

# RCAF Overseas Catalinas

## Catalina Mk.I, IB, & IVB of 413 & 422 Sqn

### The Saviour of Ceylon & Beyond

#### 413 Squadron

Catalina Mk.I

WB427 / QL-G

Sullon Voe, Scotland 1941-'42

Koggala, Ceylon, 1942-43

S/L Birchall's "personal" a/c

Catalina Mk.I

WB412 / B

Koggala 1942-43

Catalina Mk.IB

FP306 / D

Koggala 1942-43

Catalina Mk.IB

FP182 / G

Koggala early/mid 1944

#### 422 Squadron

Catalina Mk.IB

FP103 / DG-A

UK & USSR, Sept. 1942

**Bonus  
Options**

Catalina Mk.I

AJ155 / QL-A

Koggala Apr. 1942

The "Saviour of Ceylon"  
sortie aircraft

Catalina Mk.IVB

JX276 / Z

Koggala early / mid 1944



via the Carl Vincent collection

5 photo-documented subjects plus the markings to model 2 other significant-action aircraft, including S/L Leonard Birchall's "Saviour of Ceylon" sortie Mk.I and a Boeing Canada-built Mk.IVB, based on carefully interpreted graphic reconstructions.

**5** subjects to  
choose from  
+ 2 bonus options

Docs feature articles (notes with photos and/or scale illustrations) on:

- Catalina Mk.I / Mk.IB wing centre-section (structure & armaments to RAF specification);
- Catalina Mk.IVB wing centre-section (PBY structure with RAF-specific armament mods);
- Defensive armament variations, illustrating differences between marques;
- ASXII radar aerials – progressive variations & other RAF-specific aerials installations.



**Catalina Mk.I in RAF Service**  
**Finish, Markings, &**  
**Version Notes**

1/44 scale

6 Wing access manhole covers feature fuel filler caps and related tank venting masts. One (per side) small inboard mast only for early Mk. Is in the Wxxxx and serial range and Mk.IIs in the AMxxx serial range. Later Mk.Is and Mk.IIAs have an additional identical pair of small masts outboard of caps.

float worm-drive lubrication holes (x5) and mechanism inspection hatch.

1 2 8x ordnance winching points centred on external reinforcement plates. Holes for winch cables were capped with neoprene bungs during flight.

1x Vickers .303 on pintle mount in turret (usually detached and stowed when not airborne on ops).

2x Vickers .303 on twin mount per blister.

20 Early ASV (Mk.I or short range Mk.II) for homing / navigation only. Aerials are in symmetrical pairs.

V-shaped Zipper-fastened inspection flaps

Note bomb-aimer's window cover in place

12 USN type flare chutes on all RAF-operated Catalina marques.

V-shaped Zipper-fastened inspection flaps

3 1x Vickers .303 on pintle mount in tunnel position on framework that swings up, to port when not in use. Note external armour plate on hull at gunner's prone position and on the tunnel hatch. Not on USN aircraft. Hatch swings upwards to the rear when opened.

**Typical Temperate Sea Scheme (TSS) colours**

Dark Slate  
 Grey (faded)

Extra Dark Sea Grey (faded)

Sky

both wings, 1 upper surfaces only

Three blue formation lights. Small domes - 1x each on both wings and centrally atop rear fuselage just behind gunners station rear bulkhead, common to all Catalinas

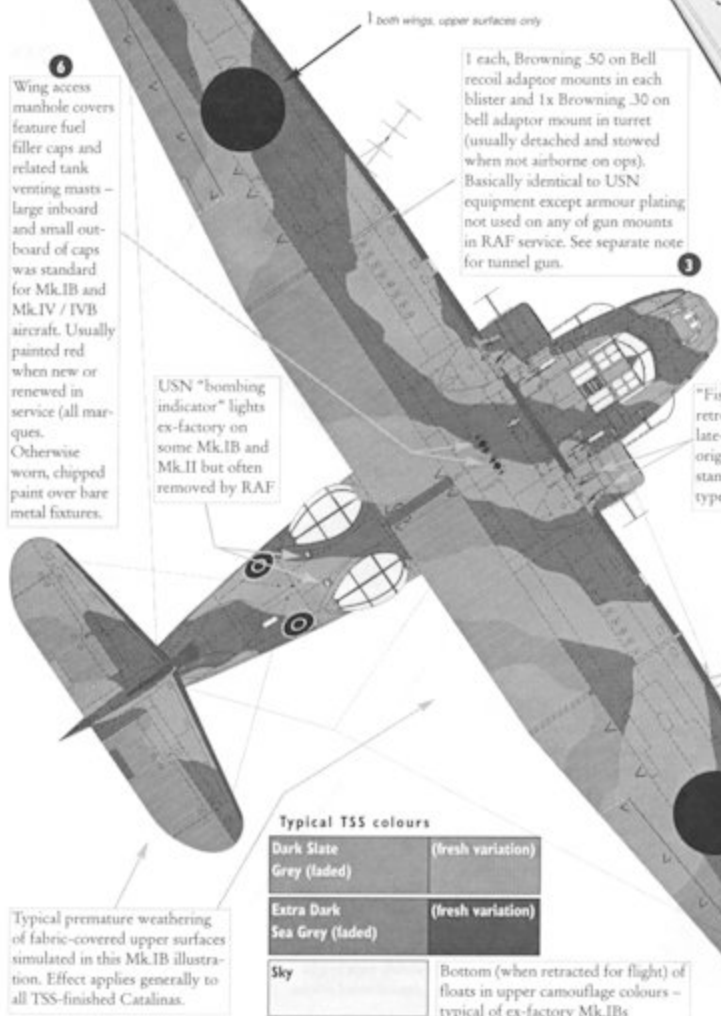
16 17 18 19 A typical Catalina radio configuration resembles the USN system externally with two exceptions: 1) A wire aerial and mast affixed centrally to the top of the rear fuselage adjacent to the gunners' compartment rear bulkhead) feeding the two IFF aerials is replaced by IFF aerials strung between the fuselage itself and the tailplane under-surfaces, and; 2) The DF loop mounting fixture is offset slightly to port (it is dead-centre on USN aircraft).

Wire aerials are illustrated in blue for graphical clarification purposes only. Actual aerials were bright natural metal colour.

**Legends**

- detail notes
- # notes keyed to table
- Decal callouts
- decal notes

## Catalina Mk.IB in RAF Service Finish, Markings, & Version Notes



**6**  
Wing access manhole covers feature fuel filler caps and related tank venting masts – large inboard and small outboard of caps was standard for Mk.IB and Mk.IV / IVB aircraft. Usually painted red when new or renewed in service (all marques). Otherwise worn, chipped paint over bare metal fixtures.

USN “bombing indicator” lights ex-factory on some Mk.IB and Mk.II but often removed by RAF

**1**  
1 each, Browning .50 on Bell recoil adaptor mounts in each blister and 1x Browning .30 on bell adaptor mount in turret (usually detached and stowed when not airborne on ops). Basically identical to USN equipment except armour plating not used on any of gun mounts in RAF service. See separate note for tunnel gun.

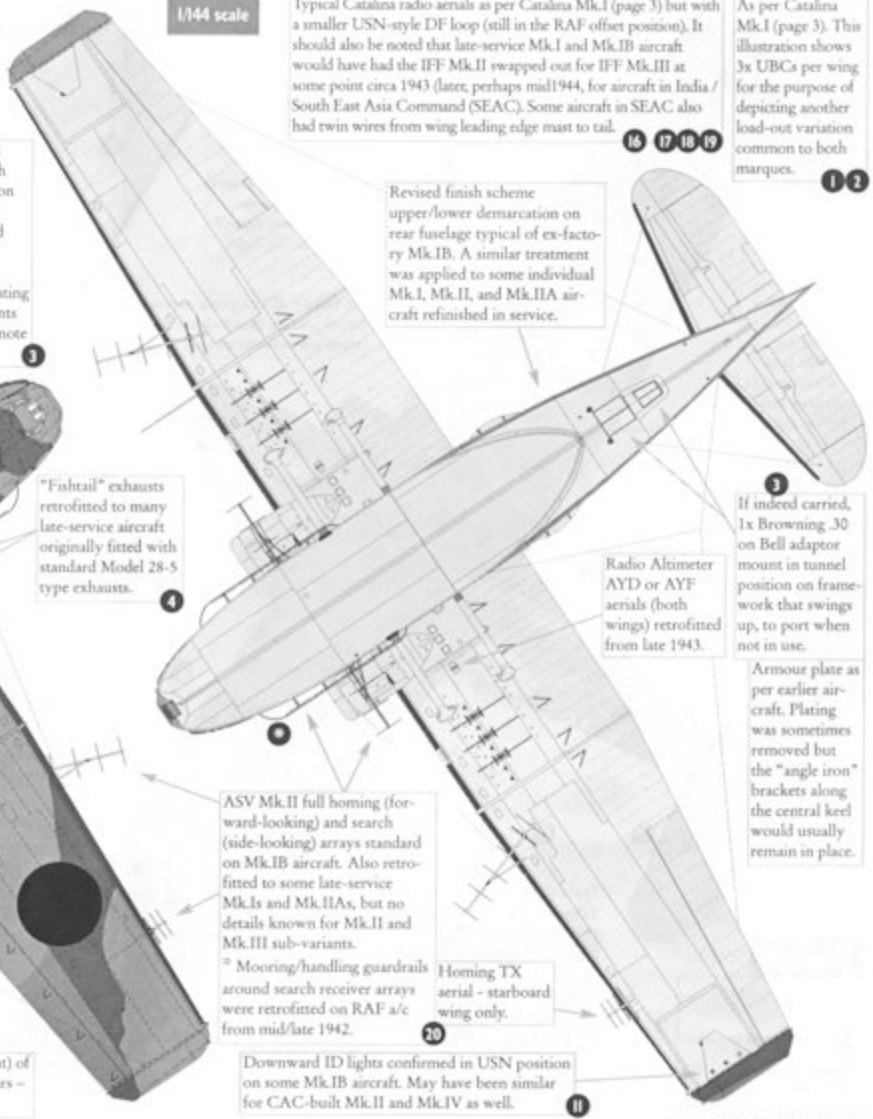
**4**  
“Fishtail” exhausts retrofitted to many late-service aircraft originally fitted with standard Model 28-5 type exhausts.

**Typical TSS colours**

Dark Slate	(fresh variation)
Grey (laded)	
Extra Dark	(fresh variation)
Sea Grey (laded)	
<b>Sky</b>	Bottom (when retracted for flight) of floats in upper camouflage colours – typical of ex-factory Mk.IBs

Typical premature weathering of fabric-covered upper surfaces simulated in this Mk.IB illustration. Effect applies generally to all TSS-finished Catalinas.

1/44 scale



Typical Catalina radio aerials as per Catalina Mk.I (page 3) but with a smaller USN-style DF loop (still in the RAF offset position). It should also be noted that late-service Mk.I and Mk.IB aircraft would have had the IFF Mk.II swapped out for IFF Mk.III at some point circa 1943 (later, perhaps mid-1944, for aircraft in India / South East Asia Command (SEAC)). Some aircraft in SEAC also had twin wires from wing leading edge mast to tail.

As per Catalina Mk.I (page 3). This illustration shows 3x UBCs per wing for the purpose of depicting another load-out variation common to both marques.

Revised finish scheme upper/lower demarcation on rear fuselage typical of ex-factory Mk.IB. A similar treatment was applied to some individual Mk.I, Mk.II, and Mk.IIA aircraft refinished in service.

**3**  
If indeed carried, 1x Browning .30 on Bell adaptor mount in tunnel position on framework that swings up, to port when not in use.

Armour plate as per earlier aircraft. Plating was sometimes removed but the “angle iron” brackets along the central keel would usually remain in place.

ASV Mk.II full homing (forward-looking) and search (side-looking) arrays standard on Mk.IB aircraft. Also retrofitted to some late-service Mk.Is and Mk.IIAs, but no details known for Mk.II and Mk.III sub-variants.  
 † Mooring/handling guardrails around search receiver arrays were retrofitted on RAF a/c from mid/late 1942.

Homing TX aerial – starboard wing only.

Downward ID lights confirmed in USN position on some Mk.IB aircraft. May have been similar for CAC-built Mk.II and Mk.IV as well.

**Catalina Mk. IV / Mk.IVB in RAF (India/SEAC)  
Service – Finish, Markings, &  
Version Notes**

6  
Identical to Mk.IB configuration (see page 4)

18  
IFF Mk.III  
Usually USN equivalent ABK with whip aerial at top fin here, but some aircraft upgraded with IFF Mk.III in UK had Type '90 "sword" aerial on lower surface of outer port wing panel instead.

Formation lights (see note, bottom of page 3)

**Typical T55 (ASW) colours**

Dark Slate
Grey (faded)
Extra Dark Sea Grey (faded)
White

1, 2  
USN Model 28-5 type ordnance winching points: Oriented chord-wise, the inboard pair are positioned directly over the lateral side-beams of the torpedo rack. Oriented span-wise (i.e. rotated 90° relative to those inboard), the outboard pair, and positioned over the USN bomb racks which were installed inside the wing on the rib structure just above the lower surfaces. The 16 winch mounting holes were plugged with neoprene bungs while cable orifices each had a small screw-on metal cap.

1/44 scale

2 or 3? both wings, upper surfaces only. Usually the larger roundel but some conversions from earlier Type B (i.e. decal #1) roundels seem to be the smaller one. Smaller roundels also photographed on the wing under surfaces on some late SEAC service air; used on special ops.

20  
ASV Mk.II homing-only Duplex (TX and RX on the same aerials) standard on many Mk.IV / IVB aircraft. ASG was installed on some late-production / late-service aircraft, with scanning dish in a pod mounted on top of the fuselage above the cockpit area.

19  
Windscreen Wipers ex-factory on some but often removed.

4  
"Fishtail" exhausts on production Mk.IV / IVB.

Note bomb-aimer's window with "roll-top" cover opened

both wings, see note above 3 or 2?

3  
Gun armament per Mk.IB (see page 4). It is reasonable to assume that the CAC-built Mk.IVs would have had the same US guns as the CAC-built Mk.IBs, but it is not known if the smaller calibre guns on the CV-built Mk.IVBs were Browning .303s instead of American .30s. See separate note (below, right) for the tunnel gun station.

4  
Fuel dump pipes standard on Mk.IV / IVB aircraft, but sometimes installed only on one wing(?)

16, 17, 18, 19  
Typical Catalina radio aeriels as per Catalina Mk.IB (page 4) IFF Mk.II swapped out for IFF Mk.III (single whip aerial above tail fin) at some point circa mid-1943 (perhaps later for aircraft in India / South East Asia Command).

3  
If indeed carried, identical to Mk.IB but hatch may also have been converted to an enclosed mirror camera housing. Armour plate notes as per Mk.IB (page 4).

Radio Altimeter AYF aeriels (both wings) standard equipment on Mk.VI / IVB.

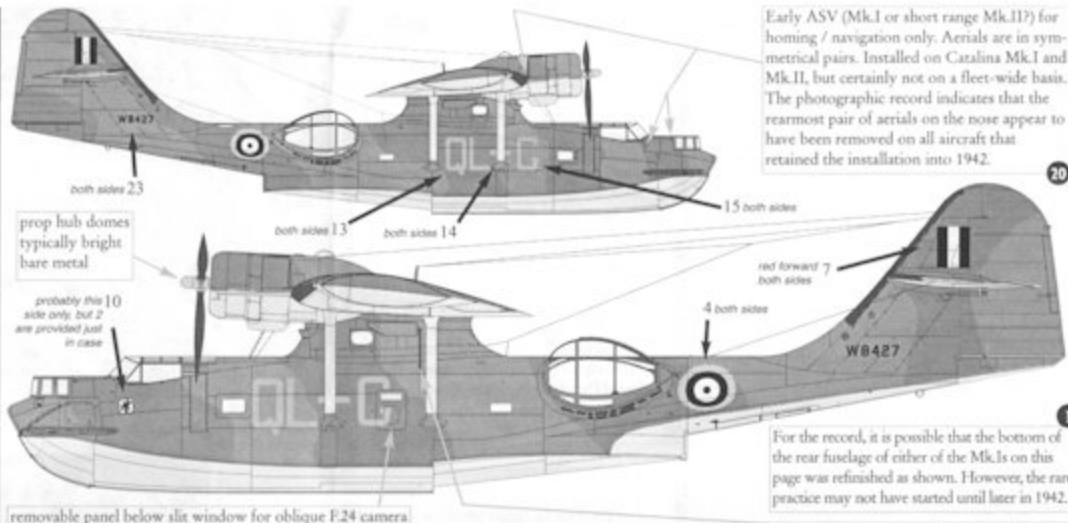
Fixed trim tab mod – not on all Mk.IV / IVB aircraft

1, 2  
Wing centre-section structure all identical to USN Model 28-5s – bomb and torpedo racks included ex-factory. RAF-service aircraft were modified by Saunders-Roe to carry 4x of the more compact late-model UBCs per wing (although the outermost stations were not frequently used) as detailed on page 7.

11, 1  
Downward ID lights may have been in USN position on some (all?) CAC-built Mk.IVs as per Mk.IBs, but confirmed installed on port wing for BAC-built Mk.IVBs.

**Catalina Mk.I W8427 | QL-G of 413 Sqn**  
**Sullom Voe, Scotland | 1941 - March 1942**  
**Koggala, Ceylon (+ Dets) | April 1942 - November 1943**

- S/L Birchall's usual aircraft prior to departure for Ceylon.
- Featured a personal emblem based on a sketch proposing the central element of a squadron badge (ultimately rejected by the College of Heraldry).
- Flown to Ceylon by W/C J.L. Plant, the squadron commanding officer.
- With 413 Sqn in Ceylon from 2 April 1942 to the end of November 1943. The markings scheme represented here were present for the UK-Ceylon ferry flight (Departed Pembroke Dock, 22 March - Arrived Koggala, 6 April 1942) but likely altered to smaller presentation on lower fin section sometime July-August 1942 and again to just the aircraft letter in white on the fin. The national markings were most probably altered to "Type C" in July.
- Last significant action with 413 was successful ASR operations for the survivors of the M/V *Congella* 24 to 28 October 1943. Detached out of Addu Atoll with the CO, W/C L.H. Randall, DFC, and crew the first a/c over the wreck after it had been shelled by the IJN submarine *I-10*. On the 27<sup>th</sup>, they located a lifeboat with 20 survivors, picked up 10, and guided a 240 Sqn aircraft to picking up the others. Returned from Det to Koggala on the 29<sup>th</sup> after an unsuccessful continuation of the search on the 28<sup>th</sup>.



Early ASV (Mk.I or short range Mk.II) for homing / navigation only. Aerials are in symmetrical pairs. Installed on Catalina Mk.I and Mk.II, but certainly not on a fleet-wide basis. The photographic record indicates that the rearmost pair of aerials on the nose appear to have been removed on all aircraft that retained the installation into 1942.

For the record, it is possible that the bottom of the rear fuselage of either of the Mk.IIs on this page was refinished as shown. However, the rare practice may not have started until later in 1942.

removable panel below slit window for oblique F.24 camera



W8427 undergoing repairs in the UK on 17 March 1942, five days before departure for Ceylon. Of the Canadian squadron members present in the photo, navigator W/O G.C. "Bert" Chyette (1) and 1<sup>st</sup> pilot S/L L.J. "Len" Birchall (2) would depart as part of the crew of AJ155 on the 19<sup>th</sup>. The aircraft's chine walkway is being repaired in these photos, with parts of it laid on the nose ahead of the windscreen. Also of note are the early homing-only ASV aerials projecting from the nose (near the turret) and fastened between the wing leading edge and nacelle side. In the close-up, one can see the circular blanking plate (just above and forward of the emblem) where a different transmitter (TX) aerial had been located early on.



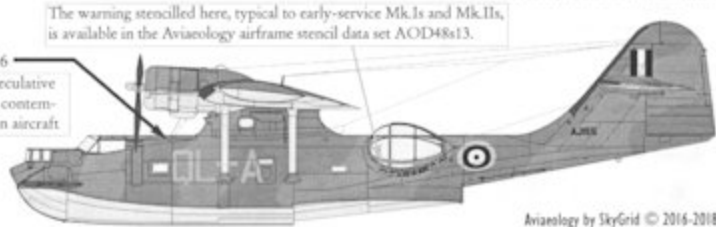
DND PL-7401 via the Carl Vincent collection

DND PL-7401 via the Carl Vincent collection

**Bonus Option**

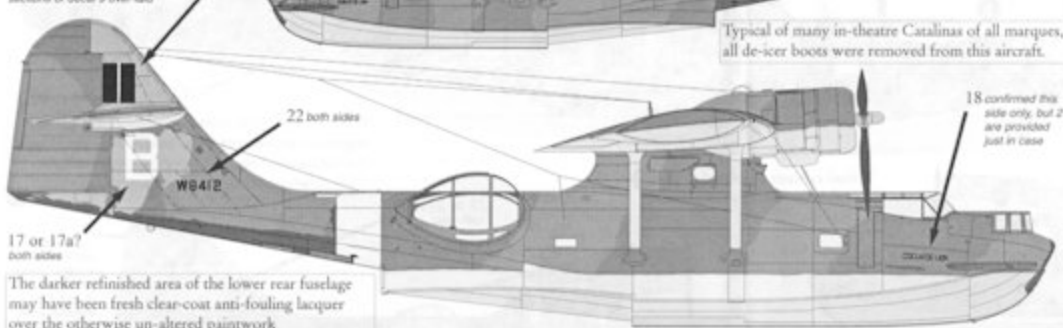
**Catalina Mk.I AJ155 | QL-A of 413 Sqn**  
**Sullom Voe, Scotland, | early 1942**  
**Koggala, Ceylon | 2-4 April 1942**

- Flown to Ceylon by S/L L.J. Birchall and crew (departed Pembroke Dock, 19 March - arrived Koggala, 2 April 1942).
- Airborne for 9 hours, AJ155, with the Birchall crew, were shot down while reporting position of the Japanese fleet they'd just spotted on 4 April 1942.
- Ordnance load for the mission as reported (years after the fact) by AJ155 flight engineer, Sgt Brian Catlin:
  - 2x 250lb AP bombs (likely SAP bombs)
  - 2x 250lb A/S bombs
  - 2x 500lb A/S bombs
- see page 7 for more detailed material on ordnance loads
- Finish condition similar to that for W8427, QL-G:



This profile is a graphic reconstruction of W8412 as it would most probably have appeared in an operational state early-mid August 1942 to late June 1943.

both sides, red forward  
originally conversion of later Type A  
fresh replicate using decal 7 with cut G  
sections of decal 9 over tail



Typical of many in-theatre Catalinas of all marques, all de-icer boots were removed from this aircraft.

The darker refinished area of the lower rear fuselage may have been fresh clear-coat anti-fouling lacquer over the otherwise un-altered paintwork



Decoras anyone? Tired warrior W8412 had just returned from an extended 26 January to 23 June 1943 to western detachment with F/L Buily and crew (8 aircrew plus skeleton groundcrew and a Royal Navy officer) before the plain air major overhaul illustrated in this series of photos was administered. Although subsequently test flown without incident on 27 August, the aircraft was test aside as unserviceable "awaiting disposal."

In the photo at left, the engines, floats, and control surfaces have been removed and refinishing of the hull and rear fuselage have begun. It seems likely that a change in rounded style and more white paint (thus modifying the TSS to approximate the new ASW standard spec) It is also possible that the UK-installed early bombing-only ASV set was to be replaced with a full ASVII set during this overhaul (note TX aerial mounting holes adjacent to nose turret well and RX aerial struts on wing leading edges), although not all early Mk.I's were upgraded.

In the upper right photo, one can just discern spot refinishing approximating the area of the lower fin occupied briefly by 'QL-B' codes in the summer of 1942. The UK-era 'QL-P' painted on the fuselage prior to that may have received a similar treatment the previous summer.

In the last photo a newly remounted engine (perhaps with a cowl from a different aircraft (note finish difference and also the cannibalised Catalina wing in the background) and fresh-looking DF loop aerial are visible. The twin main wire aerials (mast to tail) were present only on some Catalinas.

DND photos PL-1838, 1836, 6 1834



Cast on the rocks: FP103 at Point of Grind, Whalsay, Shetland, after being forced down on the sea, floats-up, in violent weather 8 September 1942. The incident occurred on a long return flight from the Soviet Arctic when severe weather, violent enough to shred the aircraft's ailerons, was encountered not far from the intended destination, Sullom Voe. The crew all made it ashore and were sheltered at a nearby RAF radar station until a launch from Sullom Voe could come pick them up. The aircraft was fairly new when lost.



Shetland Museum photos via the Terry Higgins collection

**Catalina Mk.I W8412 | B of 413 Sqn  
Koggala, Ceylon | August 1942 – August 1943**

- Flown to Ceylon, marked QL-P; by F/L Roberts and crew (departed Pembroke Dock, 19 March - arrived Koggala, 6 April 1942).
- 1<sup>st</sup> operational sortie from new base flown on 10 April.
- Marked as shown in port (lefthand) view from August 1942 onwards.
- Extensive use as a Western Detachment aircraft, detached to points south to the Seychelles and east African coast or north to the Arabian Sea into the Persian Gulf, for extended periods.

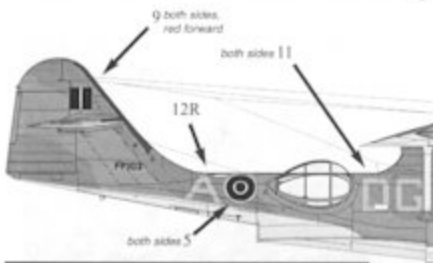


**Catalina Mk.IB FP103 | DG-A of 422 Sqn  
Murmansk, USSR (Det.) | August-September 1942**

- One of three - with FP105 (DG-B) and FP106 (DG-C) - early-production Mk.IBs equipped with full LR ASV.II radar suites.
- Guard rails around the fuselage-mounted search RX aerial arrays are clearly visible in the photographic prints (see item 20, page 4).
- Overload tanks may have been fitted for this detachment. (see profiles on page 10).

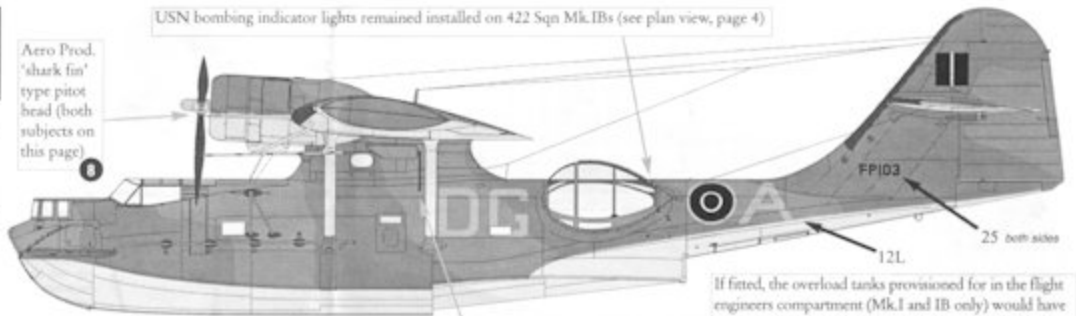
**Catalina Mk.IB FP103 | DG-A of 422 Sqn  
Murmansk, USSR (Det.) | August-September 1942  
(continued from page 9)**

Full Long Range ASV.II homing (side-looking) and search (forward-looking) arrays installed complete with docking / mooring / loading guard rails for fuselage-mounted search receiving arials.



Aero Prod. 'shark fin' type pitot head (both subjects on this page)

USN bombing indicator lights remained installed on 422 Sqn Mk.IBs (see plan view, page 4)

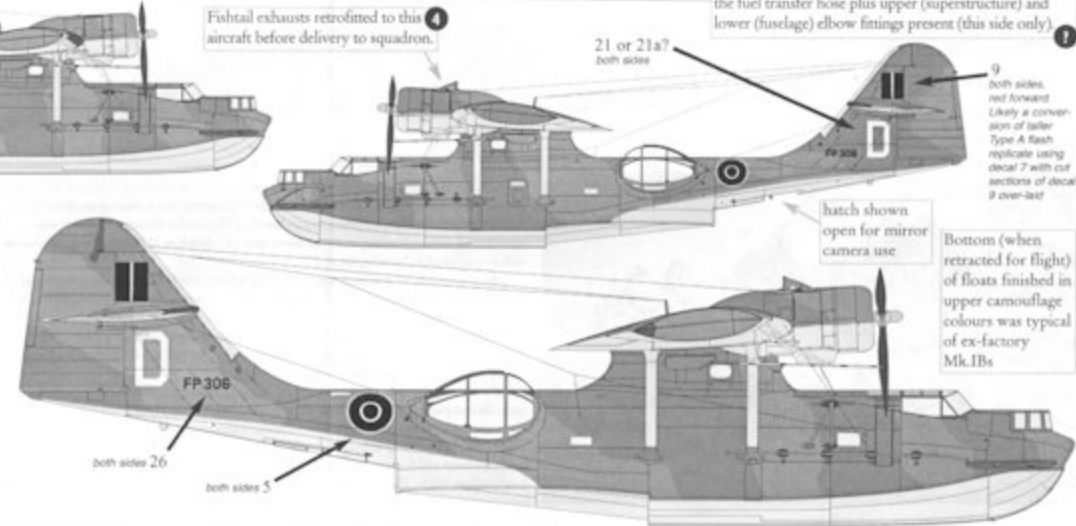


If fitted, the overload tanks provisioned for in the flight engineers compartment (Mk.I and IB only) would have the fuel transfer hose plus upper (superstructure) and lower (fuselage) elbow fittings present (this side only)

Fishtail exhausts retrofitted to this aircraft before delivery to squadron.

**Catalina Mk.IB FP306 | D of 413 Sqn  
Koggala, Ceylon | April - August 1943**

- One on the first two Mk.IBs on squadron, ferried from Stranraer to Koggala by new 413 Sqn crew (plane captain, P/O Gelson) 28 March - 14 April 1943.
- Same plane capt when "3 survivors" (of what is not made clear in existing records) were offloaded after a convoy escort while transiting Malé (Maldives) to Koggala, 20 July 1943.
- Flown out to Bangalore for a major overhaul, August 1943. Returned to base 8 November 1943, F/L Rumbold and crew.
- 6 Dec 1943, Squadron CO, W/C Randall and crew sighted sub while at low-level. Attack initiated, but not enough height gained to use 4x delay-fused 500lb SAP bombs then loaded ("Buster" patrol, in anticipation of encountering IJN cruisers).
- Involved in a number of Busters and ASW patrols through rest of December. On 27<sup>th</sup>, P/O Grandin and crew, with W/C Randall as passenger on Det to Addu Atoll, sub sighted and attacked with 5x Mk.XI D/Cs from 50 feet, one mile from the convoy. Good results were observed, to the extent that the Intelligence Officer requested a "seriously damaged or destroyed" be credited to the Squadron, but nothing further is known.
- Continued use until SOS, 413 Sqn for a major inspection in March 1944.
- Returned to the Sqn later, in well worn original camouflage scheme, SEAC national markings, coded "Z".



Aside from patrolling for enemy surface vessels and submarines, ASW work was a big part of 413 Sqn's work. The official caption for the photo at left states that "two of the rescued seamen sit on the deck of the rescue launch one with his head bandaged while orderlies and members of the Catalina crew help a third man from the aircraft." Aside from the date being 20 July 1943, nothing more could be learned about this incident at time of writing (June 2015).

The photo at right was taken around this same time - probably on the same day. Aside from the relatively clean paint finish, details of note include the drogue (see anchor) stowed hanging on the fin's lower pull-out step, USN style ID lights under the wingtip, and the guardrail affixed to the ASV.II search RX aerial on the forward fuselage. The colour of the fin leading edge is also interesting - either the removal of de-icer boots is a work-in-progress, or it has been coated with the anti-conspicuity white thins in use on RAF anti-submarine aircraft. DND photo PL-18223 G-PL-18229



**Catalina Mk.IB FP182 | G of 413 Sqn  
Koggala, Ceylon | early to mid 1944**

- In bad shape when first arrived on squadron 1 March 1944, with F/O Lonsdale and crew. Needed "top overhaul" before being put to use.
- First op on 413 Sqn, "Stronghold" (ASV patrol to protect against carrier-borne attack) on 14 March.
- Despite early technical troubles, including intermittent ASV problems, active throughout balance of March into April and May, usually with the Lonsdale crew.
- Down for a major inspection at Koggala in June. 413 Sqn service unclear thereafter, but served with other ACSEA squadrons, including Special Operations activities, through 1945.
- SOS RAF 28 February 1946.

*Use of Birchall's emblem on this aircraft is speculative at best. Based on close examination of the less-than-ideal photographic print, and on the notion that the long-serving previous "G", W8427 (see page 8), had just been struck off before this aircraft's arrival.*

**SEAC National Markings Variations:** Early theatre markings were usually conversions of the standard roundels and flashes applied at the factory or in the UK. The central red of the roundel were over-painted white initially, with a corresponding change to the fin flash eliminating the red. By the summer of 1944 (on Koggala's Catalinas at least) light blue had replaced the white. Roundels appear to have been either simple conversions or freshly applied. Maintenance and Ops schedules may have been a factor in the apparent randomness.

FP182 pictured at Koggala picketed in front of a 230 Sqn Sunderland and a Catalina Mk.IVB armed with six Mk.XI depth charges, circa April–June 1944. Despite the poor quality of the photograph, the general conditions of the fuselage can be discerned. It appears typical of Catalinas refinished from the ex-factory Temperate Sea Scheme with Sky under surfaces to the late-war ASW scheme (TSS tops with almost completely matt white side surfaces and gloss white under surfaces. One presumes that, if the factory finish on the hull did not receive the proper prep work prior to overpainting with white, then high-speed water erosion of the wetted area would be a possible result. The de-icer boots were usually removed on Catalinas that remained in SEAC for any length of time. The paired leading edges of the wings, tailplanes, and fins are fairly obvious. Those of the Mk.IVBs in the background appear similar.

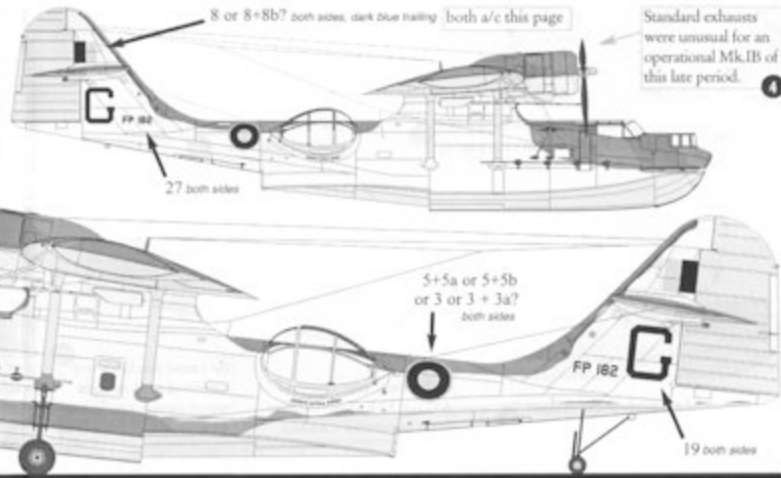
**Catalina Mk.IVB JX276 | Z of 413 Sqn  
Koggala, Ceylon | early to mid 1944**

- Together with JX281, one of the first two Mk.IVBs to arrive on squadron, April 1944 (exact day unknown). However, both quickly went unserviceable "awaiting self-sealing hose."
- The squadron's 1st operational Mk.IVB mission, a U-boat "Hunt to Exhaustion" search by F/L Gelmon and crew launched at 0945 hrs on 3 May and returned to a night landing at 0332 on the 4<sup>th</sup>.
- Exclusive boat of this crew, regularly flying anti-submarine sweeps or escorts through to 22 June when Gelmon completed the final mission of his tour.
- By the end of July, JX276 was no longer on the Squadron's books, and the old "D", FP306, had returned to become the new "Z".

Starboard profile is a graphic reconstruction illustrating the intended camouflage scheme if new or renewed. Typical of Catalinas finished in TSS at the factory but refinished in the revised ASW scheme at the user unit or servicing echelon level.

Pitot head appears to be of the type used on earlier Mk.I's

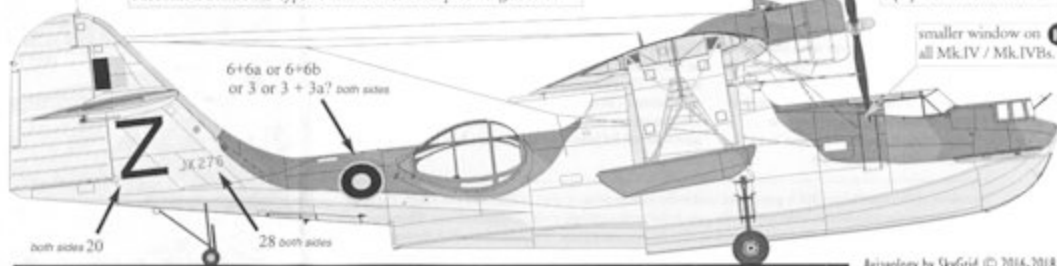
de-icer boots removed as with W8412 (page 9).



USN ABK (IFF Mk.III equiv.) aerial comms on Mk.IV / Mk.IVBs, but some a/c had RAF type 90 aerial under outer port wing instead.

Fishtail exhausts standard equipment on Mk.IVBs.

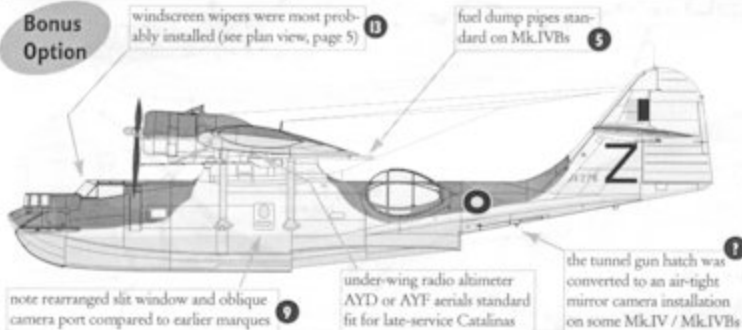
smaller window on all Mk.IV / Mk.IVBs.





• Squadron aircraft for the end of November 1944 were Mk.I AH549 (W), Mk.IBs FP306 and FP323 (A), and Mk.IVBs JX299 (Y), JX333 (F), JX346 (B), and JX357 (V). 1<sup>st</sup> week of December were final Ops in SEAC.  
• JX276 as sold to the Netherlands circa summer 1946.

**Bonus Option**



note rearranged slit window and oblique camera port compared to earlier marques

under-wing radio altimeter AYD or AYE aerials standard fit for late-service Catalinas

the tunnel gun hatch was converted to an air-tight mirror camera installation on some Mk.IV / Mk.IVBs

The slightly darker tone used to represent the white under-surfaces in this profile indicates the area typically treated with either a gloss white (No. 302A Glossy White) topcoat, or an anti-fouling gloss clear coat over the otherwise matt white camouflage paint finish. The demarcation illustrated here seems to have been the *de facto* standard while that illustrated in the starboard view on page 11 indicates the specification standard. All earlier TSS-finished Catalinas also received the clear coat treatment.

**Defensive Armament and Vertical Camera Mount Details**



the Terry Higgins collection

This posed PR picture has a US Navy airman carrying a Browning .30, complete with ammo box holder, spent links tray and pintle adaptor attached, aboard a Towers Scheme Catalina Mk.IB trainer, FP179. On operational RAF Mk.IBs, the .30 was mounted on a Bell GM-19 type recoil adaptor for the nose turret and turret positions, and single Browning .50s would be mounted in each blister. This photo also offers a good look at some aspects of the TSS paint scheme difficult to see in B&W images; note how the feathered transition between the two upper colours appears to be more "loose" than that along the upper / lower demarcation.



A nice detailed of the Browning .50 cal used in the waist "blister" positions on the Catalina Mk.IB, Mk. IV, and Mk.IVB. The complex Bell recoil adaptor mounting is the same as that used on USN aircraft but without the armour plating usually installed on the PBVs. The pintle plate on this particular aircraft has been adapted to mount a DR compass; this feature was not always present. This gun appears to have an ammo box tray attached, while USN guns were belt fed from huge boxes on the floor of the compartment.

DND for the Terry Higgins collection



the Carl Lambert collection

BAC-built Catalina Mk.IVB JX286 at the Saunders-Roe Beumaris facility in March 1944 – the company was the primary contractor responsible for bringing Catalinas up to operational equipment standard at the time. The anti-submarine warfare (ASW) modified TSS finish (detailed elsewhere in this document) is typical of the BAC Mk.IVBs and CAC Mk.IVs of the period, but it should be noted that the Type C1 roundels applied at BAC were 34 inches in diameter (vice the RAF spec, 36 inches). While JX276 would have had this version of the scheme when it was ferried east, aircraft later refinished in service by the RAF may have had the higher upper/lower demarcation illustrated in the plan view page 7 and seen on JX431 (page 6). Other scheme variations – including overall Extra Dark Sea Grey uppers – came later.

The radar pod mounted above the cockpit housed the scanner and transmitter for ASG radar (frequently and erroneously referred to as ASD) which seems to have been installed on a special-order only basis, depending on whether or not the unit for which any given aircraft was destined was trained in its use. The duplex TX/RX aerials of the older ASVII remained for navigation and IFF interrogation purposes. 413 Sqn's first two Mk.IVBs (JX276 and JX281) arrived in April 1944 without ASG, but some of its subsequent arrivals may have had it, for the squadron's top radar mechanic went on a special ASG course in early June. After a time at the Coastal Command Development Unit, JX286 was ferried out to, 205 Sqn at Koggala in late 1944 where it served alongside a number of ex 413 Sqn Catalinas until June 1945.

Note that this aircraft also has late-model oil cooler fairings with two auxiliary bay cooling intakes scabbled on its flanks.



DND PL-4012



DND PL-4631



DND HC218143

This photo shows a swing-up tubular framed camera mount locked in the deployed position in an early Catalina Mk.I at RCAF Station Rockcliffe in September 1941. Note the brackets for the external armour plates affixed to the stowed hatch, and a Fairchild vertical camera installed in the rear bay of the mount. While the plate with circular mounting hole closer to the photographer would take the viewfinder, it could also mount the smaller Williamson F24 or its American equivalent, the Eastman Kodak K-24, with a simple 45° mirror housing mounted underneath for photographing attacked targets to the rear of the aircraft on ASW sorties.

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Two views of the twin Vickers .303 K gun mount used in the waist position on the Catalina Mk.I and Mk.II. The single mounting post was articulated in order to place the gun in the vertical stowage position illustrated here. When deployed for action, the post "knuckle" locked with the gun level in the horizontal plane. The pedestal to which the mounting post is affixed is the same as that for the other versions. Two banks of three ammo drums were stowed in two vertical racks (one of which is visible behind the ganster in the upper photo) on the forward bulkhead of the compartment.