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Sole surviving Stranraer CF-BXO looking somewhat neglected and missing the port engine after its use in civilian hands was over and before coming to the RAF Museum. (CanAv)



Development of Supermarine's single engine seaplanes

Walrus I W2706, of the RN/RAF combined Air Sea Rescue Flight, North Africa. This photo probably taken at Bu Grara in March/April 1943, when the unit was flying rescue patrols along the Tunisian coast during the Mareth Line battles. Note the pale wing float – possibly an aluminium-doped replacement, or perhaps painted white or yellow for enhanced visibility?

(IWM CNA 452)

Between 1919 and the flight of the prototype Seagull V in 1933, Supermarine produced a bewildering array of single-engined flying boats. Each of these was a development of the machine before, usually leading to the next design, but sometimes they were simply rebuilds using parts of the previous design, which were then renamed and sold again.

As we have seen, Supermarine were in the habit of developing successful (and not so successful) types into newer versions. The sequence of single-engine biplane flying boats is quite straightforward, although the variety of uses to which they were put is not so clear! Unclear too, is the rationale of the development of the Walrus from the Seagull V; a certain amount of surmise is necessary.

To consider the Seagull V we must look first at the Seagull III – which was itself actually only a variant of the Seagull II.



Walrus Mark identification.



The Walrus was used in a wide variety of roles and in as extreme a range of climates as the earth can provide, yet the layout did not change from the first prototype to the last machine built. There were only two hull types: metal for the Seagull V / Walrus Mk.I, wooden for the Walrus Mk.II. Otherwise the only differences lie in which fittings were bolted on or taken off. Despite this simplicity, Walruses are often misidentified, but close study of the photographs and plans presented here will clarify this differentiation. Sadly, all of the plans the authors have seen so far are incorrect in many aspects, and excepting information from the aircraft's own handbooks, most published information is to be treated with suspicion. To clarify, we therefore present a list of the differences.

Seagull V prototype.

Essentially a hand-built one-off, the first of the line has a number of features which are unique to it and it alone - helpful when one considers the number of schemes it went through, as well as the number of photographs taken of it!

Top:

Seagull V prototype marked as N-2 (originally marked as "N-1"). Subsequently allotted the RAF serial K4797.

(RAF Museum P13374)

Right:

Lt Commander Caspar John in the cockpit of the Seagull V prototype being hoisted aboard HMS Courageous in Portsmouth Harbour at the start of the first sea trials in February 1934. Numerous details are worth identifying, including the two compasses mounted on the bow, and the non-standard (for later Walrus and Seagull V) ladder for access to the engine.

(FAAM)



The Stranraer

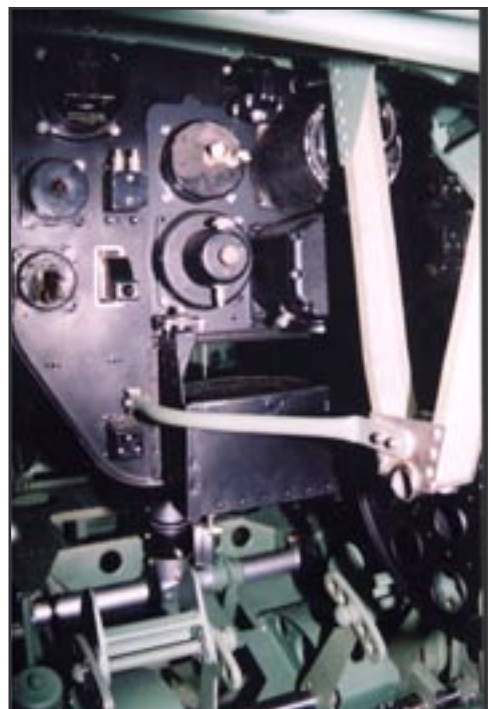
The pace of development in this period can be very well illustrated by the fact that Mitchell designed an altogether bigger type based on the Scapa work, but with a 12% increase in wingspan, area and weight. Powered by the moderately supercharged Pegasus IIIM, the performance was such that it was able to exceed the performance of any other British flying boat in its class. Even more telling of the rapid development and better structured and more analytic approach to testing was the fact that the Stranraer's larger hull managed to match the hydrodynamic performance of the Scapa's in tank tests at St Albans.

With war clouds gathering, the Air Ministry ordered seventeen Stranraers. Their eyes were on the newer machines that were due for wartime use, such as the Sunderland and Lerwick. The Stranraer was a very workmanlike aircraft in RAF use, coming as we have seen after a long line of flying boat reconnaissance machines. A flight of five Stranraers of 228 Squadron took a 4,000 mile cruise in 1938, culminating in exercises with the Mediterranean fleet from Malta, after staging through Lisbon and Gibraltar - very much in the model of the Southampton's earlier cruises. However, while the RAF were getting maximum benefit from their 17 machines with service in four squadrons and two training units, the crews would have been looking to the much more modern monoplane aircraft which were in service during the Stranraer's era. Remarkably quickly, these more modern machines had

Interminable hours were spent by Stranraer crews on patrol. Stranraer 922 is prepared for a particularly long one, as the long-range overload tank can just be seen below the port wing. This aircraft was burned and sank at its mooring at Alliford Bay, B.C. on New Year's Eve, 1941, due to 'carelessness'.

(Shearwater)





WALRUS - Floats & Undercarriage



This hard-used Walrus Mk.I being hoisted back aboard ship shows a good deal of otherwise unseen detail.

Two canvas sea-anchors are still deployed, hanging below the fuselage. Many of the access panels and inspection ports are visible as is the outline of the folding flaps on the lower wings. Although the camouflaged scheme is extremely worn and effectively indecipherable, two SEAC stars and bars can be discerned:

one on the fuselage, the other on the port wing. Unusually, sealant has been needed on the hull joints to prevent water ingress.

(FAAM) The wing float details. The production Walrus' float was deeper than the fatter and more flattened Sea Otter floats, and apparently larger than the prototype Seagull V.

(All JDK)



STRANRAER- Wings



Top:
Stranraer 949 displays its RCAF roundels and fin flash as well as the wear and tear flying boat operations engender. (Shearwater)



Above: *Early four-blade wooden propeller shown here in a photo from a private album. (Shearwater).*

Above Right: *The engines and nacelles on 920. The nacelles are the same as service Stranraers, but only civil machines were fitted with the Wright engines. (JDK)*

STRANRAER- Cockpit



Unfortunately, the interior of 920 is gutted, thanks to theft while in open store in Canada, so there is no instrument panel and almost no internal fittings left. The cockpit glazing of Stranraer 920 clearly shows a family resemblance to the Walrus, although much larger. The view from the pilot's seat (centre) shows how substantial the structure is.

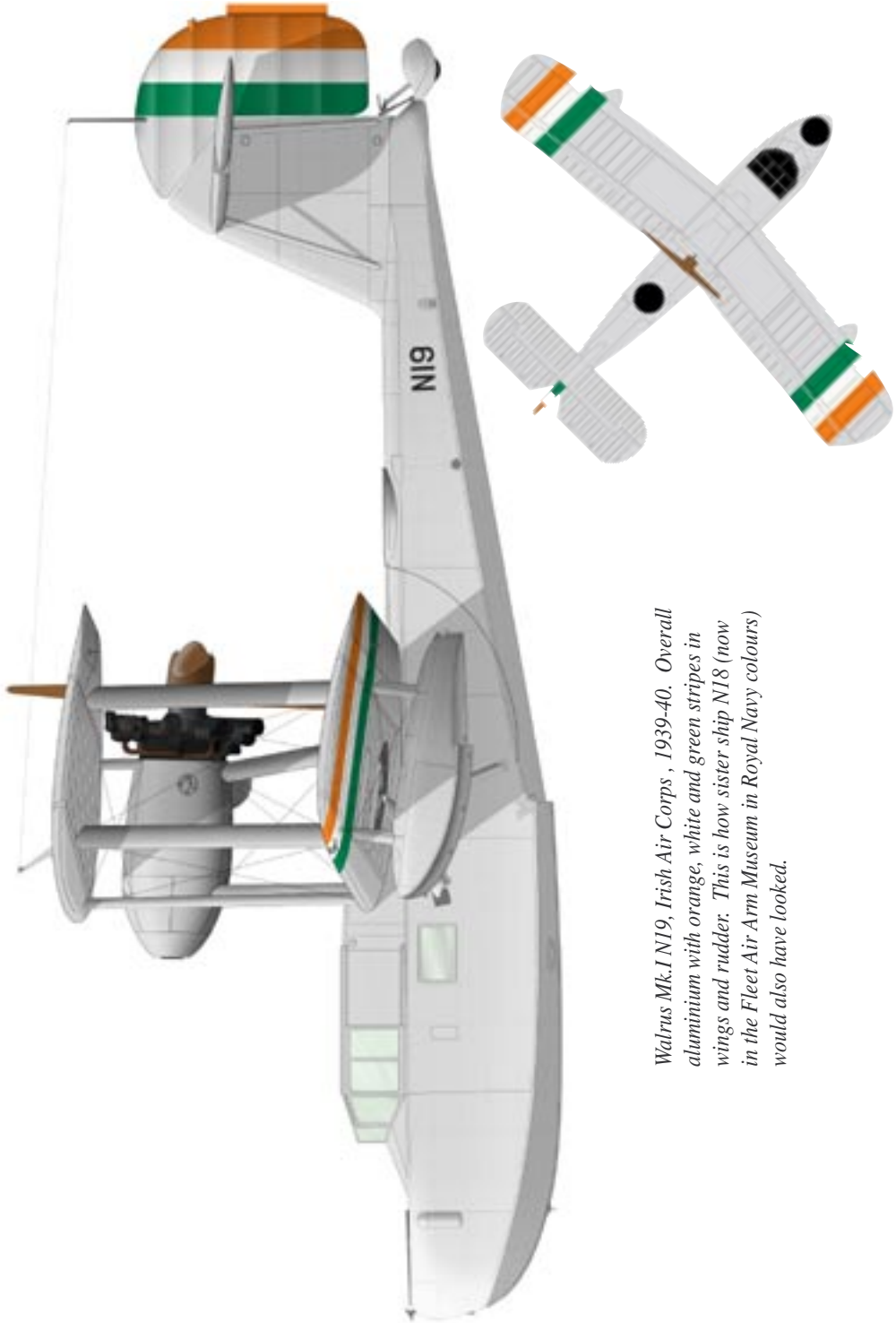
(JDK/RMW)



Stranraer 915 FY-B, 4 (BR) Sqn RCAF, RCAF Station Ucluelet, Vancouver Island, British Columbia. Seen in overall aluminium finish with type B roundel on the hull. Note the wooden four bladed propeller comprising two two-bladed units.



Stranraer 937. 9 (BR) Sqn RCAF, RCAF Station Bella Bella, British Columbia, 1942-43. Seen in four colour counter shading. Lower surfaces are in sky. No codes carried at this time. This aircraft was seen in photographs with all guns mounted - unusual on most Stranraer operations.

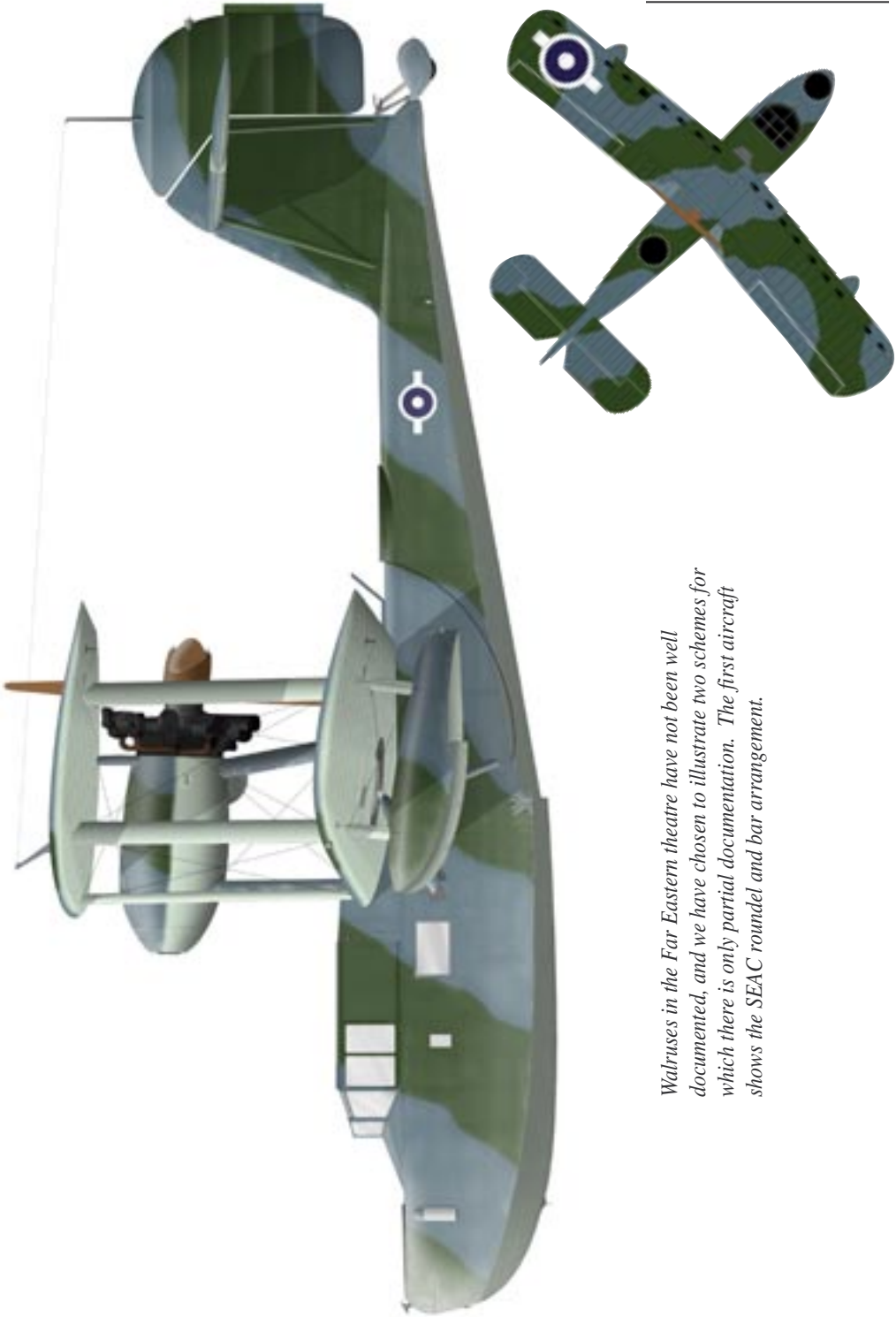


Walrus Mk I N19, Irish Air Corps , 1939-40. Overall aluminium with orange, white and green stripes in wings and rudder. This is how sister ship N18 (now in the Fleet Air Arm Museum in Royal Navy colours) would also have looked.



RAAF ASR Walrus Mk.I „Rescue Girl” (unknown serial) serving with 71 Wing in the Admiralty Islands, Sept 1944. Colours of the mermaid are unconfirmed. Note the primer painted front half of the engine nacelle.

Colour profiles



Walruses in the Far Eastern theatre have not been well documented, and we have chosen to illustrate two schemes for which there is only partial documentation. The first aircraft shows the SEAC roundel and bar arrangement.