

# Atlas deutscher und ausländischer Seeflugzeuge.

## THE FRIEDRICHSHAFEN SEAPLANES

### PART 3 - LATER TYPES FF33

*Compiled by Paul Leaman*

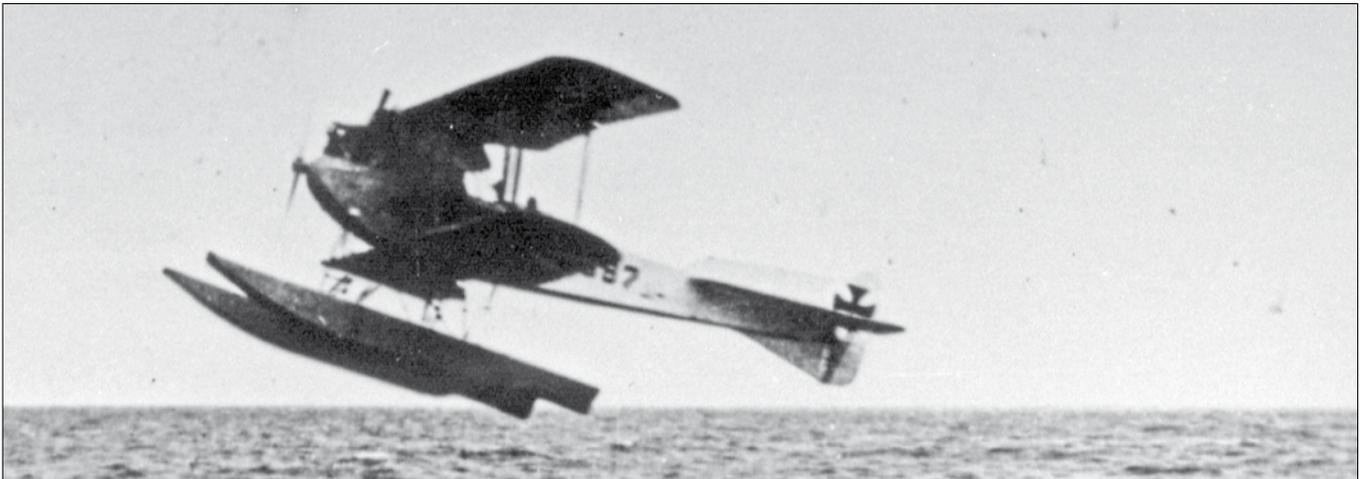
**T**HE FF33H, A TWO BAY BIPLANE, replaced the 33F in service as a fighter/patrol aircraft and a total of 45 of the type were delivered to the navy between March and October 1916. While maintaining the general FF33 appearance, the design of the 33H was cleaned up, with attention being paid to the shape of the floats and the aircraft's nose as well, in some cases, fitting an aerofoil sectioned radiator in the leading edge of the top wing. The float chassis was strengthened by the addition of steel struts between the floats, in place of earlier wires, and some of the wing bracing wires were duplicated to provide a safety factor should the gunner shoot forward between the wings.

The FF33J, a three bay marine reconnaissance biplane, was a further improved version of the FF33 series with a number of aerodynamic refinements. The nose area was cleaned up and a spinner fitted to its propeller. Additionally, headrests were provided for both pilot and observer. It was unarmed but equipped with a radio capable of both receiving and sending messages and comprehensive navigational equipment. It also had stowage space for sea anchors and spares that might be

needed if a fault forced the machine down onto the sea. Sixty were built.

The FF33L was another fighter/patrol variant of the series. It reverted to the reduced two-bay wingspan of the FF33H and a shorter fuselage but enjoyed the improved nose area and spinner of the FF33J. It proved to be seaworthy and capable of landing and taking off from the water in windy conditions. It was armed with a fixed forward firing gun in addition to the observer's weapon and its agility in the air allowed the pilot to make good use of this weapon. On some machines radio equipment was carried and in that case the forward firing gun was deleted. A total of 135 examples of the type were built and saw service with the navy, from stations such as Zeebrugge, as escorts to unarmed reconnaissance seaplanes.

The FF33S was the final FF33 variant and intended for use as a school aircraft. 30 of the type were built. I have found no details of these machines but assume that they followed the shape and size of the 33 J. Also, a number of older FF33 aircraft were converted for training purposes.



A Friedrichshafen FF33H, possibly Marine Number 687, climbing steeply after take off from the open sea.

:W. Evans

TYPE	CREW	ROLE	ENGINE	KNOWN NUMBER BUILT	MARINE NUMBERS & DELIVERY DATES				
FF33H	2	Fighter Patrol	150hp Benz Bz.III	5	596-600: Mar-Apr 1916				
				5	638-642: Apr-May 1916				
				5	664-668: May-Jul 1916				
				5	685-689: Jun-Jul 1916				
				5	695-699: Jul 1916				
				5	730-734: Aug 1916				
				5	741-745: Aug-Sep 1916				
				10	812-821: Sep-Oct 1916				
				FF33J	2	Reconnaissance	150hp Benz Bz.III	8	922-929: Feb-Mar 1917
								2	930-931: Feb-Apr 1917
10	1095-1104: Mar-Jun 1917								
10	1289-1298: Jul-Aug 1917								
30	3031-3060: Feb-Jun 1917								
FF33L	2	Fighter Patrol	150hp Benz Bz.III					10	932-941: Jan-Feb 1917
				10	1001-1010: Mar-Apr 1917				
				10	1085-1094: Apr-Jun 1917				
				10	1117-1126: Apr-Jun 1917				
				20	1158-1177: Apr-Jun 1917				
				45	1234-1278: May-Apr 1917				
				10	1279-1288: Jun 1917				
				20	1577-1596: Aug-Sep 1917				
				FF33S	2	Trainer	150hp Benz Bz.III	30	3001-3030: Feb-Jun 1918