A number of Wellington ICs were converted for freighting duties as the C.Mk.XVI. This is N 2875 thought to belong to No. 24 Squadron. (IWM)

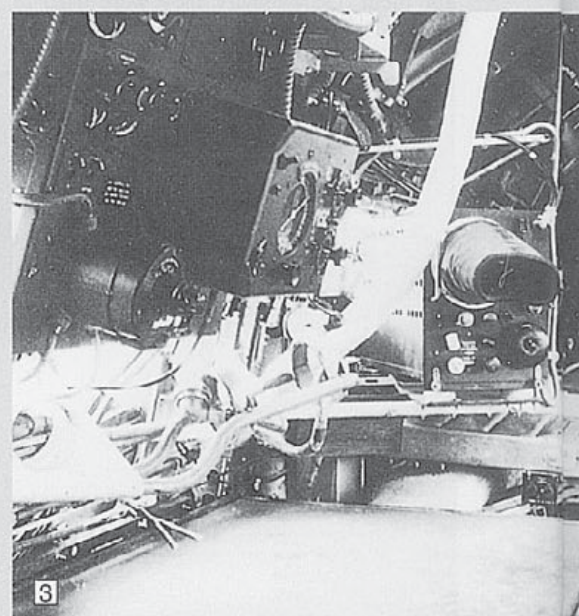
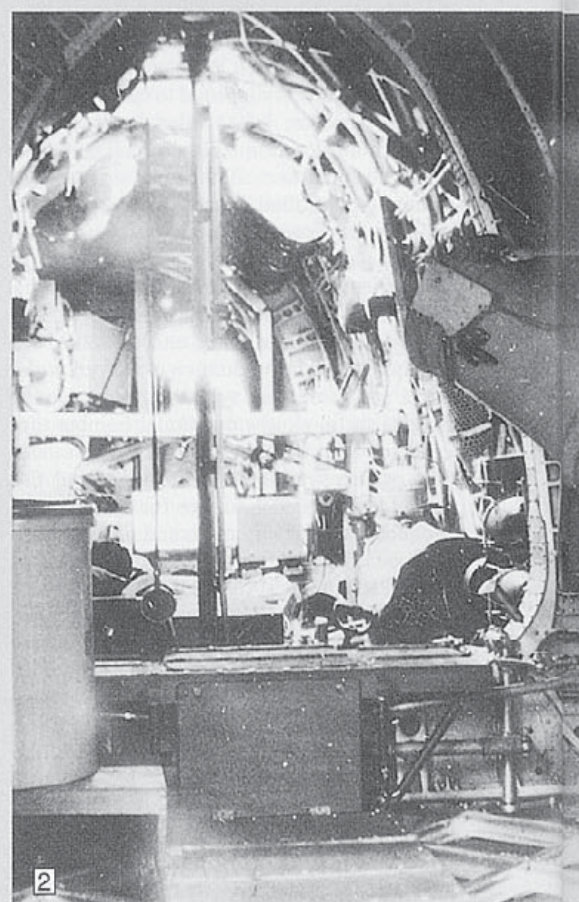
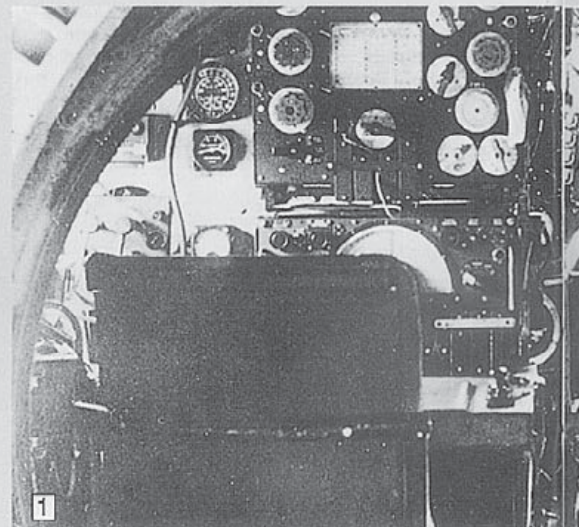
been listed here.

In all a total of 14,182 Wellingtons were actually ordered but with the end of the war many Contracts were curtailed and the actual production figures, including prototypes, was 11,460. This easily made the Wellington far ahead of any other bomber aircraft numerically and a considerable tribute to Barnes Wallis and the Vickers team that originally created it.



Above: Factory-fresh Wellington T.10 was eventually given civil registration as G-ALUH in July 1947. Below: Blackpool-built

Wellington T. XVIII was fitted with a radar nose similar to that on the Mosquito for training night fighter crews. (MAP)

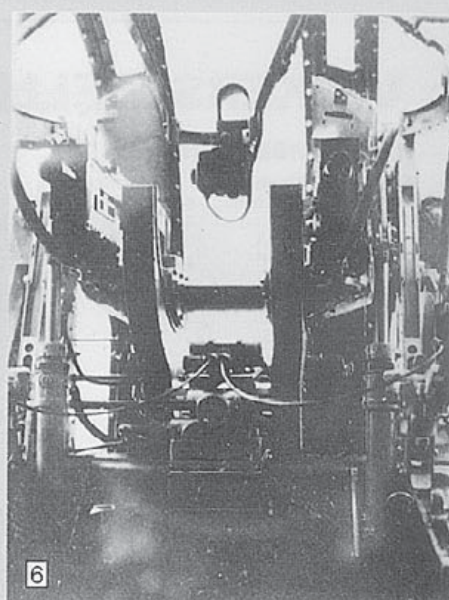
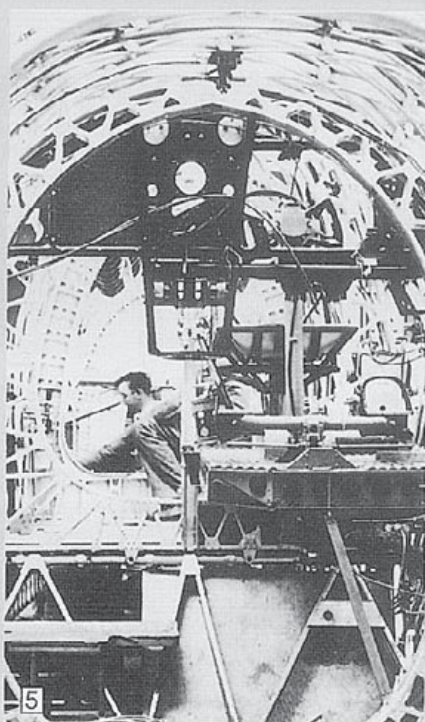
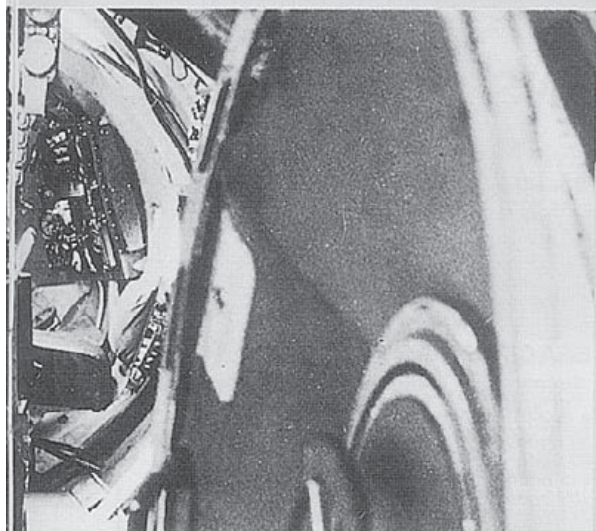


VICKERS WELLINGTON KITS AND ACCESSORIES

Compiled by David Hannant. Correct to July 1997

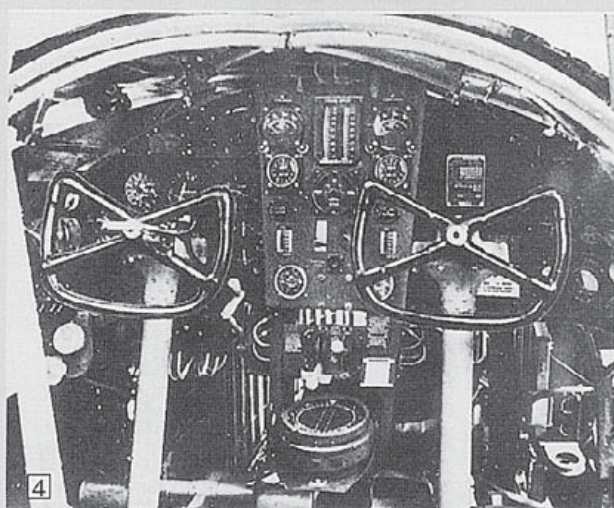
Scale	Type	Manufacturer	Reference	Remarks
1:72	Vickers Wellington Mk. I	Aeroclub	ABE049	Pegasus engines
1:72	Vickers Wellington Mk. III	Airfix	AX04001	
1:72	Vickers Wellington Mk. II/IV	Modelcraft Canada	MCT/2032	Ex-Frog/Novo Resin Merlin engines
1:72	Vickers Wellington Mk. I	Novo	NOV214	
1:72	Vickers Wellington B.X, GR.XIV	Matchbox	PK402	
1:72	Vickers Wellington Mk. Ic	Russian Frog	RF214	
1:48	Vickers Wellington	Sanger Engineering	SAN4839	
1:72	Vickers Wellington Mk. X	Squadron/Signal	SQS9172	Nose/tail turret

As far as is known there are no specialist sets of decals for any version of the Wellington

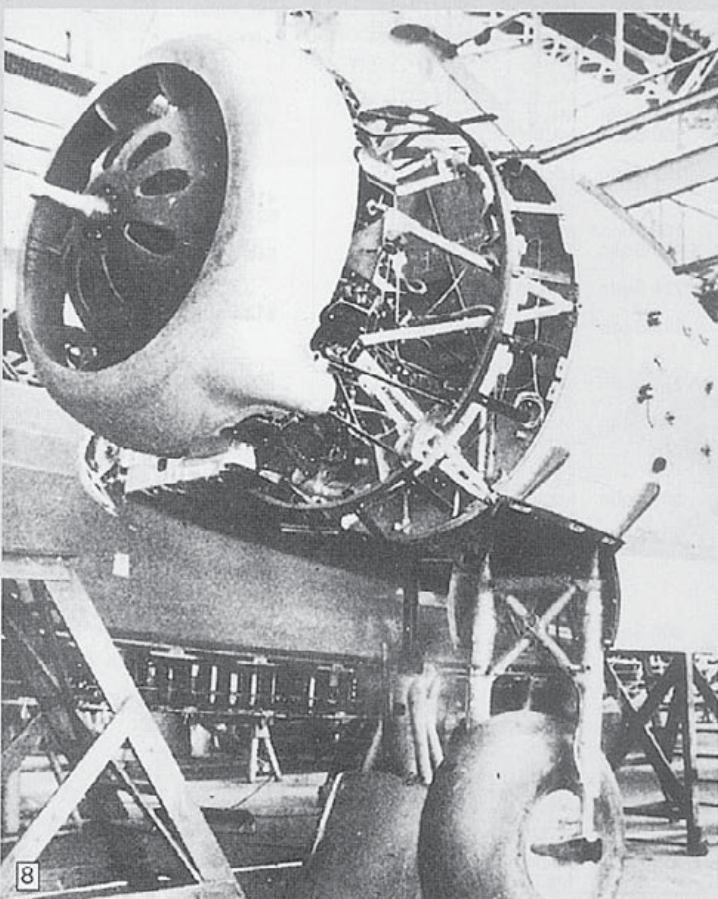
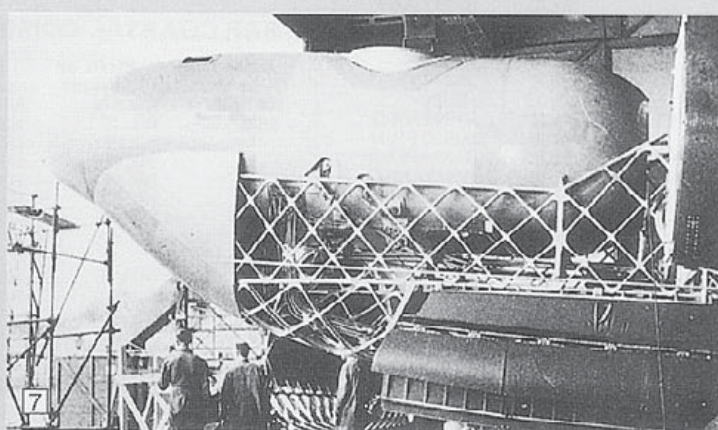


WELLINGTON IN DETAIL

Photographs from the Brooklands Museum



1. Interior of the Wellington Mk.V. The pressure cabin door is in the foreground, wireless operator and equipment, left and pilot through the right hand side gangway. 2. Interior, Mk. X looking aft. Elsan, left and flare chute right. 3. The cabin of the Wellington T.10 showing the student navigators stations in the foreground and other aids such as Gee in the centre. 4. The cockpit and instrument panel of a Wellington, mark not known. Engine instruments and throttles are in the centre. 8. Pegasus engine and undercarriage with the familiar cowling in front of the cylinders.



5. Wellington under construction showing the complications of the geodetic system covering the cockpit area. 6. The interior of the rear turret of a Mk. IC. 7. The high altitude pressure capsule attachments for the Wellington VI.

VICKERS WELLINGTON SQUADRONS AND UNITS

RAF BOMBER COMMAND

Squadron or unit	Mark or variant	Example serial/code
9 Sqn	Mk.I Mk.IA Mk.IC Mk.III	L4274:KA-K N2964:WS-D T2619:WS-T BJ606:WS-R
12 Sqn	Mk. II Mk.III	Z8328:PH-R BJ653:PH-H
15 Sqn	Mk.IC	T2806:LS-N
37 Sqn*	Mk.I Mk.IA Mk.IC Mk.III Mk.X	L4352 L7779:LF-P ES980:K DF680 LP466:LF-P
38 Sqn*	Mk.I Mks.IA,IC Mk.III Mk.VIII Mk.X Mk.XI Mk.XIII Mk.XIV	L4235:NH-R N2756:HD-U AD597:N LA975:D HZ308:A HZ394:S HZ881:F NC674:K
40 Sqn*	Mk.IC Mk.III	X9630:BL-J HZ125:BL-Q
57 Sqn	Mk.IC Mk.II Mk.III	Z8794:DX-H W5434:DX-Y Z1565
75 Sqn	Mk.I Mk.IA Mk.IC Mk.III	L4371:FO-Q P9206:AA-A R1117:AA-F X3595:AA-K
99 Sqn*	Mks.IA,IC Mk.III Mk.X Mk.XI	T2501:1-N-F HD977 JA467:U H2400
101 Sqn	Mk.IC Mk.III	R1699:SR-D R1590:SR-H
103 Sqn	Mk.IC	R1234:PM-A
104 Sqn*	Mk.II Mk.X	W5437:EP-Q LN665:EP-J
109 Sqn	Mk.IC Mk.VI	T2968:HS-H DR481
115 Sqn	Mk.I Mk.IA Mk.IC Mk.III	L4221:BK-U N2988:KO-Q P9299:KO-O BK362:KO-P
142 Sqn*	Mk.II Mk.IV Mk.III Mk.X	W5387:QT-V Z1210:QT-M BK298:QT-O HE815:QT-Z
148 Sqn*	Mk.IC Mk.II	T2981:G Z8559:H
149 Sqn	Mks.IA,IC	X9817:OJ-N
150 Sqn*	Mk.IC Mk.III Mk.X	T2622:JN-D X3448:JN-N LP207:JN-J
156 Sqn	Mk.IC Mk.III	N2841:GT-C X3710:GT-W
158 Sqn	Mk. II	Z8595:NP-O
166 Sqn	Mk.III Mk.X	BK515:AS-P HE752:AS-W
192 Sqn	Mk.IC Mk.III Mk.X	N2772:DT-E X3566:? LN398:DT-A
196 Sqn*	Mk.X	HE167:ZO-A
199 Sqn	Mk.III Mk.X	X3812:EX-Q LN406:EX-G
214 Sqn	Mks.IA,IC Mk.II	L4345:UX-L W5442:BU-V
215 Sqn*	Mk.IA Mk.IC Mk.X	N2912:LG-G ES985:R HE791:T
218 Sqn	Mk.IC Mk.II	R1448:HA-L W5448:HA-Z
300 Sqn	Mk.IC Mk.III Mk.IV Mk.X	R1104:BI-B Z1661:BH-Z Z1320:BH-K HF698:BH-M
301 Sqn	Mk.IC Mk.IV	X9666:GR-N Z1257:GR-J
304 Sqn	Mk.IC Mk.III Mk.X Mk.XIII Mk.XIV	HF836:E X3793:NZ-G ? HF388:QD-K HF202:2-G
305 Sqn	Mk.IC Mk.II Mk.IV	R1016:SM-A Z8339:SM-N R1530:SM-A
311 Sqn	Mk.X	HF491
405 Sqn	Mk.IA,IC	P9230:KX-B
419 Sqn	Mk.II Mk.IC	W5421:LO-T Z1083:VR-O
420 Sqn*	Mk.III Mk.X	X3711:VR-R DF637:PT-F
424 Sqn*	Mk.III Mk.X	HE673:PT-D X7436:QB-D
425 Sqn*	Mk.III Mk.X	HE222:QB-E Z1729:KW-T HE903:KW-W

Squadron or unit	Mark or variant	Example serial/code
426 Sqn	Mk.III Mk.X	X5199:OW-E HE904:OW-C
427 Sqn	Mk.III Mk.X	BK389:ZL-L HZ624
428 Sqn	Mk.III Mk.X	Z1719:NA-P HE864:NA-D
429 Sqn	Mk.III Mk.X	DK540 JA111
431 Sqn	Mk.X	HE184:SE-M
432 Sqn	Mk.X	HE348:QO-P
458 Sqn*	Mk.IC Mk.IV Mk.VIII Mk.XIII Mk.XIV	HX445:MD-7 Z1218:D HX594:MD-X JA104:B NB853:R
460 Sqn	Mk.IV	Z1290:UV-T
466 Sqn	Mk.III Mk.X	BK435 HE152:HD-L

Many squadrons were initially formed in Bomber Command but subsequently went to Coastal Command, the Middle or Far East. Where this occurred two entries have been made but mark variants and codes omitted. Bomber Command squadrons assigned in this manner have been marked thus *

RAF COASTAL COMMAND

Squadron or unit	Mark or variant	Example serial/code
14 Sqn	Mk.XIV	NB909:CX-K
36 Sqn*	Mk. IC Mk.VIII Mk.X Mk.XI Mk.XII Mk.XIII Mk.XIV	HE114:RW-C LB123:RW-A HF570:Q HZ274 MP690:RW-Y MP704:RW-A HF310:RW-E
38 Sqn*	Mk.VIII	DB513:D
172 Sqn	Mk.XII Mk.XIV	HX653:L HF130:OG-W
179 Sqn	Mk.VIII Mk.XIV	HX531:M HF140:X
221 Sqn	Mk.IC Mk.VIII Mks.XI, XII Mk.XIII	T2979:DF-L BB466:B HZ395:M JA179:P
304 Sqn	Mk.IC Mk.III Mk.X Mk.XIII	HF836:E X3793:NZ-G ? HF388:QD-K
311 Sqn	Mk.XIV	HF202:2-G
407 Sqn	Mk.IA, IC Mk.X Mk.XI Mk.XII Mk.XIV	P9230:KX-B HE371 MP534:1-E HF-115:1-W HF302:2-J
415 Sqn	Mk. XIII	HZ653:NH-L
524 Sqn	Mk.XIII Mk.XIV	MF320:7R-C NB854:7R-K
547 Sqn	Mk.VIII Mk. XI Mk.XIII	LB118 HZ359 ?
612 Sqn	Mk.VIII Mk.XII	Z6633:WL-C MP654:J

RAF MIDDLE EAST

Including North Africa, Tunisia and Italy

Squadron or unit	Mark or variant	Example serial/code
36 Sqn		
37 Sqn		
38 Sqn		
40 Sqn		
69 Sqn	Mk.IC Mk.VIII Mk.XIII Mk.IC Mk.III Mk.X	HX576:Z ? NC489 Z9023:X HF750:L NA720:J
70 Sqn		
104 Sqn		
108 Sqn	Mk.IC	R1098:U
142 Sqn		
148 Sqn		
150 Sqn		
162 Sqn	Mk. III	HF733:L
179 Sqn	Mk. VIII Mk.XIV Mk.XIII	HX531:M HF140:X JA411:D
203 Sqn	Mk.IC	T2979:DF-L
221 Sqn	Mk.VIII	BB466:B

Squadron or unit	Mark or variant	Example serial/code
420 Sqn	Mk.XI, XII Mk.XIII	HZ395:M JA179:P
424 Sqn		
425 Sqn		
458 Sqn		

SEAC/RAF FAR EAST

Squadron or unit	Mark or variant	Example serial/code
8 Sqn	Mk.XIII	JA256:A-N
36 Sqn		
99 Sqn		
215 Sqn		
203 Sqn	Mk.XIII	JA411:D
244 Sqn	Mk. XIII	JA180:Q
621 Sqn	Mk.XIII Mk.XIV	? JA256:G

RAF TRANSPORT COMMAND

Squadron or unit	Mark or variant	Example serial/code
24 Sqn	Mk.XVI	N2990
162 Sqn	Mk.III Mk.X	HF733:L HZ123
196 Sqn		
232 Sqn	Mk.XVI	DV704
242 Sqn	Mk.XVI	DV738

FLEET AIR ARM

Squadron or unit	Mark or variant	Example serial/code
716 Sqn	Mk.XI	MP524
728 Sqn	Mk.XIV	NB863
758 Sqn	Mk.XI	?
762 Sqn	Mk.XI	MP547:P1Y
765 Sqn	Mk.X Mk.XI	HZ470:B HZ361:L8B
783 Sqn	Mk.I Mk.II	L4244:AOF W5357

Operational Training Units

There follows a list of all Wellington OTUs together with the airfield location: 1(C) Silloth, 3(C) Cranwell, Haverford West, 5(C) Turnberry, 6(C) Silloth, Kinloss, 7(C) Limavady, Haverford West, 10 Abingdon, 11 Bassingbourn, Westcott, 12 Benson, Chipping Warden, 14 Cottesmore, Market Harborough, 15 Harwell, Mount Farm, 16 Upper Heyford, 17 Silverstone, Upwood, 18 Bramcote, Finningley, 19 Kinloss, 20 Lossiemouth, 21 Moreton-in-Marsh, 22 Wellesbourne Mountford, 23 Pershore, 24 Honeybourne, 25 Finningley, 26 Wing, 27 Lichfield, 28 Wymeswold, 29 North Luffenham, Bruntingthorpe, 30 Hixon, Gamston, 51 Cranfield, 54 Charterhall, 62 Ouston, 63 Honiley, 76 Ayr, 77 Quastina, 78 Ein Shemer, 81 Ashbourne, Tilstock, 82 Ossington, 83 Childs Ercall, 84 Desborough, 85 Husbands Bosworth, 86 Gamston, 104 Nutts Corner, 105 Bramcote, 111 Nassau.

Miscellaneous units

No. 544 Squadron used the Wellington IV for photo-reconnaissance duties based at RAF Benson between Oct 1942 and March 1943. Example serial was Z1418.

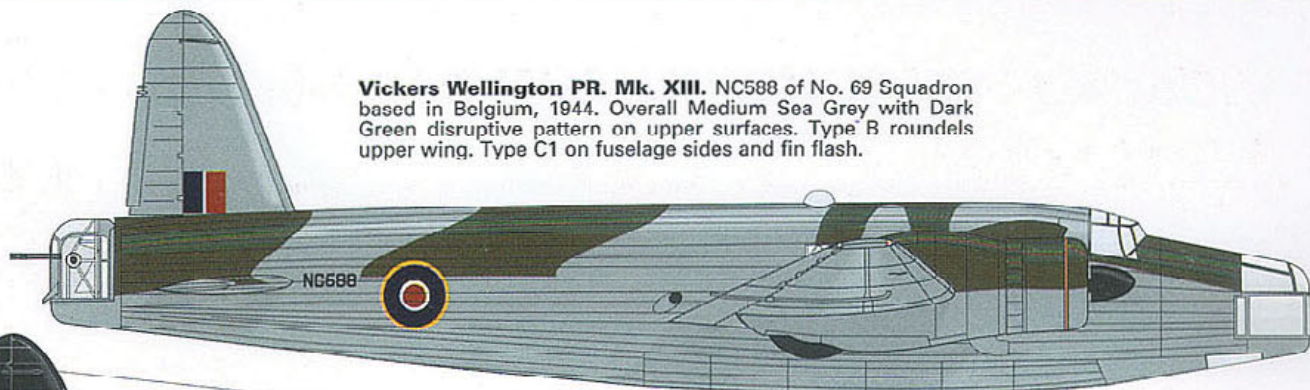
No. 93 Squadron used the Wellington Mk.IC modified for towing aerial mines against enemy bombers under the code name 'Pandora' whilst based at Middle Wallop from March 1941 to May 1942. Example serial was T1370.

British Overseas Airways Corporation used four Wellingtons Mk.ICs T2609, X9692, Z8783, and one other, for passenger and freight services in the Middle East from November 1942 to July 1943. No civil registrations were issued but the aircraft were coded BAW-1, 2, 3 and 4.

Overseas Air Forces

The Greek Air Force took delivery of eight Wellingtons in April 1946. Their previous serial numbers were ME890, ME907, ME940, MF190, MF466, MF643, NC418 and NC433. The French Aeronavale took delivery of 39 Wellingtons for maritime patrol duties in 1946. Former RAF serials included: NB980, NC122, NC942, PF997, PG183 and PG316. Only one Wellington, Mk. X RP468 was given a civil registration as G-ALUH for manufacturer's trials of a tail boom radar device. The aircraft was returned to the RAF in October 1949.

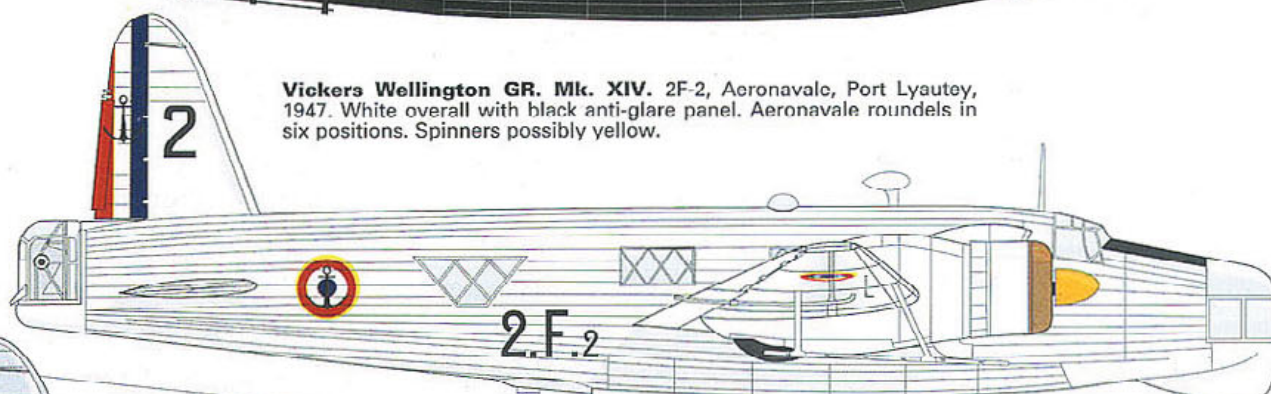
Vickers Wellington PR. Mk. XIII. NC588 of No. 69 Squadron based in Belgium, 1944. Overall Medium Sea Grey with Dark Green disruptive pattern on upper surfaces. Type B roundels upper wing. Type C1 on fuselage sides and fin flash.



Vickers Wellington Mk. X. PG324:WG-D of No. 16 OTU, Wing, Bucks, winter 1945-46. Dark Green and Dark Earth upper surfaces, Night undersides. Type C roundels above wing, Type C1 on fin flash and fuselage roundels. White codes and serial on fuselage and underwing.



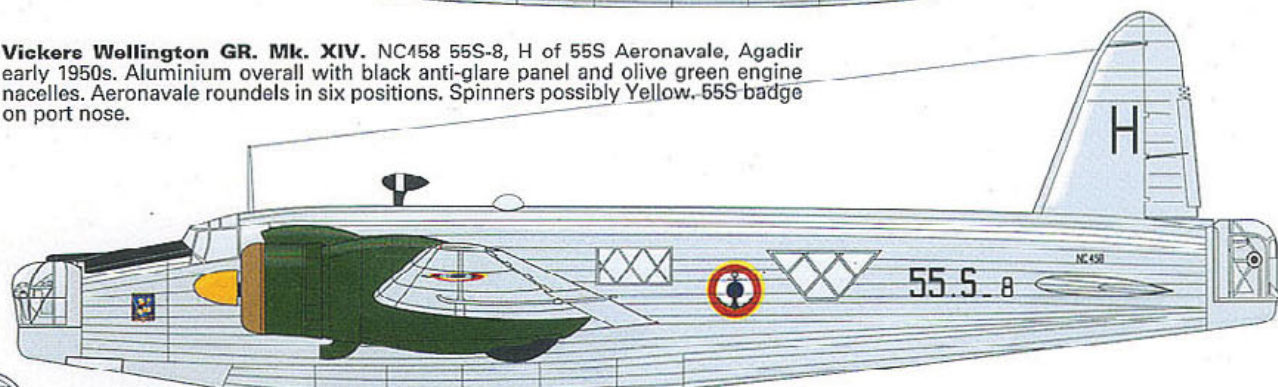
Vickers Wellington GR. Mk. XIV. 2F-2, Aeronavale, Port Lyautey, 1947. White overall with black anti-glare panel. Aeronavale roundels in six positions. Spinners possibly yellow.



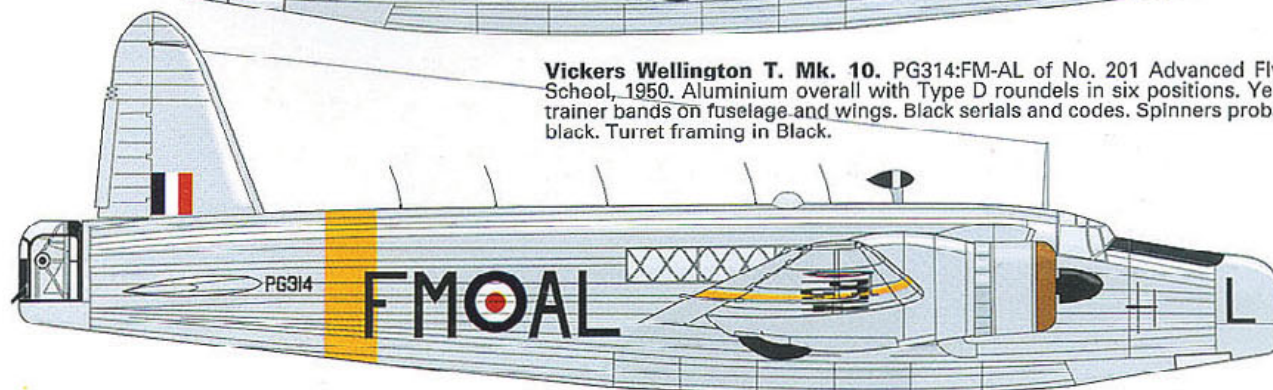
Vickers Wellington T. Mk. 10. PG312:FFK-F, of No. 1 Air Navigation School, Hullavingdon, Wilts, 1948. Aluminium overall with Type D roundels in all six positions. Yellow trainer bands on the fuselage and wings. Black serial and code. Spinner probably Medium Green. Turret framing Black.

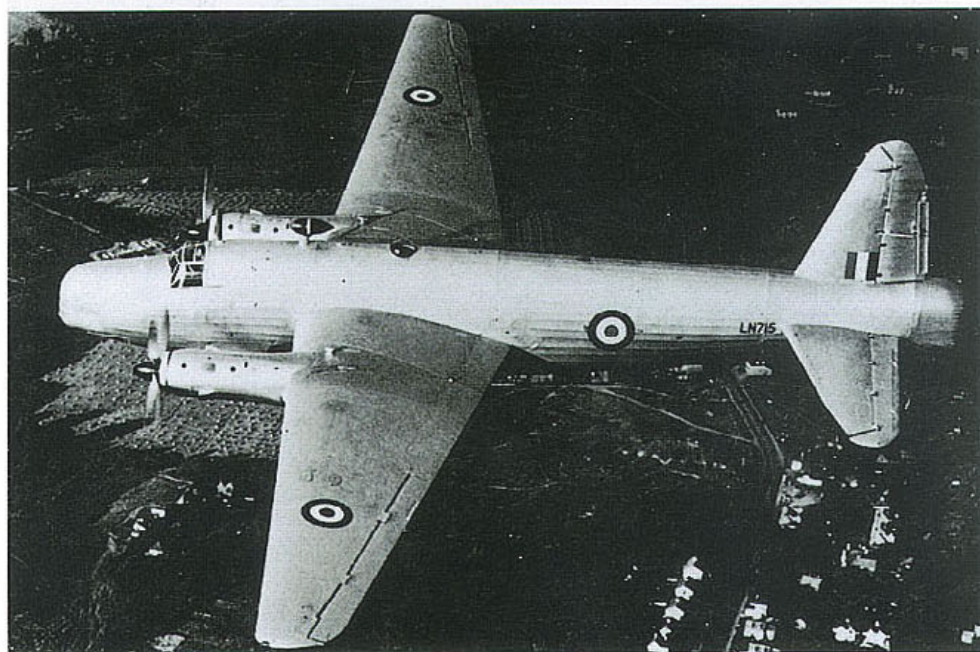


Vickers Wellington GR. Mk. XIV. NC458 55S-8, H of 55S Aeronavale, Agadir early 1950s. Aluminium overall with black anti-glare panel and olive green engine nacelles. Aeronavale roundels in six positions. Spinners possibly Yellow. 55S badge on port nose.



Vickers Wellington T. Mk. 10. PG314:FM-AL of No. 201 Advanced Flying School, 1950. Aluminium overall with Type D roundels in six positions. Yellow trainer bands on fuselage and wings. Black serials and codes. Spinners probably black. Turret framing in Black.





Above: Well-known Wellington IA, N2887, was initially with No. 99 Squadron but then served in a number of training establishments. The picture was taken in June 1943 when it was in use by the Central Gunnery School. (RAF Museum) Left: Dart turbo-prop trials were conducted by Wellington T.10 LN715 (RAF Museum)

VICKERS WELLINGTON SPECIFICATION

Span: 86ft 2ins. **Length:** 64ft 7ins Mk V and VI: 61ft 9ins. **Height:** Mk I 18,556 lbs. Mk II 20,258 lbs. Mk X 22,474 lbs. Mk VI 20,280 lbs. Mk VIII 21,118 lbs. Mk XIII 21,988 lbs. **Gross weight:** Mk I 24,850 lbs. Mk II 33,000 lbs. Mk X 36,500 lbs. Mk VI 30,450 lbs. Mk VIII 30,000 lbs. Mk XVIII 31,000 lbs.

Engines: Mk I, V and VIII: Two Bristol Pegasus XVIII of 1,050 hp. Mk II and VI Two Rolls Royce Merlin 60s of 1,145hp. Mk X and XIII: Two Bristol Hercules of 1,735hp.

Max speed: Mk I 235 mph at 15,500 ft. Mk II 254 mph at 17,500 ft. Mk X 255 mph, Mk VI 300 mph, Mk VIII 235 mph, Mk XIII 250 mph. **Range:** Mk I 2,250 mls at 180 mph at 15,000 ft., Mk II 2,200 mls at 180 mph at 15,000 ft., Mk X 1,885 mls at 180 mph, Mk VI 2,275 mls, Mk VIII 2,550 mls at 144 mph, Mk XIII 1,750 mls.

Ceiling: Mk I 18,000 ft. Mk II 23,500 ft. Mk X 22,000 ft. Mk VI 38,500 ft. Mk VIII 19,000 ft. Mk XVIII 16,000ft

Armament: Mk I Twin gun nose and tail turrets with (Mk IC) two beam guns. Bomb load: 4,500 lb. Mk II Twin gun nose and four gun rear turret, two beam guns. Bomb load 4,000lbs. Mk X Twin gun nose and four gun tail turrets with two beam guns. Bomb load 4,000 lbs. T.Mk.X generally had turrets deleted but retained bomb bay. Mk VI Remote control four gun rear turret. Bomb load 4,500 lb. Mk VIII front and rear two-gun turrets. Two 420 lb depth charges or two torpedoes. Leigh Light fitted. Mk XIII Two gun front turret and four gun rear turret, two 420 lb depth charges or two torpedoes. ASV Mk III fitted. Variations on nose armament and radar differed between later anti-submarine marks.

The RAF Museum's preserved Wellington T. 10, MF628, seen at the Queen's Jubilee Review at RAF Abingdon in 1968. Brooklands museum has the only other survivor a Mk.IC, N2890, rescued from Loch Ness, Scotland in 1985. (Richard L. Ward)