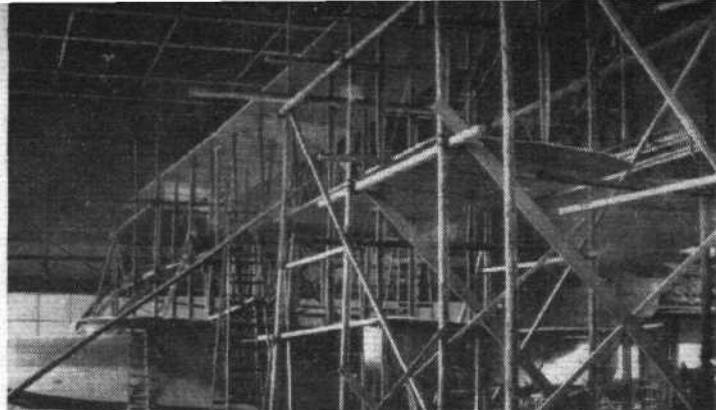


This photograph of the Curtiss four-engined triplane flying-boat being assembled at Felixstowe makes a curious contrast with modern erection methods. Note the wooden scaffold-poles.



THE FELIXSTOWE FLYING-BOATS . . .

ever. Worn out by the strain of intensive work, occasional operational flying, and even of fighting litigation against him, John Porte died suddenly at Brighton in October 1919. He was not quite 36 years old.

Before his death he had seen the Atlantic flight accomplished by a flying-boat: that was in May 1919. The boat, designed by the Aircraft Division, Bureau of Construction and Repair, U.S. Navy Department, had been built by the Curtiss Engineering Corporation. It was one of a Flight of four which had been led by Cdr. John H. Towers, U.S.N., who, as a lieutenant, had been concerned with an earlier Curtiss flying-boat less than five years before. Then, too, the objective had been the Atlantic flight.

John Porte's contribution to victory was assessed with nice

parsimony by the Royal Commission on Awards to Inventors: his widow received the sum of £1,500 in respect of his work on the development of flying-boats. Doubtless the official view was that what he did was in the normal course of his duties.

But the final word and, perhaps, the best assessment can be left to Sir Walter Raleigh. Writing of John Porte in *The War in the Air* he said: "The shortest possible list of those who saved the country in its hour of need would have to include his name."

DATA ON THE FELIXSTOWE FLYING-BOATS

MANUFACTURE

All prototypes were built at the Seaplane Experimental Station, Felixstowe. Production was undertaken by the following contractors: The Aircraft Manufacturing Co., Ltd., Hendon, London, N.W. (May, Harden and May, Southampton Water); Porte Baby, F.2A and F.5. Dick, Kerr and Co., Ltd., Preston: F.3. The Gosport Aircraft Co., Ltd., Gosport: F.5. Dockyard Constructional Unit, Malta: F.3. The Phoenix Dynamo Manufacturing Co., Ltd., Bradford: F.3. S. E. Saunders, Ltd., East Cowes, Isle of Wight: F.2A and F.5. Short Brothers, Ltd., Rochester: F.3 and F.5. The Norman Thompson Flight Co., Bognor Regis: F.2A hulls. Canadian Aeroplanes, Ltd., Toronto, Ontario, Canada: F.5. U.S. Naval Aircraft Factory, League Island, Philadelphia, Pennsylvania: F-5L.

POWER UNITS

F.1: Two 150 h.p. Hispano-Suiza. *Porte Baby*: Three 250 h.p. Rolls-Royce; two 250 h.p. Rolls-Royce and one 260 h.p. Green; three 345 h.p. Rolls-Royce Eagle; three 360 h.p. Rolls-Royce Eagle VIII. F.2: Two 250 h.p. Rolls-Royce. F.2A: Two 345 h.p. Rolls-Royce Eagle VIII. F.2C: Two 275 h.p. Rolls-Royce Mk. II (322 h.p. Eagle VI). F.3: Prototype, two 320 h.p. Sunbeam Cossack; production, two 345 h.p. Rolls-Royce Eagle VIII. F.5: Two 325 h.p. Eagle VII; two 350 h.p. Rolls-Royce Eagle VIII; two 400 h.p. Liberty 12. F-5L: Two 400 h.p. Liberty 12. *Felixstowe Fury*: Five 334 h.p. Rolls-Royce Eagle VII; five 365 h.p. Rolls-Royce Eagle VIII.

ARMAMENT

Porte Baby: Several machine-guns were carried. The Babies with lengthened forebody had a ring-mounting near the bows, and guns were presumably fitted to mountings in the hatchway behind the cockpit. The prototype Baby at one time had a six-pounder Davis gun on the bows.

F.2A: Normally four Lewis machine-guns: one on a ring-mounting on the nose cockpit, one in upper rear cockpit behind the wings, and one in each waist position. Some machines had twin Lewis guns in the nose and upper rear cockpits, and an additional gun was occasionally mounted on top of the cabin structure. Two 230-lb bombs in racks under lower wings.

F.2C: Two Lewis guns on ring-mounting on nose cockpit; two 230-lb bombs in under-wing racks.

F.3: Generally as for the F.2A, but four 230-lb bombs could be carried.

F.5: As for F.2A and F.3, but there were schemes to mount a Davis gun in the bows. Four 230-lb bombs in under-wing racks. The Canadian-built F.5 could have up to eight Lewis guns.

F-5L: Normal armament consisted of one Davis and four Lewis guns, four 230-lb or two 500-lb bombs; maximum defensive armament could consist of the Davis gun and eleven Lewis guns.

Felixstowe Fury: Four machine-guns and a substantial load of bombs could be carried.

SERVICE USE

Porte Baby: R.N.A.S. Stations, Felixstowe and Killingholme. F.2A: R.N.A.S. Stations at Felixstowe, Great Yarmouth, Killingholme, Cattewater, Dundee, Scapa Flow. F.3: As for F.2A; also used in the Mediterranean, probably from Taranto. F.5: Seaplane stations at Felixstowe, Calshot, Mount Batten, Great Yarmouth, No. 230 Squadron, R.A.F. (later No. 480 Flight) Calshot. Navigation Training Flight, Calshot.

ALLOCATION

On October 31st, 1918, the R.A.F. had two *Porte* flying boats (possibly Babies, or one Baby and the Fury), 53 F.2As, and 96 F.3s on charge. All the F.2As and 29 F.3s were at seaplane stations in the United Kingdom; of the remaining F.3s, 18 were attached to the Grand Fleet, 13 were in the Mediterranean, one was at an Aeroplane Repair Depot, 18 were with contractors, and 17 were in store.

SERIAL NUMBERS

3580: F.1. 9800-9820: *Porte Baby*. N.64: F.3 prototype. N.65: F.2C. N.90: F.5 prototype. N.4000-N.4049: ordered from Short Bros. as F.3s; some delivered as F.5s. N.4080-N.4099: ordered from S. E. Saunders as F.2As; some delivered as F.5s. N.4100-N.4159: ordered from Dick, Kerr and Co. as F.3s. N.4160-N.4179: ordered from Phoenix Dynamo Mfg. Co. as F.3s. N.4180-N.4229: ordered from Phoenix Dynamo Mfg. Co. as F.3s, some delivered as F.5s. N.4230-N.4279: ordered from Dick, Kerr and Co. as F.3s. N.4280-N.4309: ordered from S. E. Saunders as F.2As. N.4310-N.4321: F.3s built at Malta Dockyard. N.4370: F.3 built at Malta Dockyard. N.4400-N.4429: ordered from Phoenix Dynamo Mfg. Co. as F.3s. N.4430-N.4479: ordered from S. E. Saunders as F.2As; some delivered as F.5s. N.4480-N.4504: ordered from Aircraft Manufacturing Co. as F.2As; some delivered as F.5s. N.4510-N.4519: ordered from Aircraft Mfg. Co. as F.2As. N.4530-N.4554: ordered from Aircraft Mfg. Co. as F.2As. Between and about N.4560 and N.4568 were F.2As. N.4580 was an F.5 built by Saunders. N.4584 was an F.2A. N.4629 was an F.5, believed built by Saunders. N.4630-N.4637 at least were F.5s built by Gosport Aircraft Co. N.4838 and N.4839 were F.5s.

NOTES ON INDIVIDUAL MACHINES

F.2As used at Great Yarmouth: N.4283, N.4289, N.4291, N.4295, N.4298, N.4303, N.4305, N.4511, N.4512, N.4549 and N.4550.

F.2As used at Felixstowe: N.4302 and N.4533. N.4545 had open cockpits. The F.5, N.4838 had experimental ailerons.

COSTS

F.2A flying boat including hull and trolley, but without engines, instruments and guns, £6,738. Rolls-Royce Eagle VIII engine, each, £1,622 10s.

DIMENSIONS, WEIGHTS AND PERFORMANCE

Aircraft Type	Porte Baby Production	F.1	F.2A	F.2C	F.3 Prototype (Sunbeams)	F.3 Production, Normal Load	F.5 Prototype, Normal Load	F.5 Production, Normal Load	F-5L	Felixstowe Fury, Medium Load
Span (upper wing)	124ft	72ft	95ft 7½in	95ft	101ft 8in	102ft	103ft 8in	103ft 8in	103ft 9in	123ft
Span (lower wing)	—	46ft	68ft 5in	—	—	74ft 2in	74ft 2in	74ft 2in	—	—
Length	63ft	—	46ft 3in	46ft	45ft	49ft 2in	49ft 6in	49ft 3in	49ft 3½in	63ft 2in
Height	25ft	—	17ft 6in	17ft 3in	18ft	18ft 8in	18ft 5in	18ft 9in	18ft 9½in	27ft 6in
Wing area (sq ft)	2,364	—	1,133	1,136	1,429	1,432	1,409	1,409	1,397	3,108
Weight empty (lb)	14,700	—	7,549	6,768	8,270	7,958	8,023	9,100	8,250	18,563
Military load (lb)	1,418	—	1,305	1,122	900	2,181	2,148	720	—	1,560
Fuel and oil (lb)	2,482	—	2,124	2,350	2,455	2,096	2,097	2,862	—	5,130
Weight loaded (lb)	18,600	—	10,978	10,240	11,625	12,235	12,268	12,682	13,000	25,253
Max. speed (m.p.h.) at 2,000ft	87.5	—	95.5	98	88.5 (at 400ft)	93	102	88	87	97
6,500ft	72	—	88.5	94	—	91.5	99	86	—	93
10,000ft	—	—	80.5	91	—	87.5	90.5	—	—	89.5
Climb to 6,500ft (min and sec)	25 05	—	16 40	18 20	27 00	24 00	16 05	30 00	(10 min to 2,625ft)	14 00
Climb to 10,000ft	—	—	39 30	38 00	60 00	—	32 30	—	—	28 20
Service ceiling (ft)	8,000	—	9,600	10,300	—	8,000	11,500	6,800	—	12,000
Endurance (hours)	—	—	6	—	—	6	7	—	7.9	—