

THE ADMIRALTY N.3 AND N.4 FLYING BOATS (RAF TYPE SPECIFICATION XXX AND XXXIII)

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Above and Below: N120 after the hull was holed in shallow water at St Mary's, Scilly Isles. The airscrews were taken from the wrecked Vickers Valentia N124.
:via P. London & G.S. Leslie

With the announcement of the Armistice in November 1918 work on prototypes and experimentation did not immediately cease. There was always the possibility that the Armistice could fail. Once the extent of Germans' collapse was seen, the British Government cancelled contracts wherever it could. Some projects were stopped immediately while others lingered on for years. It is in these circumstances that the story of the N.3 and N.4 flying boats takes place. The published story of these flying boats is confusing, and it is hoped that this attempt will throw some light on these interesting projects that would have served if the war had continued.

A Table entitled *RAF Peace Establishment - Type Machines* was compiled by the Technical Department and issued on 25 November 1918. Under the heading 'Large Boats' it lists the Short Cromarty and Vickers Valencia, each with two Condor engines, and the Fairey Atalanta with four Condor engines as the recommended future large boat seaplanes for the RAF. The design was stated to be *In hand* and a competition would be held in May with a decision made the following July.¹

These seaplanes are the forgotten flying boats of the Great War. They were too late for the war and the reductions of the post-war period killed them before they had any chance

to show what they could perform. The Admiralty looked to building two types of experimental flying boats in 1917, and by January 1918 draft specifications for the Types N.3 and N.4 were prepared for discussion.² The types were taken over after the amalgamation of the RNAS and RFC as the RAF Type XXX and Type XXXIII respectively.

According to C.F. Andrews, the N.3 boat was intended as a replacement for the Felixstowe F.5 as that boat had not shown a marked improvement over the F.3.³ The N.3 is referred to as a 'Submarine Bomber' in a January 1918 Memorandum. It was stated that the N.3 could be fitted with two Liberty 400-hp or two Rolls Royce Eagles at a reduced load.⁴ The specification was discussed at a Technical Committee meeting on 24 January 1918. The Specification of Particular Requirements to accompany the General Specification for the Experimental Type N.3 stated that the machine was to be a large twin-engine boat seaplane with accommodation for a crew of five. The weight per horsepower should not exceed 15-lbs. The machine was to be designed for mooring out for long periods. While streamline wire for external bracing was preferred, it was not regarded as imperative. Special attention was to be paid to the *ease of handling in the air with a view to reducing the physical exertion required of the pilot on extended flights.*

The engines were to be Siddeley Tigers giving 600-hp each at 1600rpm and requiring a left-handed airscrew geared to 900rpm. The Tiger engines weighed 1300-lbs dry with starting motor. Alternatively, Rolls Royce Condor engines of 550-hp, with left-handed airscrews geared to 900rpm, were to be considered. The Condor weighed 1300-lbs dry with starting motor. All petrol and oil tanks were to be made self-sealing.

The weight of the bare hull was stated not to exceed 12% of the total weight of the fully loaded machine. *The total displacement of the hull when completely submerged to the lowest opening which cannot be made water-tight in the air, should not be less than four times the total displacement of the machine fully loaded in sea water at 64 lbs. to the cubic foot, and*

