



Steve Hinton, Kevin Eldridge and John Maloney flying formation south of Chino Airport, California.

# Grumman F3F-2

*Joe Cupido represented FlyPast during a unique opportunity to see and photograph a formation of rare fighters.*



Two-seater trainer on the ramp at Chino.

**N**ICKNAMED THE *Barrel* because of the shape and size of its fuselage, the Grumman F3F was a redesign of the F-2 'Goblin'. The G-11 F3F-1 was Grumman's improvement on the proven fighter design of the G-8 F2F-1. This was also Grumman's first single-seat fighter for the US Navy and had first flown in October 1933. The F3F-1 looked similar to the F2F, except that its overall size was increased and a larger engine was installed. These and other aerodynamic improvements increased the performance and manoeuvrability of the earlier fighter. The US Navy contract was for the purchase of 54 F3F-1s in 1935. The aircraft were powered by a 700hp (522kW) Pratt and Whitney R-1535 Twin Wasp engine, giving the aircraft a top speed of 215mph (346km/h). They were armed with one 12.7mm and one 7.62mm machine-gun and could carry two 100lb (45kg) bombs on wing stations.

In June of 1936 Grumman proposed a newer version of the successful F3F fighter. The G-19 F3F-2 would be powered by a larger, two-stage supercharged R-1820-22 950hp (709kW) Wright-Cyclone engine. A three-bladed propeller would replace the two-bladed ones on earlier models. These engine improvements would increase the maximum speed of the F3F by 50mph (80km/h). The US Navy ordered 81 F3F-2s and 27 F3F-3s. These aircraft were in the event to have a short service life of only four years. Since the aircraft's wings did not fold, it was very hard to store very many aircraft on carriers. The Grumman F3F would become the last biplane produced for the military by US aircraft manufacturers. When removed from active military service they were replaced by

the much improved Grumman F4F Wildcat.

Grumman produced one civilian version of the F2F, known as the G-22. The aircraft became known as the 'Gulfhawk' and was flown by Major Al Williams as an advertising demonstrator for the Gulf Oil Company. The aircraft had a Wright R-1820 engine and was fully acrobatic. The 'Gulfhawk' is currently preserved in the National Air and Space Museum in Washington.

Recently, the Texas Airplane Factory rebuilt four Grumman F3F-2 aircraft. The project was started with parts from four actual aircraft that were recovered from the Pacific Ocean near Hawaii. By fitting at least one original part from an F3F, these aircraft are considered 'rebuilt authentic' and carry the Grumman identification plate appropriate to the aircraft from which they acquired parts. The only difference is these aircraft are equipped with R-1820-50s instead of the original R-1820-22s. Three of the four F3Fs that were built are owned by Tom Frikins and are in his collection which is based at Palomar, California. These aircraft were recently flown together for a unique photo opportunity to highlight their importance. Two of the aircraft are single-seaters and the third is a dual control two-seater trainer. All the aircraft carry markings from VF-7 which operated the type from the USS *Wasp* in 1940.

The Planes of Fame Museum, Chino, California — well known for its interest in collecting and showing vintage aircraft — highlighted the Grumman F3F with an open house display and flew the aircraft. During the event, the actual pilots that flew the F3F talked to the crowd about its performance and their personal experiences in the aircraft. The three aircraft were later flown for the crowd of about 500 people. Steve Hinton led the solo passes with John Maloney and Kevin Eldridge flying the single-seaters. A number of solo passes were made over the crowd followed by a few formation passes. After the aircraft landed, the public were allowed to view them. One aircraft is on loan and displayed at Planes of Fame Museum in Chino, the other two are based at the owner's collection at Palomar, California.



(FP Collection)