GRUMMAN F3F-2 'FLYING BARREL'

NAAS KINGSVILLE 1942-1943

In 1935 the U.S. Navy placed an order with the Grumman Aircraft Engineering Corporation, then of Farmingdale, for the design and construction of a new fighter, the F3F-1.

Based on earlier Grumman biplane designs, the F3F was faster and more maneuverable than any Navy fighter to date.

Realizing that the days of the biplane fighter were essentially over, the Navy, hoping to buy time until the development of the F4F was completed, ordered the XF3F-2 from Grumman on July 25, 1936.

Major changes included replacing the Pratt & Whitney engine with a 950 hp Wright R-1820-22 (the larger diameter of this engine necessitated a cowling revision which changed the appearance of the aircraft), replacing the original-two bladed propeller with a constant pitch Hamilton-Standard three-bladed assembly, and increasing the rudder area to counter the increased engine torque.

These changes led to an increased speed of 264 mph from the original 231, boosted the climb rate from 2050 to 2750 ft/min and expanded the service ceiling to 33,200 ft from 27,100.

The Navy ordered 81 F3F-2s which were used to equip VF-6 aboard the USS Enterprise and Marine squadrons VMF-1 and VMF-2. The 65th aircraft was modified on the production line to the F3F-3 standard, and subsequent aircraft finished as that model.

By 1939 all U.S. Navy and Marine fighter squadrons flew Grumman biplane fighters exclusively. Of the 164 F3Fs built, 140 were still in service, as trainers in United States at the time of the U.S. entry into World War II in December, 1941.

By the end of 1941 none of the aircraft were in operational service, but 117 of them were distributed to various bases around the country for training and transport duties. NAS Kingsville flew the F3F-2 "Flying barrel" from mid 1942 to late 1943. The last F3F-2 was retired from flying service in November 1943.

Characteristics

Crew: 1 pilot
Length: 23 ft. 2 in.
Wingspan: 32 ft.
Height: 9 ft. 4 in.
Wing area: 260 ft²
Empty weight: 3,285 lb.
Max takeoff weight: 4,795 lb.
Powerplant: 1× Wright R-1820-22 "Cyclone" 9-cylinder radial engine, 950 hp (710 kW)

Performance

Maximum speed: 264 mph at 15,250 ft
Cruise speed: 150 mph
Range: 980 mi.
Service ceiling: 33,200 ft.
Rate of climb: 2,800 ft/min at sea level