



THE FELIXSTOWE FLYING-BOATS . . .

brought it down on the water. The crew consisted of Flt. Cdr. F. W. Walker, Flt. Lt. E. A. Bolton, Leading Mechanic Walker and Air Mechanic Henderson; they all owed their lives to home-made wireless apparatus which anticipated by a quarter of a century the dinghy radio of World War II. On board the flying boat was a five-foot linen box-kite and aerial with which Ldg. Mech. Walker had been experimenting at Great Yarmouth; and with its aid the crew were able to establish and maintain wireless communication with their base. Fixes were obtained by shore stations, and the crew were picked up by H.M.S. *Glow-worm* eight miles downwind from the position she had been given.

The principal defect in the fuel system of the F-boats lay in the great length of piping it contained. The main tanks were in the hull, and wind-driven pumps forced the fuel up to a gravity tank in the upper centre-section; the carburettors were fed from the gravity tank.

The enemy had no aircraft comparable with the F-boats. His oversea patrols were performed by float seaplanes, principally Friedrichshafen FF.33 variants, with some Gotha W.D.14s and Brandenburg GWs for long range work and torpedo-dropping. For fighting, the Brandenburg W.12 two-seat floatplane proved to be a useful weapon: the W.12 and its successor, the W.29 monoplane, were thorns in the flesh of the F-boats, for the Brandenburgs were small, fast and manoeuvrable, whereas the flying-boats were large, slow and cumbersome. Nevertheless, the

boats' heavy armament enabled them to give a good account of themselves, as shall be told, and the Brandenburgs did not have things all their own way.

One of the F.2As of Felixstowe air station was fitted with two gunners' cockpits on the upper wing; each of the elevated gunners had a pair of double-yoked Lewis guns on a Scarff ring, and the bow cockpit was similarly equipped. This experiment was probably intended to produce an escort fighter to accompany and protect the patrolling flying-boats; but it seems to have been unsuccessful.

On May 10th, 1918, the Zeppelin L.62 was attacked by an F.2A from Killingholme air station at 8,000 ft above the Heligoland minefields; the boat was flown by Captains T. C. Pattinson and A. H. Munday. The latter officer manned the bow gun, and both he and the F.2A's engineer, Sgt. H. R. Stubbington, appeared to score many hits. The Zeppelin flew away eastwards, losing height, and was later seen to explode and fall in flames. A broken oil feed pipe forced the F.2A down on the sea, but the break was repaired by Sgt. Stubbington and the flying-boat took off in time to escape the vengeful attentions of seven German destroyers.

The F.2A remained in service until the Armistice, after which it was superseded by the F.5. It is doubtful whether a distinct F.2B variant was built, but that designation has come to be applied to an open-cockpit version of the F.2A.

The F.2C did not proceed beyond the prototype stage. It had a lighter hull with steps of revised design and a forebody with contours rather different from those of the F.2A. The pilot's cockpit had no cabin top, and the bow cockpit was farther back