

Aviaology The Coastal Strike Wings

Mosquito F.IIs & FB.VIs

SPECIAL EDITION

The Outriders: 333 (Nor.) Squadron 1943-45

Mosquito F.II

DZ700 / H

Leuchars, summer 1943

Mosquito F.II

DZ744 / 3•G

Leuchars, spring 1944

Mosquito FB.VI

HP904 / 3•E

Leuchars & Banff,
spring-autumn 1944

Mosquito FB.VI

HP864 / 3•H

Leuchars, summer 1944

Mosquito FB.VI

HRI16 / 3•F

Banff, late 1944

Mosquito FB.VI

HR569 / KK•F

Banff, Nov 1944 - Jan '45

Mosquito FB.VI

HRI29 / KK•Q

Banff, spring 1945

Mosquito FB.VI

RF769 / KK•P

Banff, Nov 1944 - Jan '45

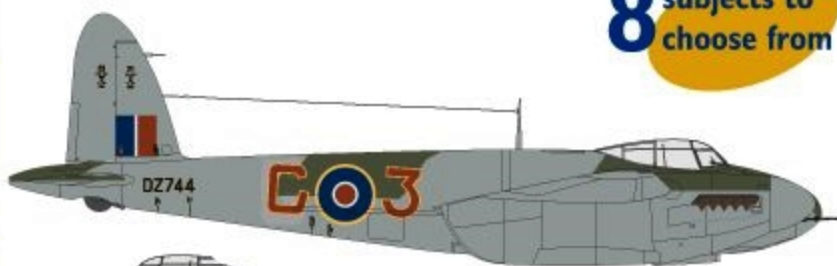


via Bengt Stangvik



Grant Mountain via the Terry Higgins collection

8 subjects to
choose from



Coastal Mosquito Colours

It would appear that both F.II's and FB.VI's destined for Coastal Command strike wings were initially finished in the type's factory applied standard two-colour Night Fighter scheme. This comprised of Medium Sea Grey overall with a Dark Green disruptive pattern on the upper surfaces. Variations observed in pattern demarcations in the scheme's application on individual aircraft can be associated with certain factories and production batches; "signatures" of a sort.

A seemingly random number of the 333 Sqn's Mosquito FB.VI's had the Coastal Special Duties Scheme A (SDS-A) applied. It is interesting to note that this was the factory standard finish on Beaufighters from mid-1943, while the Mosquito production lines seem to have stayed with the Night Fighter scheme for almost all cannon-armed (i.e. "fighter" nosed) versions. This is not surprising given that Beaufighter production was almost exclusively for Coastal Command at this stage, whereas a large proportion of Mosquito FB.VI's were headed for Fighter Command (later ADGB and 2TAF).

Close scrutiny of the very few available photos of some 333 Sqn Mosquitoes suggest that they wore an *ad hoc* variation of SDS-A, likely applied at the maintenance unit, or perhaps even the base servicing echelon, level; and not always entirely to spec. As specified SDS-A was comprised of Sky under surfaces and Extra Dark Sea Grey upper surfaces with the upper/under demarcation low on the fuselage sides. The *ad hoc* variation appears to have used a noticeably lighter gray — closer to Dark Sea Grey — sprayed directly over the Night Fighter Scheme colours on the upper and side surfaces. The specified Sky may have been used on the undersurfaces but it also seems probable that, for some FB.VI's at least, the Medium Sea Grey was retained untouched. The final interpretation is left to your personal assessment of reference photos.

All markings shown apply to both wings & both hz. tails on both schemes unless noted

Decal "3" for aircraft prior to early Jan 1945.

I or 3?
both wings



NOTE: Airframe stencil / data markings placements are shown. These decals are available separately (see page 3 for details).

Alternates H1, J1, K1 and L1 are provided but decals H, J, K, and L represent the markings most seen on reference photos. These erection rigging markings may have been over-painted on the later aircraft.

I or 3?
both wings
See note above, left
Centered just outboard of the central aileron hinge fixture with the rear edge 2 inches (at full size) forward of the butt edge of the wing panel ahead of the aileron.

Mosquito F.II DZ700 - Leuchars, summer 1943

Built to RAF contract as an NF.II, but operated over the entire course of its wartime career as an F.II in Coastal Command squadrons and OTUs. Became instructional airframe 5913M postwar.

With 333 Sqn from 27 April to 22 December 1943.

- Narrow bladed propellers.
- Exhaust shrouds remain in place.
- Early spoked mainwheels.
- Long range tank in bomb bay.
- F.II did not have the radar system of the NF.II.
- F.II did not have the radio gear on the rear deck of the cockpit.
- F.II did not have the wing hardpoints of the FB.VI.

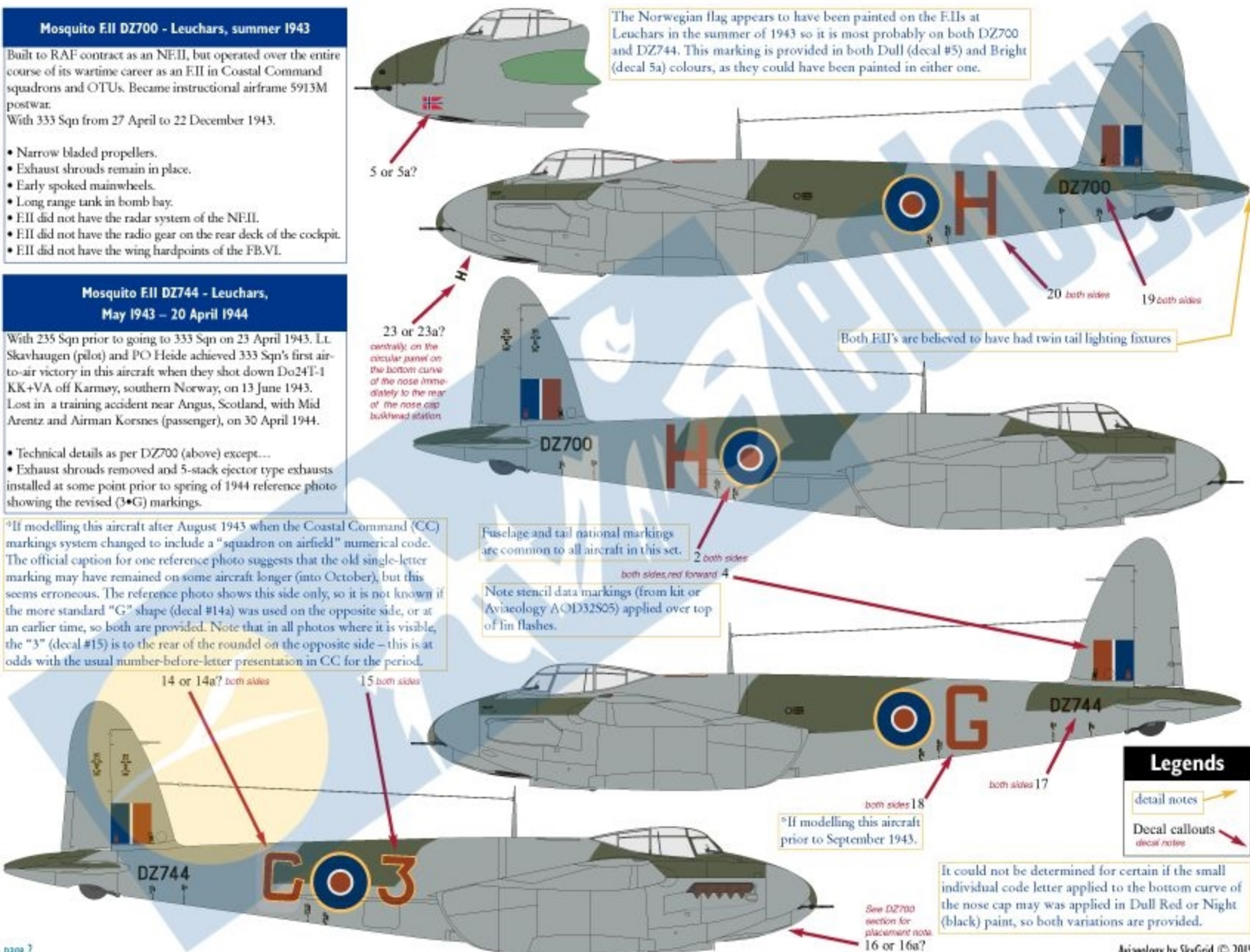
Mosquito F.II DZ744 - Leuchars, May 1943 - 20 April 1944

With 235 Sqn prior to going to 333 Sqn on 23 April 1943. Lt Skavhaugen (pilot) and PO Heide achieved 333 Sqn's first air-to-air victory in this aircraft when they shot down Do24T-1 KK+VA off Karmøy, southern Norway, on 13 June 1943. Lost in a training accident near Angus, Scotland, with Mid Arentz and Airman Korsnes (passenger), on 30 April 1944.

- Technical details as per DZ700 (above) except...
- Exhaust shrouds removed and 5-stack ejector type exhausts installed at some point prior to spring of 1944 reference photo showing the revised (3•G) markings.

†If modelling this aircraft after August 1943 when the Coastal Command (CC) markings system changed to include a "squadron on airfield" numerical code. The official caption for one reference photo suggests that the old single-letter marking may have remained on some aircraft longer (into October), but this seems erroneous. The reference photo shows this side only, so it is not known if the more standard "G" shape (decal #14a) was used on the opposite side, or at an earlier time, so both are provided. Note that in all photos where it is visible, the "3" (decal #15) is to the rear of the roundel on the opposite side - this is at odds with the usual number-before-letter presentation in CC for the period.

The Norwegian flag appears to have been painted on the F.IIs at Leuchars in the summer of 1943 so it is most probably on both DZ700 and DZ744. This marking is provided in both Dull (decal #5) and Bright (decal 5a) colours, as they could have been painted in either one.



Legends

detail notes

Decal callouts

decal notes

It could not be determined for certain if the small individual code letter applied to the bottom curve of the nose cap may have been applied in Dull Red or Night (black) paint, so both variations are provided.

Mosquito FB.VI HP864 - June to December 1944

Lt. Johansen and SubLt. Hulmen attacked and damaged U-290 off Urvær with MG, cannon, & depth charges on 14 June 1944. This was the first operational use of a D/C armed Mosquito.

They also attacked and damaged U-998 off Bergen, Norway, with cannon and D/Cs on 16 June 1944 and damaged her to the extent that she was taken off patrol, written off by late July, and scrapped later that year.

4 December 1944, crew of Mid Løken and PO Skjenlanger reportedly intercepted a Ju88 and shot it down into the sea (claim not confirmed in German records).

13 December 1944, damaged in belly landing due to engine failure shortly after take-off.

- Narrow bladed propellers initially, refitted with paddle bladed.
- Exhaust shrouds removed and 5-stack ejector type exhausts installed.
- Wing hardpoints (see pg.8 for details).

Mosquito FB.VI HP904 - May to December 1944

26 May 1944, Crew of SubLts Engebrigtsen & Jonassen, together with one other 333 Sqn Mossie, damaged U-958.

25 July 1944 Mids Breck and Hjorten, together with crew of HR116, attacked U-244 near Mandal causing superficial damage (see also HR116 entry).

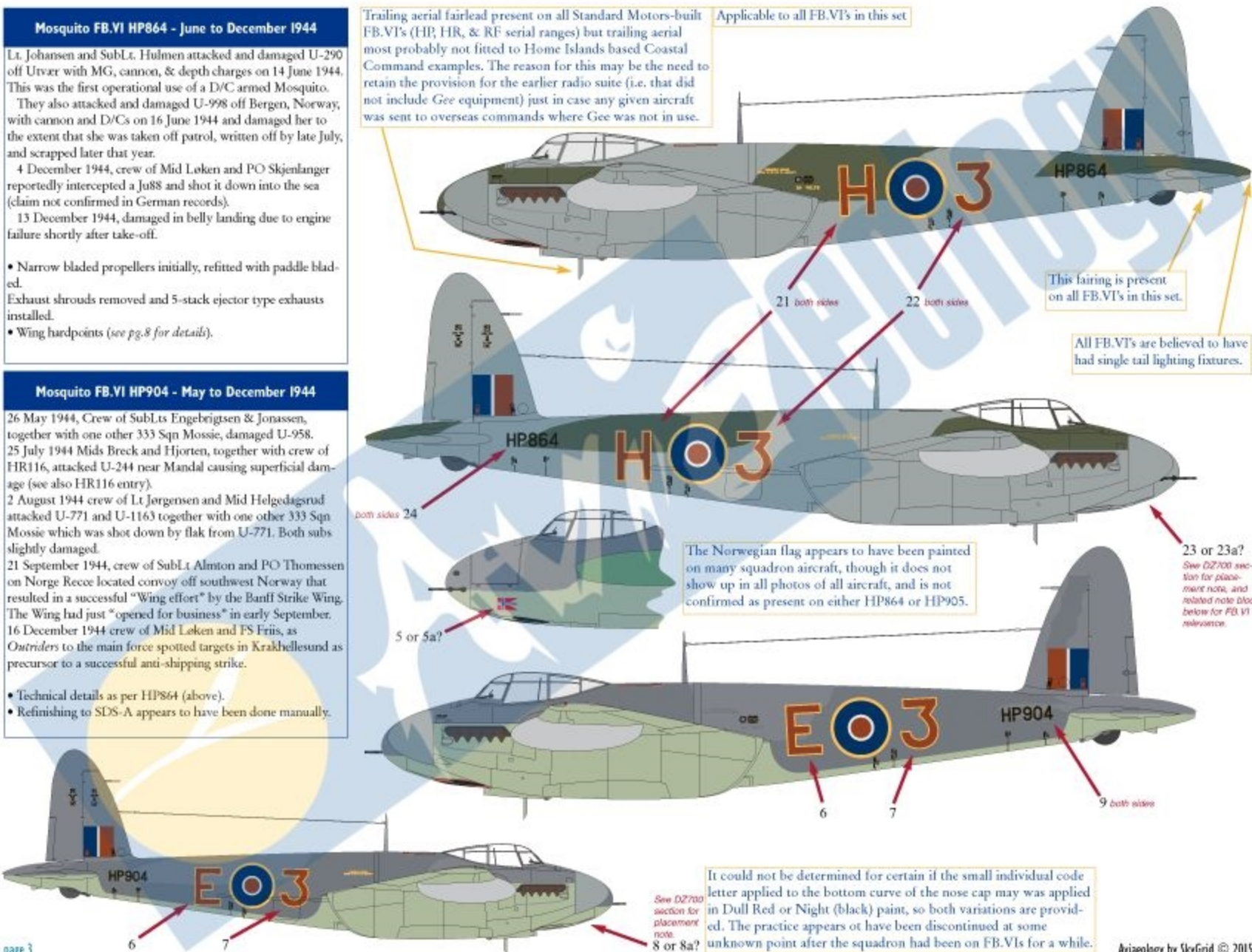
2 August 1944 crew of Lt Jørgensen and Mid Helgedagsrud attacked U-771 and U-1163 together with one other 333 Sqn Mossie which was shot down by flak from U-771. Both subs slightly damaged.

21 September 1944, crew of SubLt Almiton and PO Thomassen on Norge Recce located convoy off southwest Norway that resulted in a successful "Wing effort" by the Banff Strike Wing. The Wing had just "opened for business" in early September. 16 December 1944 crew of Mid Løken and FS Friis, as *Outriders* to the main force spotted targets in Krakkellesund as precursor to a successful anti-shipping strike.

- Technical details as per HP864 (above).
- Refinishing to SDS-A appears to have been done manually.

Trailing aerial fairlead present on all Standard Motors-built FB.VI's (HP, HR, & RF serial ranges) but trailing aerial most probably not fitted to Home Islands based Coastal Command examples. The reason for this may be the need to retain the provision for the earlier radio suite (i.e. that did not include Gee equipment) just in case any given aircraft was sent to overseas commands where Gee was not in use.

Applicable to all FB.VI's in this set



This fairing is present on all FB.VI's in this set.

All FB.VI's are believed to have had single tail lighting fixtures.

The Norwegian flag appears to have been painted on many squadron aircraft, though it does not show up in all photos of all aircraft, and is not confirmed as present on either HP864 or HP905.

It could not be determined for certain if the small individual code letter applied to the bottom curve of the nose cap may have been applied in Dull Red or Night (black) paint, so both variations are provided. The practice appears to have been discontinued at some unknown point after the squadron had been on FB.VI's for a while.

Mosquito FB.VI HR116 - May to November 1944

8 May 1944, crewed by Mid's Jensen and Thorkildsen, damaged an Ar196 floatplane in a head-on firing engagement off Lista but HR116 was also damaged (nose, windscreen, and instrument panel). Jensen suffered frag injury to torso and one eye but landed safely at Leuchars.

25 July 1944, crewed by P/O Stiff and FS Bussey (both RAF), together with crew of HP904, attacked U-244 near Mandal but only superficial damage was caused (see also HP904 section).

19 September 1944, crew of SubLt Plyhn and Mid Bjørnø on Norge Recce located convoy off Stavens that resulted in a successful "Wing effort" by the then-new Banff Strike Wing. Struck off Strength due to flying accident, 31 November 1944.

- Technical details as per HP864 (see page 3).
- Refinishing to SDS-A standard appears to have been done with spray equipment in a controlled environment (paint shed?). Nose finish tonal variations likely due to repairs.

As is the case with many "model worthy" Second World War aircraft, more often than not we have only a reference photo or two to work with in replicating paint schemes and markings showing either just one side of the aircraft, or showing only a portion of the aircraft. Interpretations based on at least one reference photo of any given side of the subject aircraft are presented as larger profiles. The smaller profiles indicate that our graphic reconstruction is based, for the most part, on a range of other materials including:

- contemporaneous photos of other aircraft from the same squadron (we have a good range on file representative of all eras of 418 Squadron aircraft);
- descriptions within narratives by reputable authors;
- other anecdotal evidence, including interviews and / or transcripts from veteran members of the squadron;
- or, as a last resort, existing published illustrations that seem to corroborate the abstractions drawn from these other materials.

Mosquito FB.VI HR569 - December 1944 to February 1945

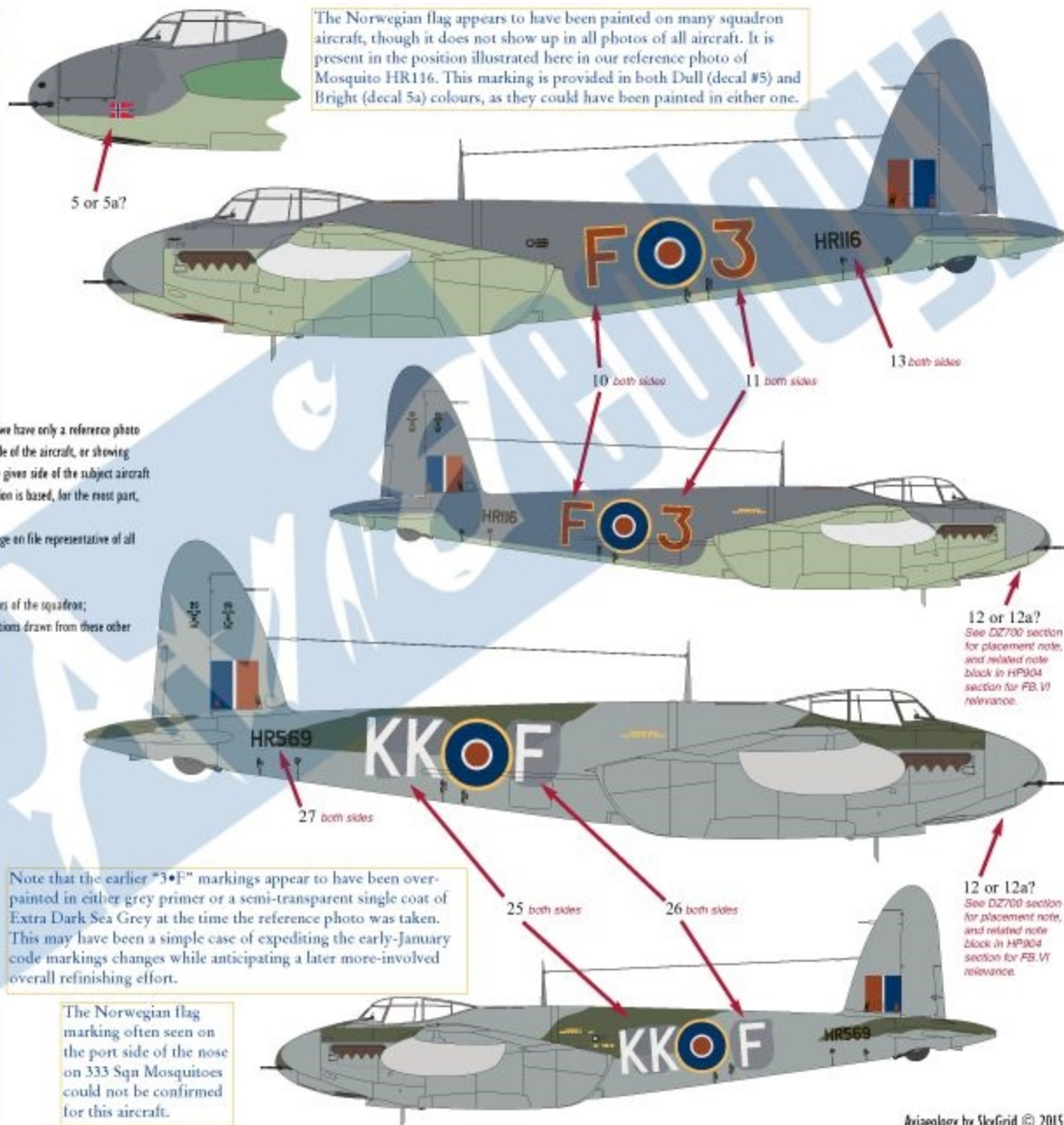
26 December 1944, crew of SubLt Stensrud and FS Friis was one of two 333 Sqn *Outriders* on an anti-shipping strike at Leirvik. Two ships were attacked but the force was engaged by nearly 30 FW190s of JG5. HR569 was most probably marked as "3•F" during this time, so the code decal elements (decals #10 and 11) from HR116 and the two-colour upper wing roundels (decal #3), can be used to model this.

9 January 1945, crew of SubLt Stensrud and FS Friis was again one of two 333 Sqn *Outriders* on another anti-shipping strike at Leirvik. All ships attacked were damaged to some extent.

22 February 1945 this same crew, while testing a new strike camera installation (likely the Fairchild K-247 mounted centrally in a modified nose cap), hit the mast of a stationary target vessel not too far from shore off Banff, and crash-landed just inland. The pilot was thrown clear, complete with seat assembly! Both survived with injuries. HR569 was written off.

- Technical details as per HP864 (see page 3).

The Norwegian flag appears to have been painted on many squadron aircraft, though it does not show up in all photos of all aircraft. It is present in the position illustrated here in our reference photo of Mosquito HR116. This marking is provided in both Dull (decal #5) and Bright (decal 5a) colours, as they could have been painted in either one.



Note that the earlier "3•F" markings appear to have been over-painted in either grey primer or a semi-transparent single coat of Extra Dark Sea Grey at the time the reference photo was taken. This may have been a simple case of expediting the early-January code markings changes while anticipating a later more-involved overall refinishing effort.

The Norwegian flag marking often seen on the port side of the nose on 333 Sqn Mosquitoes could not be confirmed for this aircraft.

Mosquito FB.VI HR129

This aircraft was originally a 235 Sqn aircraft marked as "LA•A" (and "I" prior to September) until early January 1945.

While in 235 Sqn markings, HR129 had the late 1944 "remnant invasion stripes" (lower half of rear fuselage only) just recently overpainted in the camouflage colours.

The original upper colours of Medium Sea Grey (MSG) and Dark Green may have been overpainted in Extra Dark Sea Grey when HR129 was out of the 235 Sqn line for repairs in November, returning on 1 December 1944. The upper rear fuselage stripes were most probably overpainted in early/mid December 1944. The reference photo (*Profiles in Norway...*, page 24) is difficult to interpret with certainty with regard to the lower surface finish: the original factory scheme MSG may have been retained, or it may have been overpainted in Sky in keeping with SDS-A (see "Coastal Mosquito Colours", page 1. Whichever the case, the spinners appear to be the same colour as the lower surfaces, so MSG seems the most probable colour.

A later RFxxx series aircraft (of three received on 10 January) replaced HR129 on the 235 Sqn line, probably because of the frequent inventory swaps occurring at the time as the squadron was re-equipping with rocket projectile capable Mosquitoes.

11 January 1945, crew of SubLt Mathiesen and Leithe as one of two *Outriders* to the main force guided the Dallahy Strike Wing Beauflighters in an attack on two minesweeper-class escort vessels. One sunk and one damaged and two Beaux lost to flak.

• Technical details as per HP864 (see page 3), but likely had paddle-bladed props for the extent of its 333 Sqn service.

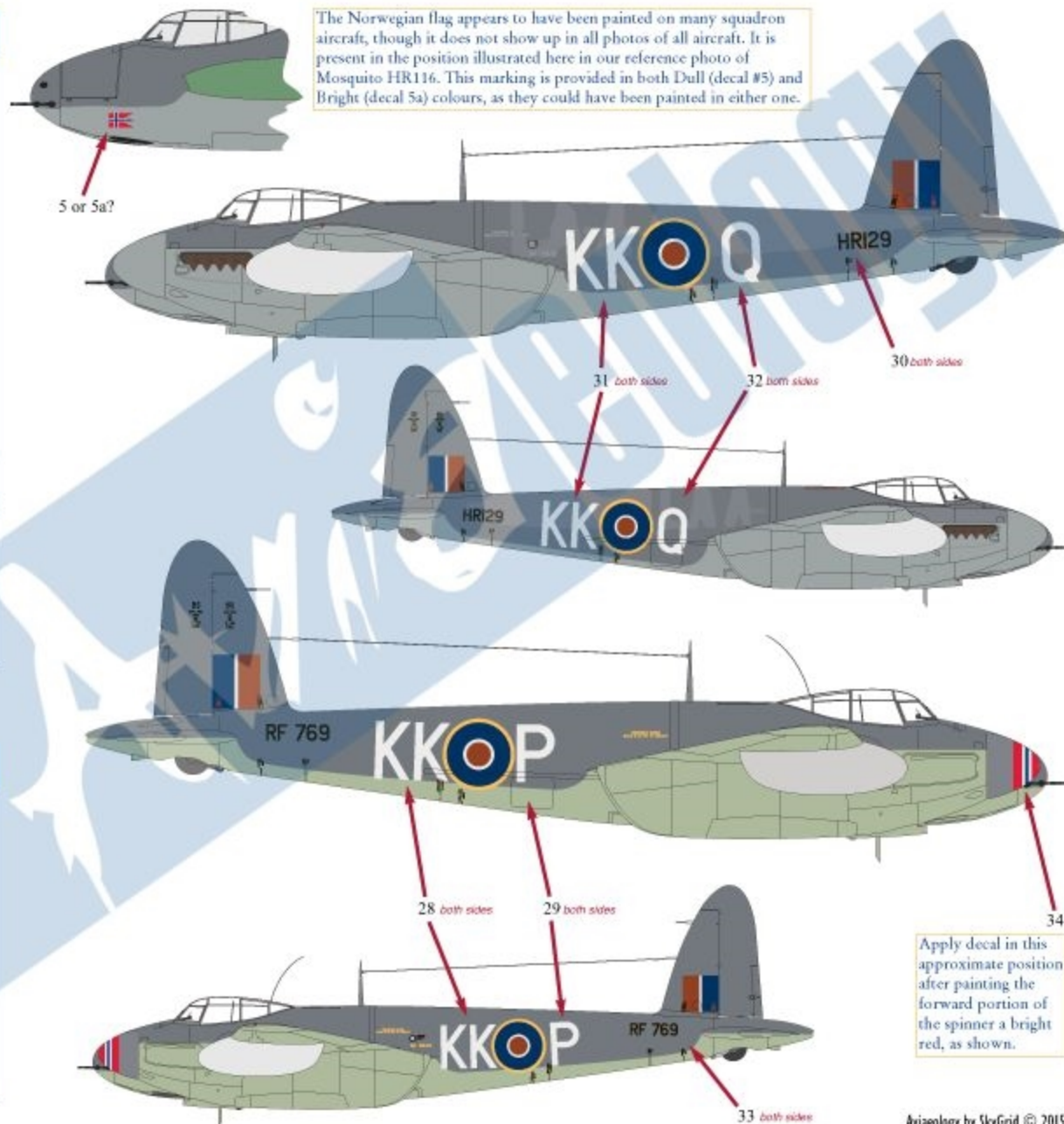
Mosquito FB.VI RF769

Reportedly, the flag-coloured strips on the spinners of 333 Sqn Mosquitoes began to appear in late April or early May 1945. This aircraft came on squadron strength 10 May 1945 and remained with the squadron when it was formally changed to 334 Sqn in the postwar period, until it crashed and was written off 30 November 1945.

No 333 Sqn, which had been a Marinens Flyvevåpen (Naval Air Arm) squadron throughout its Coastal Command existence, was formally transferred, with its aircraft, from the RAF to the Royal Norwegian Air Force in November 1945.

- Technical details as per HP864 (see page 3) except...
- Factory-installed exhaust shrouds retained.
- Paddle-bladed props as factory-standard.
- SDS-A finish applied at the MU prior to delivery.
- May have external Gee aerial.

The Norwegian flag appears to have been painted on many squadron aircraft, though it does not show up in all photos of all aircraft. It is present in the position illustrated here in our reference photo of Mosquito HR116. This marking is provided in both Dull (decal #5) and Bright (decal 5a) colours, as they could have been painted in either one.



Ordnance used on 333 Sqn Mosquito FB.VI - some modelling notes

General

All of the Mosquito FB.VI aircraft used by 333 Sqn were Series II examples with four hardpoints for drop-able ordnance - two in the fuselage bomb bay and two under the outer wings, each capable of totting up to 500 pounds on a Universal Bomb Carrier (UBC) No.1, Mk.III. The UBCs on the wings were usually faired over by the late-model fairing illustrated here (see Aviaecology AODxx005m Decals 'n Docs or stand-alone AOD-D005 Docs for comparison to the earlier fairings). Due to the shape of the fairing, designed as it was to conform to the shape of the 500lb Medium Capacity (MC) bomb, there may have been some restrictions on carriage of other ordnance and this seems to bare out in the A&AEE photo illustrated below. The 500 lb MC bomb was also a tight fit (especially vertically) in the bomb bay, implying similar carriage restrictions due more to ordnance shape than weight.

Although there were a few exceptions, the wing hardpoints would typically have drop tank mounting "horns" installed instead of the UBCs and fairings. The bomb bay was also plumbed to carry a 63 gallon long range tank and this may have been installed, in lieu of droppable ordnance, for certain longer-endurance *Norge* *Recco* or *Outrider* missions.

Some 333 Sqn Mosquito FB.VI droppable ordnance loadouts as noted in Operations Record Book excerpts

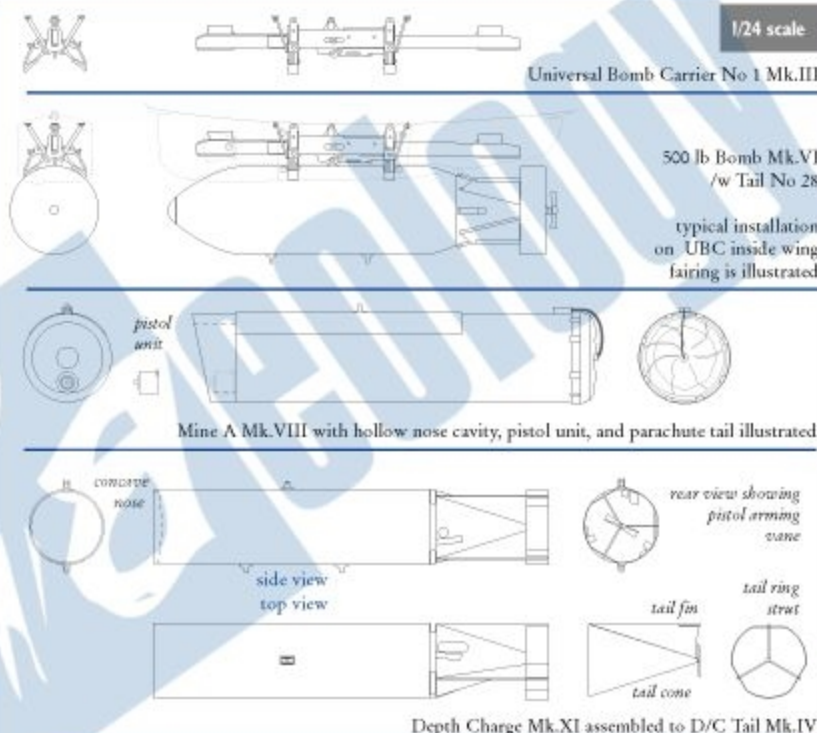
- Drop tanks* on wing hardpoints + 2x 500 lb MC bombs** in bomb bay.
 - Drop tanks on wing hardpoints + 2x D/C Mk.XI in bomb bay.**
 - Mine A Mk.VIII on wing hardpoints.** The long range tank may have been used on the rare instances when this weapon was used operationally in early 1945, but this has not been confirmed.
- * Drop tanks were 50 gallon type through to late February 1945, or 100 gal from early March 1945. Moulded wood tanks were typically finished in aluminum paint. Some noted with camouflage colour on the upper surface ahead of the wing, possibly as an anti-glare measure.
- ** 500 lb MC bombs were typically tail fused (either instantaneous or slight delay) with nose plugs when used on Coastal Command strike aircraft.
- *** The author's preliminary research indicates that the Depth Charge Mk.XI, D/C Tail Mk.IV combination would have been more appropriate for Mosquito use than the same weapon with a D/C tail Mk.III (i.e. the often seen simple hollow-cylinder tail) for both physical and operational reasons. For example, the later tail was slightly shorter, allowing for better clearance from the bomb bay rear bulkhead, better performance on higher-speed aircraft, and arming-safety features.
- **** The configuration detail of this ordnance load has been rather difficult to research. What is presented here is admittedly extrapolation based entirely on A&AEE trials material, extremely terse ORB excerpts, official material on the weapon itself, and personal opinion on the aircraft's physical limitations (noted above). It is difficult to imagine that this weapon would have been carried in the bomb bay, in its standard configuration, clearance from the bomb doors may have been problematic, if not impossible (especially with the weapon's nose-spoiler fitted). This, combined with the A&AEE photos make the case for the wing carriage. The Establishment's report notes that wing carriage was possible "for both [i.e. depth charge and mine] up to 450 mph..." and "release, after modification, up to 365 mph... were satisfactory." The modification mentioned was most probably to the lower compound curve contours of the UBC fairings. True, these weapons may also have been slung without the fairings being present, but this may have imposed an unacceptable speed/ endurance limitation on the aircraft.



Mosquito FB.VI HR135 of 248 Sqn pictured in August 1944 while on loan to the Aircraft & Armament Experimental Establishment (Boscombe Down) for the purpose of testing both D/C Mk.XI and Mine A Mk.VIII (soon here) ordnance carriage on the wing hardpoints. The lower outline of the UBC fairings appear to have been altered from their usual shape (bright areas indicating new sheet metal?) to make the mines "snug up" properly to the carrier crutch pads. A Sea Mosquito used to test this same ordnance in October 1945 exhibited similarly altered UBCs. Note the SDS-A finish and A.E.A.E. invasion stripes still present on the wings and rear fuselage.

A&AEE photo 11908

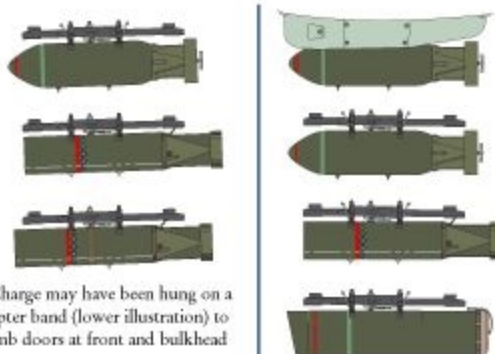
Ordnance used on 333 Sqn Mosquito FB.VI - in scale & colour



bomb bay

1/48 scale

wings



Depth Charge may have been hung on a steel adapter band (lower illustration) to clear bomb doors at front and bulkhead at rear.

UBCs were usually black with metal parts when new and fairing was the colour of the aircraft under surfaces. Ordnance generally Dark Green, but finish on cast bomb bodies seemed to weather differently than that on the tail assemblies. Mine parachute ranged from dark beige to "burlap" in colour. Bands are bright red and light green. Mines (and D/Cs if hung on the wings operationally) may have been with modified fairings or no fairings(?).

Aviaecology by SkyGrid © 2015

Gee Mk.II (A.R.I. 5083) on Coastal Command Mosquito FB.VI - Background

Gee was a radar navigation system, accurate to within 200 yards at 300-350 miles range, developed at the Telecommunications Research Establishment. It depended on transponder equipment in the aircraft and passive ground stations (a group of stations was need for each *Gee Chain*). Used by the RAF, USAAF, and RN based in the UK from March 1942 through to the end of the war, overseas ground stations were also stood up as the Allies gained a firmer footing in Continental Europe and Overseas. From early 1945, it was increasingly supplanted by LORAN on a more global scale.

By the time Coastal Command was taking the first of its FB.VI's on strength, all three UK-based *Gee Chains* were operational and it was becoming standard equipment in all of the Command's operational types. In the FB.VI, as in many other aircraft types, the airborne equipment, by now *Gee Mk.II*, was embodied as Airborne Radio Installation (ARI) 5083. On the Mosquito, the equipment was installed behind the pilot's seat in such a way that it could be accessed by the navigator. Initially, the FB.VI version of ARI 5083 was facilitated by removing the huge T1154 transmitter that had occupied the rear deck (formed by the wing centre-section), and relocating the R1155 receiver (which was apparently still used for some functions) further aft on the deck from its original location behind the pilot's seat. The R1155 installation was eventually removed as well, leaving only the ARI 5083's R1355 receiver on the rear deck as shown in the photo below. Other radio equipment in the aircraft was, with the exception of its cockpit controls, the TR1143 located in the mid-fuselage radio bay.

In addition to the main units illustrated here, Gee Mk.II required any one of at least three different vertical wire aerial (antenna) installations.⁶ The initial form of ARI 5083, as described and illustrated in Mosquito technical documentation, shows a long cable run (green wire on the R1355 RF Unit) to an aerial strung vertically on a rear fuselage bulkhead. Later variations featured shorter cable runs to a whip aerial protruding from either the top of the rear canopy section (just to-port of centre) or the fuselage where the original wood aerial mast used to stand. Aircraft manufactured without the wooden mast, or those that may have had it removed during a maintenance down-time modification embodiment, may have either the canopy or fuselage-top whip installed. A late-war edition of the Ministry's ARI 5083 manual mentions "Rod Aerial type 87" and "Rod Aerial 257" which, when coupled with their respective Loading Units become "Aerial, aircraft, type 201" and "Aerial, aircraft, type 329" respectively.

⁶ There may have been more. This observation is based largely on the photographic record and sometimes cryptic descriptive documentation. Mosquito FB.VI: Airframe, systems and RAF wartime usage (by Dave Brown, SAM Publications Aviation Guide Series, 2009) provides a copy of the initial ARI 5083 on pg. 64. This is an excellent general technical reference publication for model makers interested in Mosquito FB.VI details.



The two main components of Gee Mk.II, ARI 5083, as embodied in a wartime Mosquito FB.VI. The unit behind the pilot's seat is a Type 62A indicating unit and that mounted on the rear decking is the R1355 receiver. Not visible in this view are the switch panel, which is normally mounted on the port canopy sill framing just above the R1355, and the aircraft's Junction Box 1, which is mounted horizontally, to the left of the navigator's seat, on the box structure which supports the seat. Other components of the system are elsewhere in the aircraft.

the Aviaology collection

Gee Mk.II (A.R.I. 5083) Mosquito FB.VI installation in scale



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Many thanks to Bengt Stangvik, Kjetil Korsnes, & Kyrre Ingebretsen for their help and generosity. This Decals 'n Docs set would not have been possible without their generous assistance and subject knowledge. In addition to Squadron records and Mosquito technical material, the single most useful reference source in creating this set, containing as it does numerous photographs, colour profiles, and a succinct combat history, was the book authored by Kjetil and Bengt (Bengt also painted the book's profiles) in 2008. You can get your copy of it, *Profiles in Norway No 6: De Havilland Mosquito - No 333 (Norwegian) Squadron 1943-1945*, online from: Arild Kjærås <https://proinor.no/fly-historie-profilhefter/>

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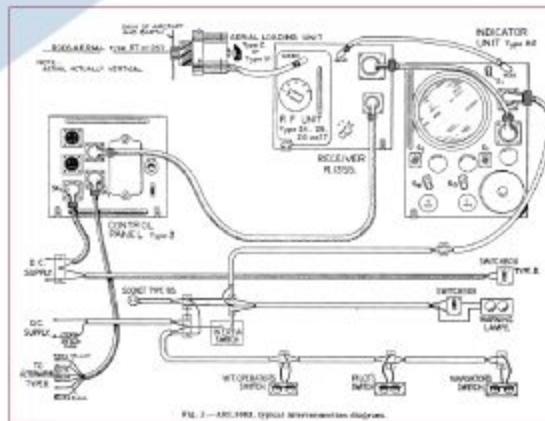
1/12 scale



Type 62 indicating unit (typical - some manufactured with black front panel as well)



R-1355 Receiver (typical - some manufactured with black front panel as well)



Wiring Diagram from the Air Ministry ARI 5083 manual (not to scale / x/y distorted)



This unidentified 333 Sqn FB.VI illustrates the usual position of the flag marking, and an upper/lower paint demarcation that has all the appearances of a hand-brushed-in-the-field job. The light-coloured spinners, if white, may indicate that this is one of the ex 404 Sqn Mosquitoes taken on strength shortly after V-E Day.



Mosquito FR116 at Banff in September of 1944. Note the clean tight-feathered appearance of the demarcation between the upper Extra Dark Sea Grey and lower Sky finishes, indicating that this may be a "to spec" finish vice the seemingly *ad hoc* field application of the new scheme. The position of the Norwegian flag and nose demarcation, as well as the ceno point on the upper drop tank, are also of interest.

This 333 Sqn Mosquito F.II is not one of our subject aircraft, but it does show the typical position of the "repeater" code letter on the nose, and the manual method used to paint the Norwegian flag on the port side of the nose.

Two views of Mosquito E11 DZ744 levelled in trestle and sling with maintenance work underway. Note the 63 gallon long range fuel tank installed in the rear weapons bay (the bomb bay on later FB.VI aircraft).

Another unidentified 333 Sqn FB.VI shows well the late-war / post-war spinner markings. This aircraft appears to have the bands applied over top of factory-finished Medium Sea Grey spinners. This is different than the Extra Dark Sea Grey on the spinners of our subject aircraft, RF769, in the photo below.

