F6F-3

1/72 Scale Plastic Model Kit





There are few aircraft types of WW2 that can be described with such one-sided outcomes in terms of kill-to-loss ratio as the Hellcat. The performance step compared to its predecessor was enormous.

Representing another step in the "cat" line of the Grumman aircraft, Hellcat was a unique type right from its beginnings. As the war in the Pacific theatre moved on, it was more and more evident the Hellcat's predecessor, Wildcat, which carried the bulk of the strain of the Pacific air war in 1942 on its shoulders, is somehow inferior to the Mitsubishi Zero.

With an eye on experience

In fact, Grumman were working on a successor to F4F Wildcat since 1938 (i. e. just three years after the Wildcat had been developed), so they were not to start from the scratch when designing the XF6F-1. But the original plan to further develop the F4F with more powerful engine was scrapped in order to deliver what Navy and Marine Corps needed. To find their real needs, Grumman team worked closely with experienced F4F pilots and US Navy Bureau of Aeronautics (BuAer). There were many inputs from pilots, like a higher position of the cockpit od sloped forward fuselage for better pilot's view. Finally, the design was completely different compared to the Wildcat, with wing position moved from center of the fuselage to its lower part, although not fully low-wing design. The wing fold mechanism allowed for both hydraulic or manual folding around diagonal axis pivoting system. Folded stowage position of the outer parts of the wing was parallel to the fuselage with the leading edges pointing down. Instead of the Wildcat's fuselage-mounted narrow-track main undercarriage operated manually the new fighter got robust wide track wing-mounted hydraulically operated main gear legs, rotating 90° while retracting backwards into the wing.

More power needed

The Wright R-2600 Twin Cyclone 14-cylinder two-row 1,700 hp (1,300 kW) radial engine was originally intended for new carrier-based fighter, but the BuAer directed Grumman to use more powerful 18-cylinder Pratt & Whitney R-2800 Double Wasp 2,000 hp (1,500 kW) engine for second prototype as the engine already proved itself in use with the F4U Corsair.

The change necessitated strengthening the airframe, but the change paid off, as the performance was raised significantly. The first prototype with the Cyclone engine flew for the first time on June 26, 1942, the XF6F-3 powered by the Double Wasp made its maiden flight on July 30, 1942. Two months later the first production F6F-3 powered by R-2800-10 engine made its inaugural flight (October 3, 1942) and the type reached its operational readiness with VF-9 on the deck of USS Essex in February 1943.

The name Hellcat was chosen to continue with the habit of "cat fighters" of Grumman design. The name not only suggested the place to which the enemies would be sent, it was also a play on words. The term in the old west referred to barroom brawlers, and that was what the Navy wanted: A tough fighter with hard fists, that could also absorb some punishment. The Hellcat was some 60 percentiles heavier than the Wildcat and was more heavily armed with six .50 in (12,7 mm) M2 Browning machine guns in the wing with 400 rounds per gun. It had a more powerful engine, carried more fuel and was generally of a more robust design. It was, after all, over twice as heavy as its main adversary, the A6M Zero. The initial version, F6F-3, was followed by the F6F-5, also night fighter variants were developed.

Shooting turkeys

The first combat engagement of the enemy occurred on September 1, 1943, when an H8K Emily was sent down in flames by two Hellcats. The advantage over Japanese fighters was well demonstrated by Hellcat pilots on February 16, 1944, when, in the vicinity of Truk, they sent down over 100 Japanese fighters and destroyed more than 150 of them on the ground for the loss of only four own aircraft. Five days later, in the Marianas, a further 160 enemy aircraft were destroyed in the air and on the ground.

Often one-sided nature of combats was even more evident in the battle for the Philippine Sea that culminated on June 19, 1944, in the legendary "Great Marianas Turkey Shoot". There Hellcat pilots claimed some 350 enemy aircraft destroyed in total. A further "turkey hunt" took place between October 12 and 14, 1944 over Formosa, now with some 300 enemy aircraft destroyed for the loss of 27 Hellcats.

Other major combat was seen over the Japanese islands during the first half of 1945. Although the Hellcats were progressively replaced by their stablemate F4U Corsair, they served in the combat role until the end of the war. Under the designation F. Mk.I and Mk.II, several hundred Hellcats served with the Royal Navy, notably in the Atlantic and also in the Far East.

According to statistics, there were 12,275 Hellcats of all versions produced and for the loss of 270 of them, the Hellcat pilots claimed 5,156 kills. That accounts for over half of USN and USMC victories during the war!

The kit: F6F-3

The initial version of the Hellcat had a standard armament of six .50 in (12,7 mm) machine guns. Later production aircraft had single bomb rack installed under each side of the wing, inboard of the undercarriage bays. Together with the fuselage hard point, late production F6F-3s could carry a bomb load over 2,000 lb (910 kg). Also, six 5-in (127mm) rockets HVAR could be carried. There was a window in the fuselage right behind the canopy, which was later deleted with the F6F-5. Also, the windshield was different, as the F-6F3 had a rounded plexiglass piece with internally mounted armor glass, while the F-6F-5 had the armor glass integrated in the windshield (which was thus flat). The engine cover had bulged area around the exhausts below the cooling regulation flaps, while the F-6F-5 with more powerful variant of the Double Wasp had the cowling changed in shape and lacked the bulge.











VF-38, Munda Airfield, New Georgia, Solomon Islands, autumn 1943

VF-38, established on June 30, 1943, fought in the Solomon Islands area flying from land bases together with VF-33, VF-34, and VF-40. The unit operated in the area from August 1943 until the end of fighting in March 1944. Hellcats provided the cover for Avengers and Dauntlesses on their raids against the enemy naval bases, combat ships or shipping. Besides having achieved success against the naval and ground targets during this period VF-38 pilots shot down at least 22 Japanese aircraft. Hellcats deployed from the Solomon Islands bases belonged to the first aircraft of this type which saw combat and arrived in Guadalcanal during the period of re-designing the national insignias from roundels to the roundels with bars and red trim. The unit received its Hellcats in San Diego, California on August 1, 1943, and arrived in the combat zone on August 14, 1943. On the aircraft named Miss New Orleans there was apparently an extensive camouflage repair done around the fuselage roundels and there is a trace of masking on the fuselage after they were sprayed. This aircraft probably arrived in the combat area still carrying factory applied roundels to which the bars were added at the unit level. The national insignia red bars, applicable during July and August 1943, was most likely not painted on this aircraft.



BuNo. 40994, Lt. Alexander Vraciu, VF-16, USS Lexington, June 1944

Having finished his first tour of duty with VF-6 Lt. Vraciu declined to return to the USA and on his own request dated February 27th, 1944, was assigned to VF-16 aboard USS Lexington (CV-16). During his service with this unit he was credited with further 10 kills of the Japanese aircraft. His best day was June 19th, 1944, when during the Battle of the Philippine Sea (thanks to the enormous number of victories over the Japanese airplanes also known as The Great Marianas Turkey Shoot) he claimed 6 Japanese D4Y Judy dive bombers shot down in the mere 8 minutes. Vraciu's plane marked 32 is camouflaged is camouflaged with Glossy Sea Blue on the upper surfaces, the sides are sprayed with Intermediate Blue, the lower surfaces are sprayed with white colour. There is a noticeable overpainting of the previous marking, including the stencils, right under the fuselage number. The current pilot's score is visible under the cockpit besides the VF-16 marking.



C Lt. Cdr. D. McCampbell, CO of CAG-15, USS Essex, June 1944

The future top American fighter ace, David McCampbell, was born on January 16, 1910, in Bessemer, Alabama. After graduating from the United States Naval Academy in 1933 next year he was posted to the light cruiser Portland (CA-33). In 1937 he was accepted to the pilot training at NAS Pensacola. He received his "wings" on April 21, 1938 and was posted to VF-4 on the board of USS Ranger (CV-4). This was followed by the service on USS Wasp (CV-7) as an LSO (Landing Signal Officer). After Wasp was sunk, he first taught the future LSOs at NAS Melbourne. On September 1, 1943, he was promoted to command VF-15 and in February 1944 he was given command of CAG-15 (Carrier Air Group) operating from USS Essex (CV-9). At the controls of this aircraft, during June 1944 battles over Saipan, Philippine Sea and Guam, he scored 10.5 kills (5xD4Y, 4½ x A6M, 1xKi-49) out of his total 34 victories. The Minsi was scrapped in September 1944 after the damage sustained by AA fire and after that Campbell flew F6F-5 named The Minsi II and III.



VF-27, USS Princeton, October 1944

The most striking markings applied to the Hellcat were applied to the aircraft of VF-27 on the USS Princeton (CVL-23). The sharkmouth and bloodshot eyes seared themselves into the memory of more than one Japanese pilot. The sharkmouth and eyes were applied to all the Hellcats serving with VF-27 by one of its pilots, Robert Burnell, and with them, wreaked havoc everywhere they operated in the Pacific. Over this span, they accounted for some two hundred downed enemy aircraft. The end of combat for VF-27 came about on October 24th, 1944, when the Princeton suffered a Japanese bomb hit. A major fire ensued, and the Princeton was finally sunk using torpedoes launched from friendly ships. Only a few aircraft that were in the air at the time landed on the USS Essex. One of them was this Hellcat, with the uncommon 'F11' marking and with two kill marks in the form of small Japanese flags below the cockpit.



F6F-3

STENCILING POSITIONS



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1/72 SS 754 F6F-3 Weekend

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