F4F-3 Wildcat

eduard

1/48 Scale Plastic Model Kit



ProfiPACK edition

At the outbreak of the War in the Pacific, the Wildcat was the main fighter aircraft on the carrier decks of US Navy ships. While the Japanese Zero was faster and more maneuverable, Wildcat pilots still achieved reasonable success in combat with them.

In the early 1930's Grumman company became a major supplier of fighter aircraft to the US Navy with the FF biplane and its successors, the F2F and F3F. By 1935, however, the biplanes were reaching their limits and with the XF4F-1 prototype (factory designation G-19) Grumman failed against the cantilever monoplane Brewster F2A-1 Buffalo in the US Navy's competition for a new fighter. The XF4F-1 prototype was retained as a backup, but at Grumman they realized biplanes had become obsolete, so they redesigned it as an all-metal mid-wing monoplane, designated the XF4F-2 (G-18).

The fuselage was adopted with only minor changes, the wing employed the newly-developed NACA 230-series airfoil. It was powered by a 1,000 hp (750 kW) Pratt & Whitney R-1830-66 Twin Wasp engine with a single-stage single-speed supercharger. The 110 gal (415 l) fuel tank was located beneath the cockpit with a 20 gal (75 l) reserve tank behind the pilot's seat. Armament consisted of two .30 (7.62 mm) machine guns in the fuselage and two .50 (12.7 mm) machine guns in the wing. There were also provisions for two 100lb (45kg) bombs under the wing. A structurally complex undercarriage was adopted from previous designs, which the pilot retracted manually into the fuselage using a crank.

The first flight of the XF4F-2 was made on September 2, 1937, and in April 1938 comparative trials were conducted with the XF2A-1 Buffalo and also with the Seversky XFN-1. Although the Wildcat prototype was the fastest, reaching 290 mph (466 km/h) compared to 280 mph (450 km/h) for the Buffalo and 250 mph (402 km/h) for the XFN-1, it still did not meet the Navy's requirement of 300 mph (482 km/h). And because it lagged behind the Buffalo in some aspects, it was eventually not ordered, while Brewster received an order to deliver 54 units of the production version of the F2A-1 Buffalo. This was because the Buffalo handled better, was powered by less complicated Cyclone engine and had the advantage of a hydraulically operated landing gear. Grumman did not give up, however, and began work on an improved version of the XF4F-3 (G-36).

On the third try

The fuselage was lengthened to 28 ft (8.53 m) but otherwise was almost unchanged. The wingspan was also increased from 34 ft (10.36 m) to 38 ft (11.58 m) with squared-off tips. A P&W XR-1830-76 engine with a two-stage, two-speed supercharger rated at 1,200 hp (890 kW) was selected. The prototype made its maiden flight on February 12, 1939, and reached a speed of 333,5 mph (537 km/h). As deliveries of the Buffaloes were delayed, the Navy decided on August 8, 1939, to order 54 new Grummans, which were named Wildcat. The first of these was delivered in February 1940.

The production F4F-3s had changed armament as the .30 fuselage machine guns were removed and four .50 guns were installed in the wing instead. The F4F-3 wing did not yet have a folding mechanism, this was not introduced until the F4F-4 version and was an interesting innovation pioneered by Leroy Grumman who designed the Sto-Wing system with a central pivot. Instead of the normal lift, the outer wing sections were folded flat alongside the fuselage. The F4F-4's armament was also reinforced up to six .50 machine guns in the wing.

In British service

Even before the US Navy ordered the new aircraft, France rushed in, ordering 81 aircraft with the export designation G-36A. These were powered by the Wright R-1820-G205A-2 Cyclone engine with a single-stage, two-speed supercharger, developing up to 1,000 (850 kW). Armament was to consist of

six 7.5 mm Darne machine guns. However, these aircraft never made it to the customer. After the fall of France, they were rebuilt to British specification (the armament changed to four .50 machine guns) and were sent to the Fleet Air Arm. Here they served under the name Martlet (changed to Wildcat by FAA in January 1944) and were intended to be just a stopgap solution before the arrival of the two-seat Fairey Fulmars. Eventually, however, they served with the FAA until the end of the war. Their last aerial victory came in March 1945, when they shot down four Bf 109s over Norway. In all, 1,200 Wildcats of various versions were delivered to the FAA.

Pacific Lumberjack

The Wildcat was the main fighter of the US Navy and of USMC at the time of the attack on Pearl Harbor and as such it had to face a new and dangerous adversary, the Japanese Zero. Although the Wildcat lagged it in terms of performance and maneuverability, its rugged design, quite a strong armor protection and self-sealing fuel tanks made it much more capable of taking damage in combat. In addition, the American pilots were also helped by the defensive tactics developed before the outbreak of the war by Lt. Cmdr. John S. "Jimmy" Thach which was named the Thach Weave after him. It was based on crossing the flight paths of cooperating aircraft, in which the attacked pilot "brought" the enemy behind right in front of the barrels of wingman's machine guns. During the fighting for Guadalcanal, Wildcat pilots then used the "hit and run" high altitude ambush tactics with success.

Among the significant battles fought by Wildcat pilots was the defense of Wake Island, in which just four remaining USMC aircraft of VMF-211 fought against overwhelming Japanese odds in December 1941. During February 1942 Wildcats from Task Force 8 and 17, built around the USS Enterprise and USS Yorktown, attacked Japanese forces on the Marshall and Gilbert Islands with a success. Still flying F4F-3s, pilots were defending their ships during the Battle of the Coral Sea, while the Battle of Midway was a baptism of fire for F4F-4s, as they reached the decks just prior to the fighting.

It was not until 1943 new American fighter aircraft appeared and significantly outclassed the Japanese Zero. Grumman replaced the Wildcats with F6F-3 Hellcat, Vought added the F4U-1 Corsair to the naval air forces. Thus, by early 1943, Grumman stopped the production of the Wildcat, but General Motors carried on under the designation GM-1 (identical to the F4F-4 version, but with four machine guns) and GM-2 with a more powerful engine, which was a version optimized for service on escort carriers. On these vessels, the Wildcats also engaged in attacks on land and naval targets until the end of the war. Finally, a total of 7,860 Wildcats and Martlets of all marks were produced.

This kit: F4F-3 Wildcat

The F4F-3 had standard armament of four .50 (12.7 mm) machine guns in a wing. The wing did not have folding mechanism and the poor design of the installation of the machine guns was responsible for their frequent jamming. The shortage of two-stage superchargers led to the F4F-3A version, with the P&W R-1830-90 engine with a single-stage two-speed supercharger. These aircraft were used in conjunction with the standard F4F-3 but were not popular with pilots due to their inferior performance (top speed was only 502 km/h). In June 1942, 17 of F4F-3s and one F4F-3A were converted to the photo reconnaissance F4F-3P with a Fairchild F-56 camera mounted behind the pilot's seat in place of the reserve fuel tank, one example was fitted with floats and designated the F4F-3S in February 1943.

Carefully read instruction sheet before assembling. When you use glue or paint, do not use near open flame and use in well ventilated room. Keep out of reach of small children. Children must not be allowed to suck any part, or pull vinyl bag over the head.



Před započetím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobre větrané místnosti. Lepidla ani barvy nepoužívejte v blízkosti otevřeného ohně. Model není určen malým dětem, mohlo by dojit k požití drobných dílů.

INSTRUCTION SIGNS * INSTR. SYMBOLY * INSTRUKTION SINNBILDEN * SYMBOLES * 記号の説明



BEND OHNOUT SAND

BROUSIT

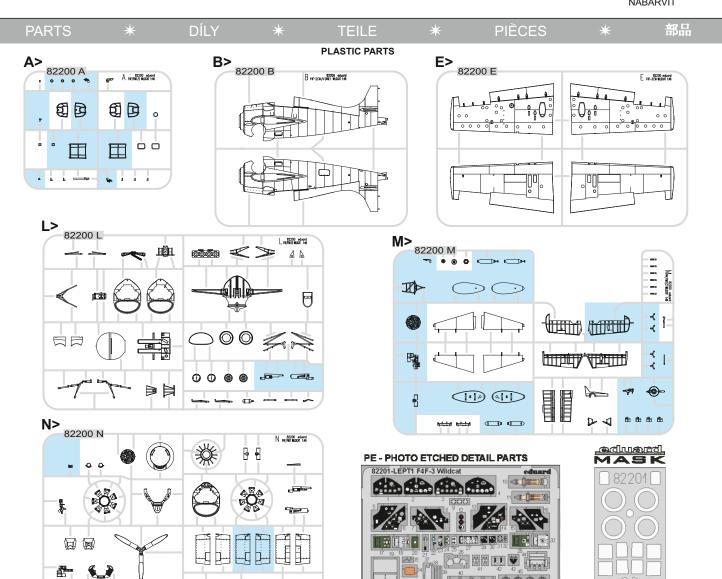
SPENILION.

OPEN HOLE VYVRTAT OTVOR (\Rightarrow)

SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ

REMOVE ODŘÍZNOUT REVERSE SIDE OTOČIT

APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT



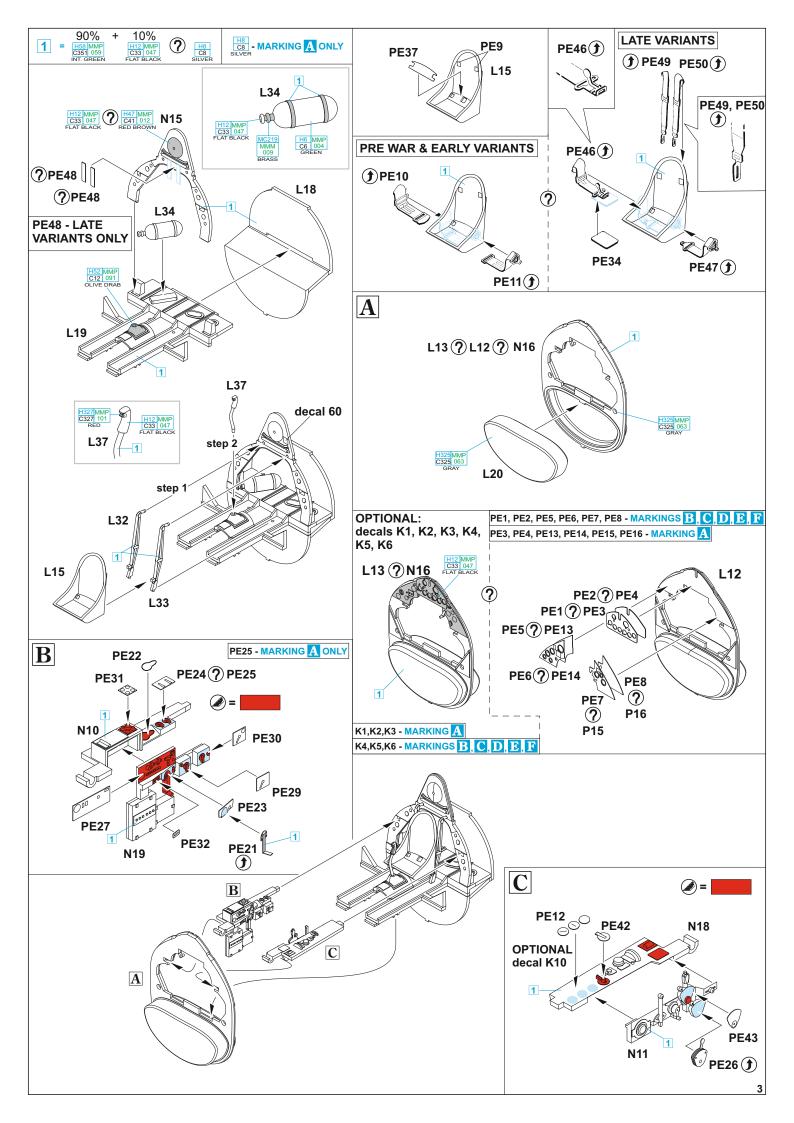
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto dily nepoužívejte při stavbě. - 使用しない部品

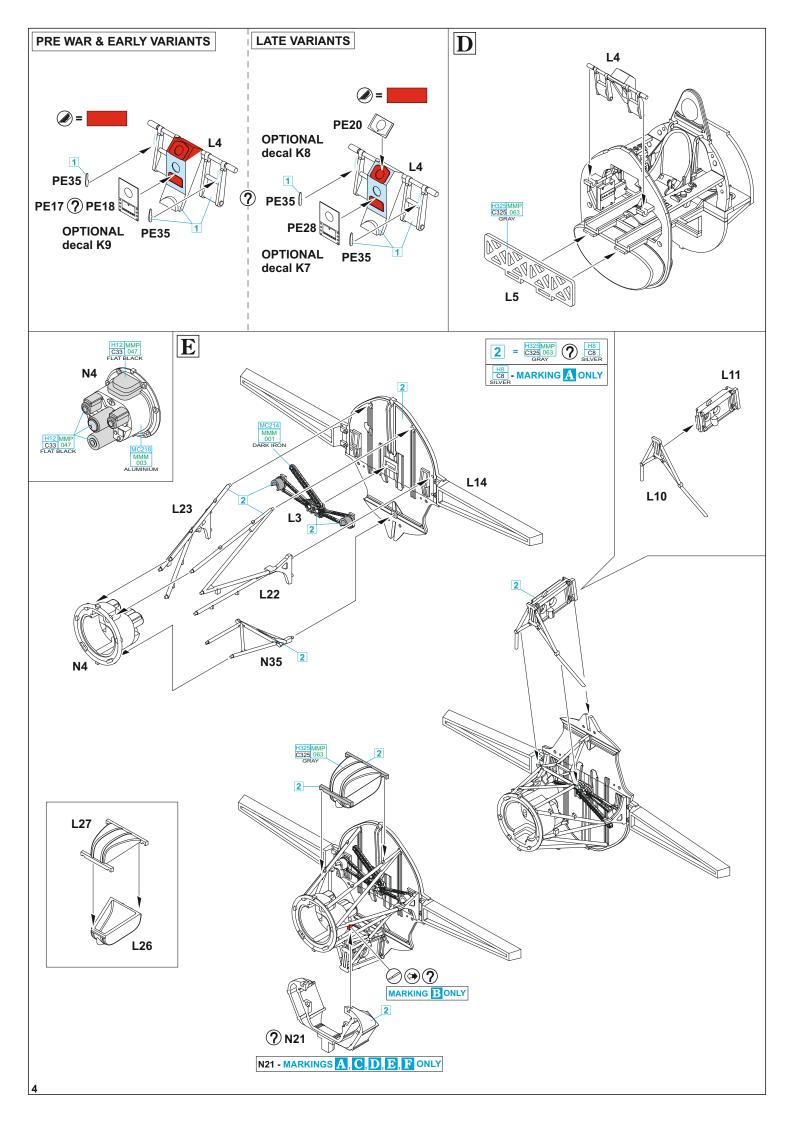
COLOURS * BARVY * FARBEN * PEINTURE * 色 GSi Creos (GUNZE) MISSION MODELS GSi Creos (GUNZE) MISSION MODELS

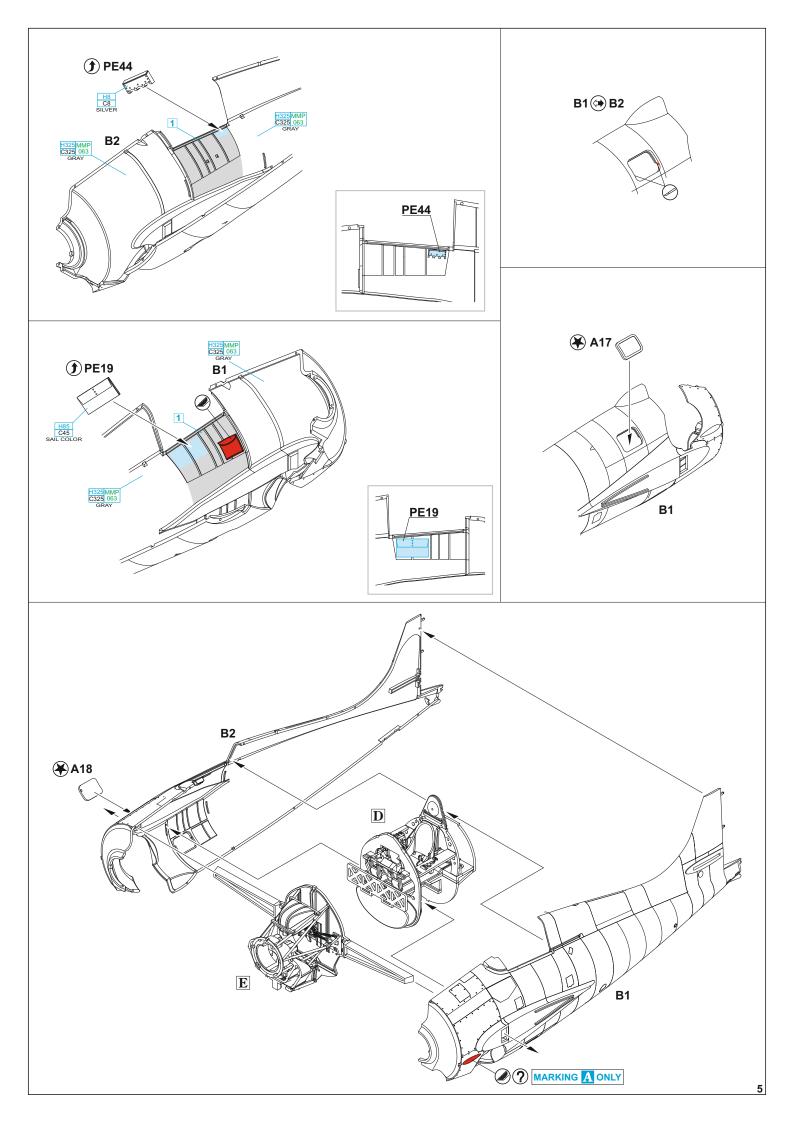
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H1	C1	MMP-001	WHITE
H2	C2	MMP-047	BLACK
H6	C6	MMP-004	GREEN
H8	C8		SILVER
H12	C33	MMP-047	FLAT BLACK
H26	C66	MMP-012	BRIGHT GREEN
H47	C41	MMP-012	RED BROWN
H52	C12	MMP-091	OLIVE DRAB
H58	C351	MMP-059	INTERIOR GREEN
H77	C137	MMP-040	TIRE BLACK
H85	C45	MMP-040	SAIL COLOR
H90	C47		CLEAR RED
H93	C50		CLEAR BLUE

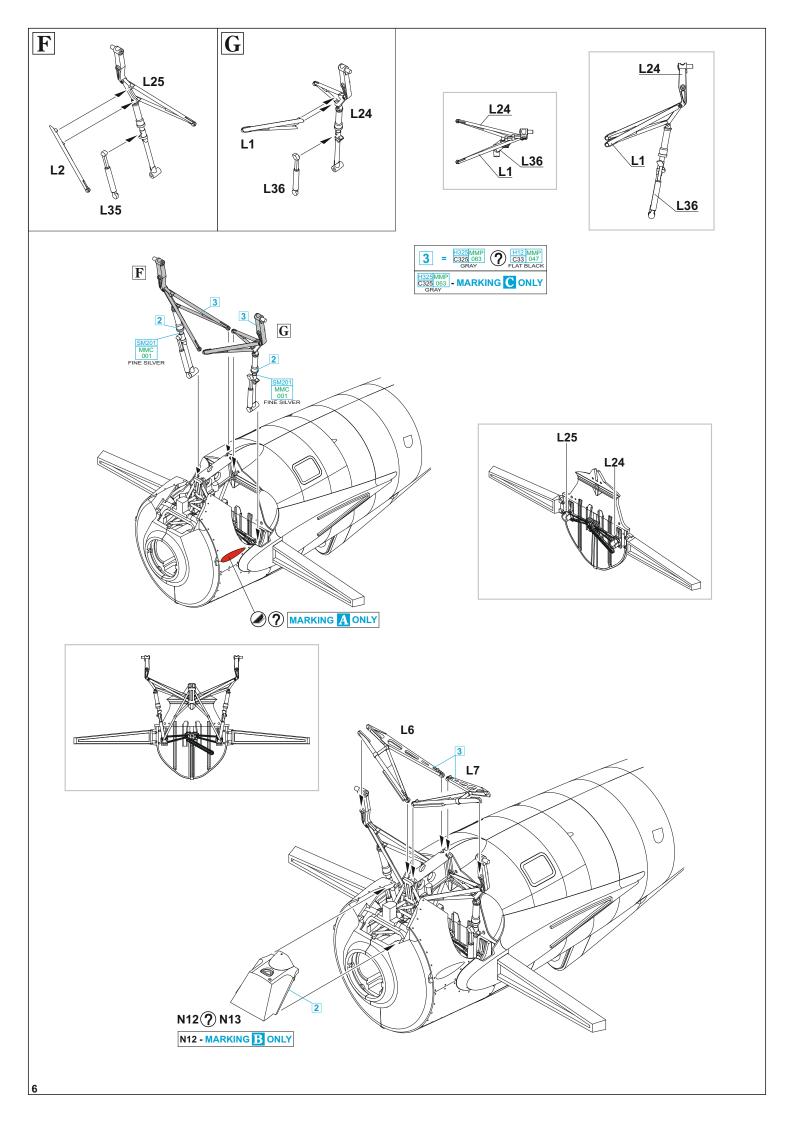
))<l

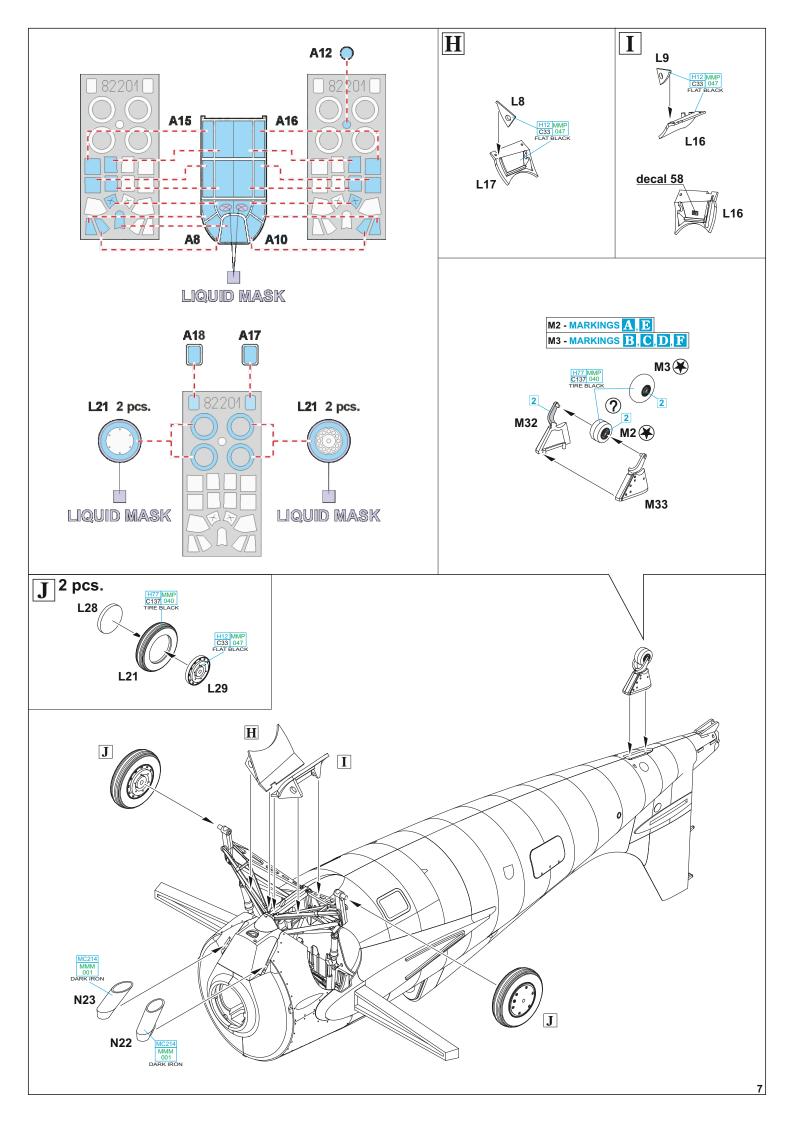
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H94	C138		CLEAR GREEN
H306	C306	MMP-118	MEDIUM GRAY
H316	C316	MMP-104	WHITE
H325	C325	MMP-063	GRAY
H327	C327	MMP-101	RED
H329	C329	MMP-041	YELLOW
	C367	MMP-061	BLUE GRAY
Mr.METAL COLOR		METALLICS	
MC214		MMM-001	DARK IRON
MC218		MMM-003	ALUMINIUM
MC219		MMM-009	BRASS
Mr.COLOR SUPER METALLIC		METALLICS	
SM201		MMC-001	SUPER FINE SILVER

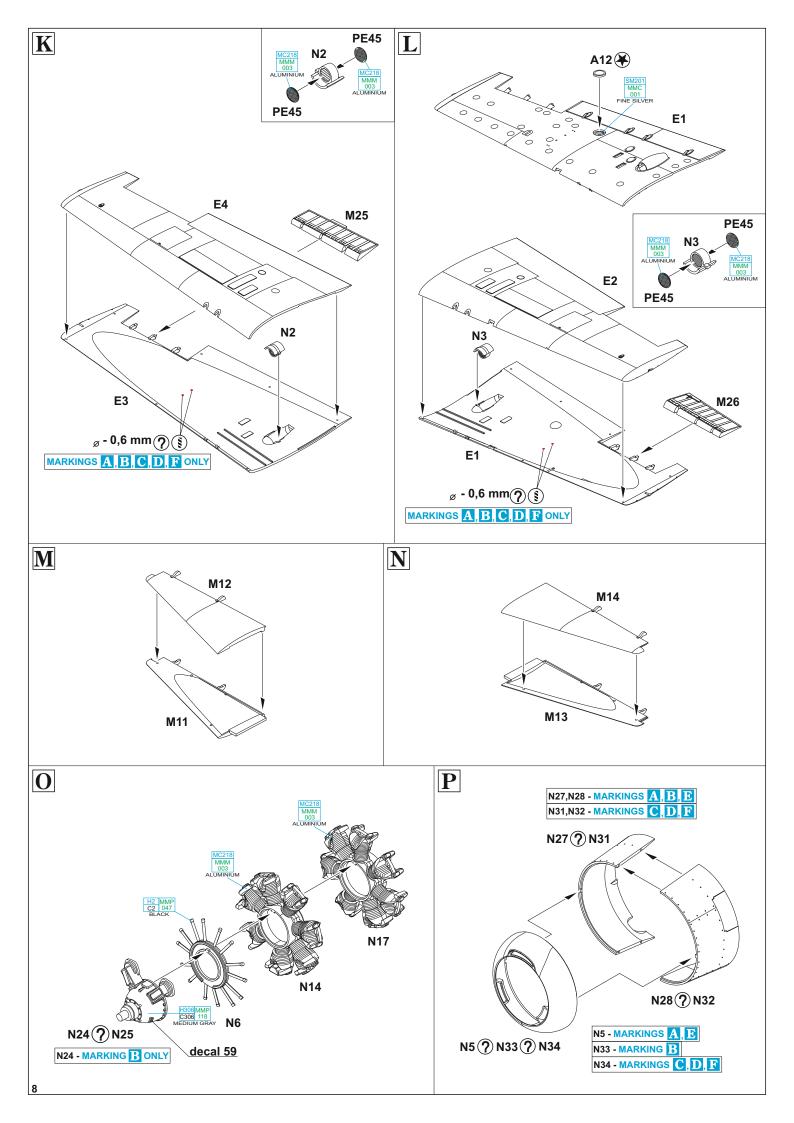


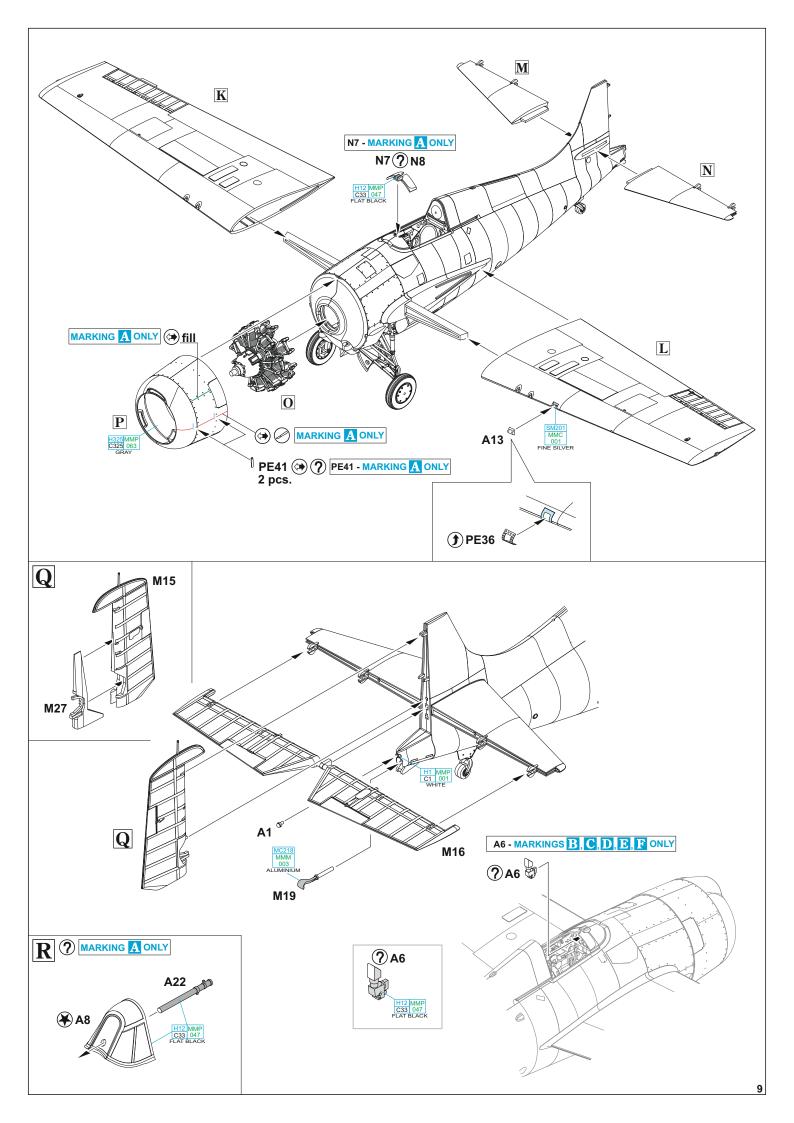


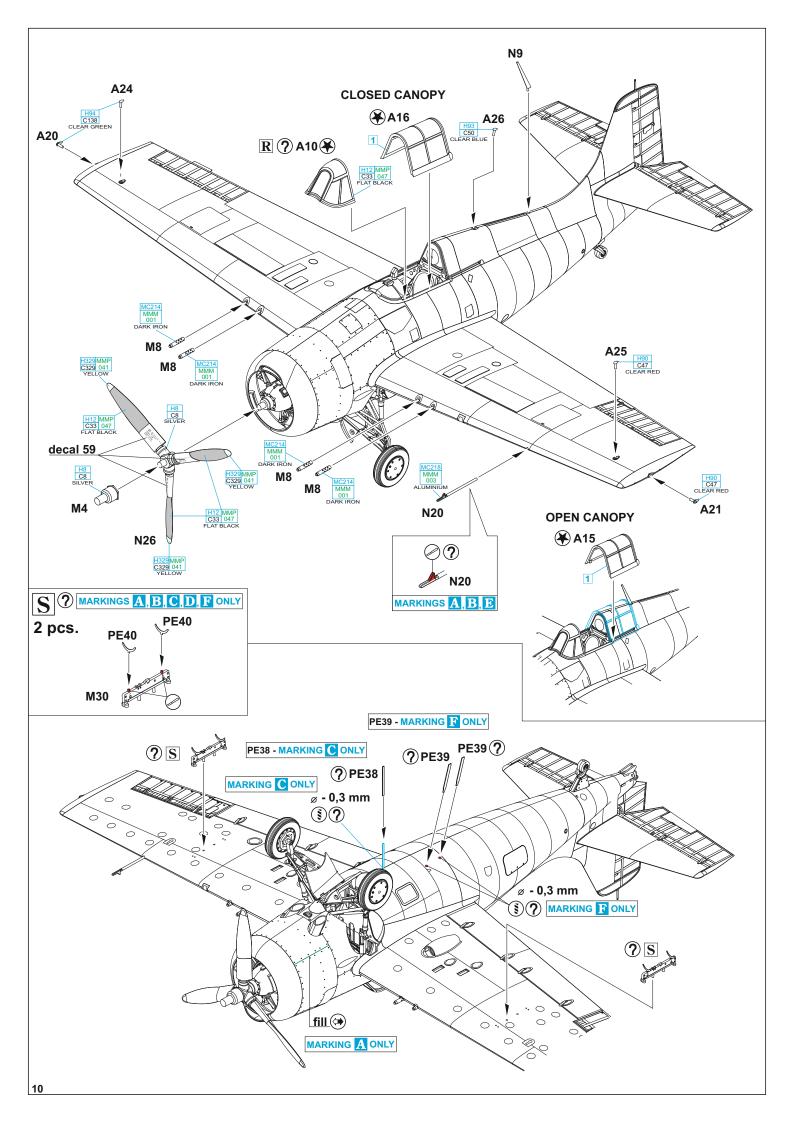






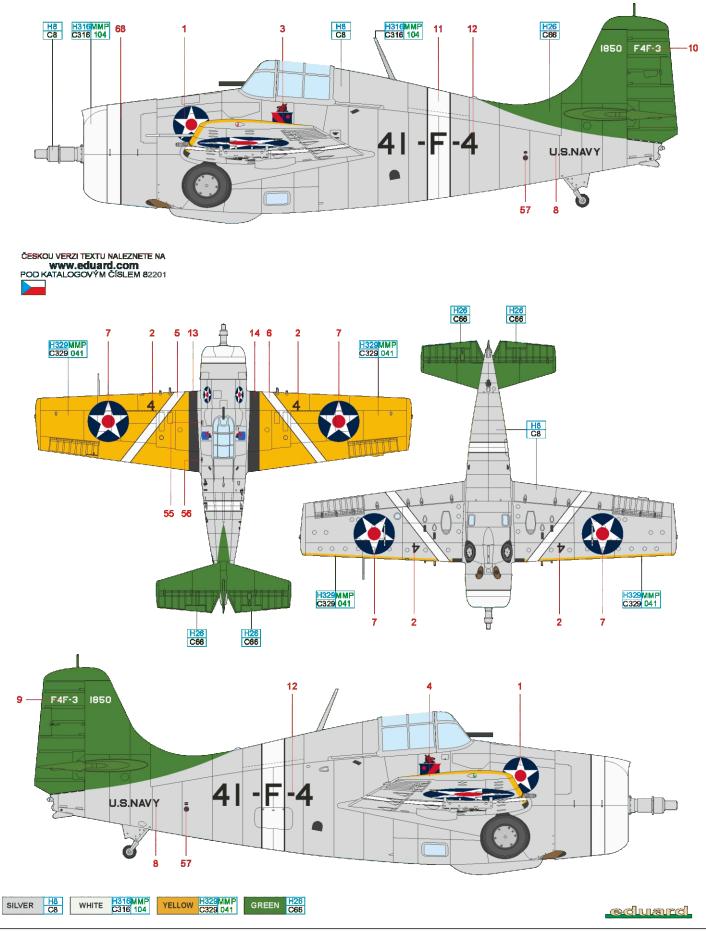






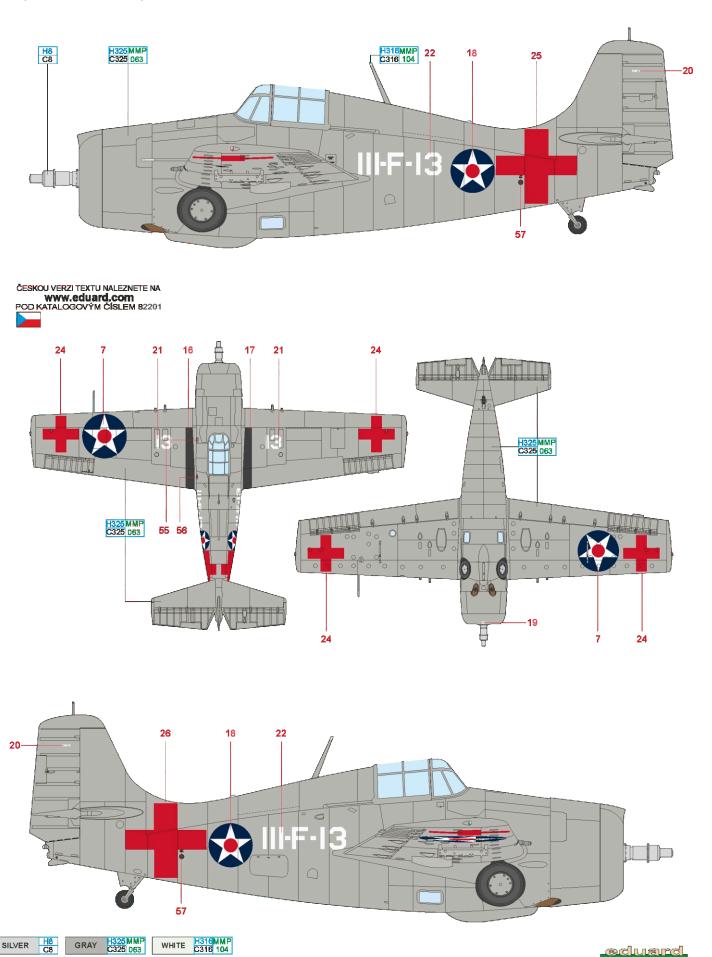
A BuNo. 1850, Lt. Charles Shileds, VF-41, USS Ranger (CV-4), December 1940

The first production block of the Wildcat resulted in 49 aircraft and was delivered in a prewar scheme, meaning that the fuselage and lower wing surfaces were sprayed in aluminum, and the upper wing surfaces were yellow. Wing markings were carried in all four positions, and on the fuselage they were either applied near the front or on the engine cowling. The color of the tail surfaces designated the aircraft's home carrier. In this case, the carrier in question is the USS Ranger (CV-4), which was the first to receive Wildcats, followed by the USS Wasp (CV-7). The bands on the fuselage and wings, including the engine cowl ring, indicated which unit section the aircraft was flown by, and in the case of white, this would have been Section No. 2. Photographs of this aircraft show it prior to being delivered to the unit, and without weapons or its telescopic gunsight. The first nineteen aircraft within this production block had the engine cowl split into upper and lower halves.



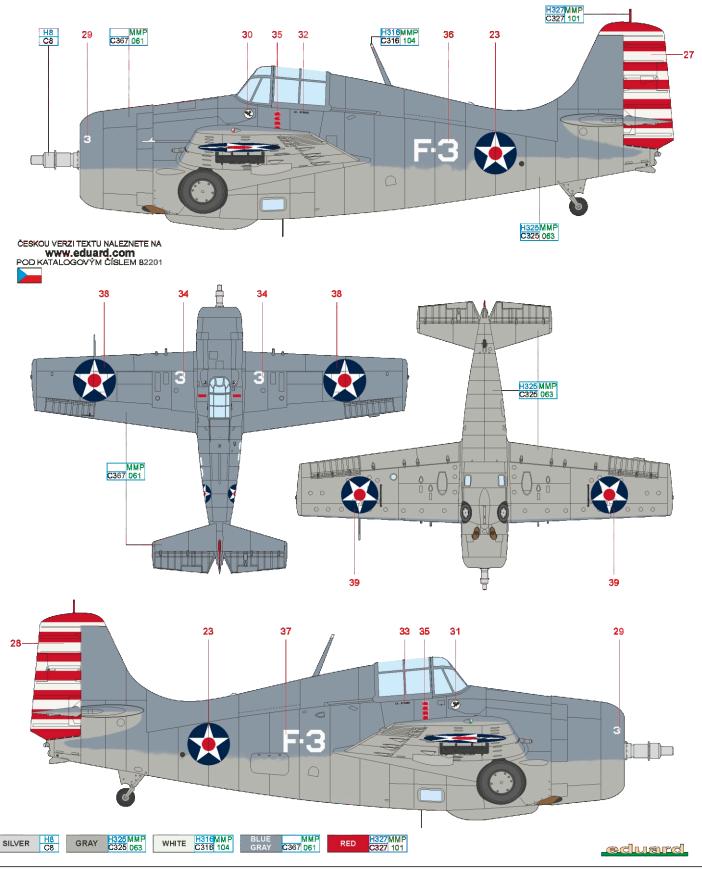
B VMF-111, Army-Navy maneuvers, Louisiana, United States, November 1941

December 30, 1940, saw the implementation of a new camouflage scheme that was to replace the between-the-wars scheme. It required all aircraft flying off ships to be given an overall coat of FS 36440 Light Gray. It was in this scheme that Marine Corps Wildcats from VMF-111 took part in large scale military exercises, and also sported red crosses on both upper and lower surfaces of the wings, as well as on both sides of the fuselage. These crosses were used to designate combat units during these maneuvres.



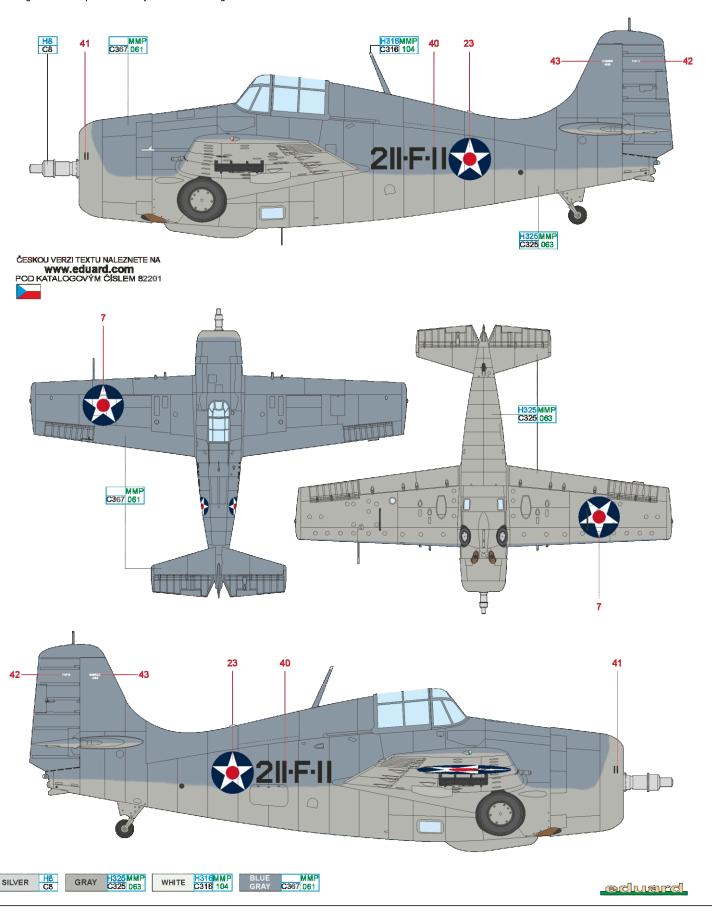
Lt. Edward H. O'Hare, VF-3, USS Lexington (CV-2), Hawaiian Islands, April 1942

Edward Henry O'Hare was born on March 13, 1914 in St. Louis, Missouri, and after concluding his stint at the US Naval Academy in 1937, he was assigned to the battleship USS New Mexico (BB-40) as an Ensign. He initiated his pilot training in June 1939, which he successfully concluded in May 1940. This was followed by assignment to VF-3, operating off of the USS Saratoga (CV-3). In February 1942, the US Navy wanted to attack the base at Rabaul on the island of New Britain. The carrier Lexington led Task Force 11, and VF-3 flew off of her. The ship was discovered on her approach to the target, and the Japanese sent two Betty units to intercept. The second of these units was only countered by "Butch" O'Hare and his wingman. O'Hare shot down three of the Bettys and seriously damaged another two, leading to the disruption of the attack force. The discovery of the attacking fleet caused the abandonment of the target being Rabaul, and other targets were attacked... The Wildcat flown by O'Hare became a major point of interest on his return to the Hawaiian islands, and many photographs were taken of it. The plane's lower surfaces were painted FS 36440 Light Gray, and upper and side surfaces were in FS 35189 Blue Gray. The national markings on the fuselage and in four positions on the wings were complemented by thirteen red and white stripes on the rudder. Edward O'Hare did not see the end of the war, having likely been shot down flying a Hellcat during night combat on November 26, 1943. His body was never found in the water, despite some witnesses claiming to have spotted a parachute. O'Hare settled in Chicago before the war, and in 1949 the city named its airport after him.



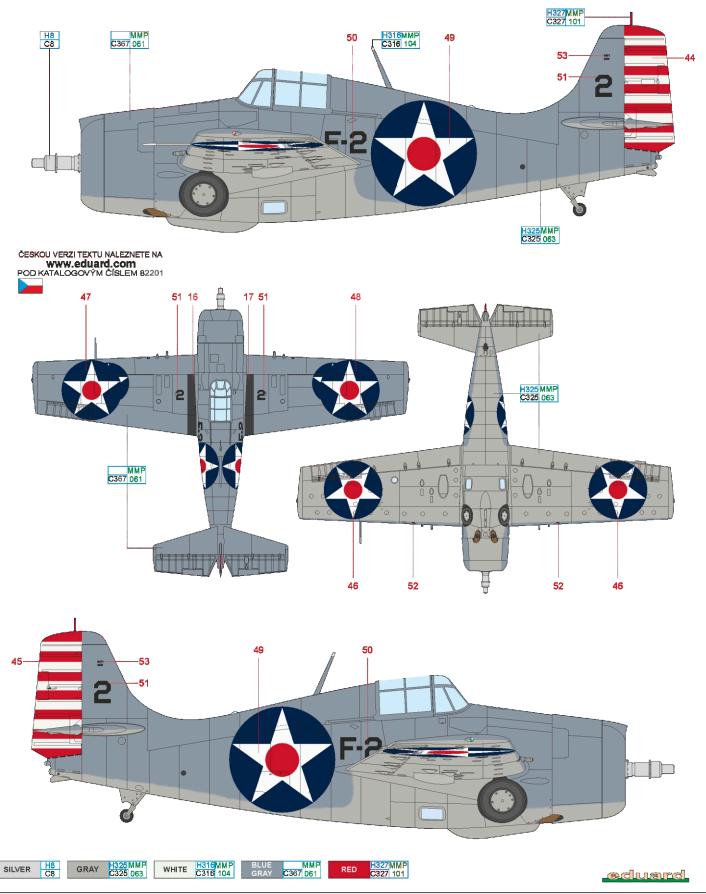
BuNo. 4019, Capt. Henry T. Elrod, VMF-211, Wake Island, December 1941

The first Japanese attempt to occupy Wake Island was made December 11, 1941. After the first initial bombardments, VMF-211 possessed only four airworthy Wildcats. One of the pilots that played a role in deflecting the attack was Captain Henry Talmadge Elrod that earlier had shot down a pair of G3M Nells, and during a raid on the invading Japanese flotilla he hit the destroyer Kisaragi with a 45kg bomb, causing the ship to explode shortly thereafter. According to some sources, he hit a depth charge storage area, the detonation of which sent the destroyer to the bottom with all 157 men aboard. Incoming aircraft and fire from 5-inch coastal batteries persuaded the Japanese to withdraw. A second attempt was made by the Japanese on December 23, 1941, at a time when there wasn't a single airworthy Wildcat on the island. For that reason, Capt. Elrod took part in the ground fighting, and led a Marine unit until he fell, for which he was posthumously awarded the Medal of Honor. Wildcat coded 211-F-11, on which he had gained his victories, was painted FS 36440 Light Gray underneath and FS 35189 on the upper and side surfaces. The national markings were in only the two positions on the wings, and the fuselage markings were complemented by a small marking at the rear.



BuNo. 2531, Lt. Elbert S. McCuskey, VF-42, USS Yorktown (CV-5), May 1942

Elbert Scott McCuskey was born February 8, 1915 in Little Rock, Arkansas, and after attending universities in Alabama and Arkansas, he signed up for naval aviation training on May 28, 1938. After successfully undergoing pilot training, he was assigned to VS-41 on the USS Ranger as an Ensign in October 1939. In July 1941, he was reassigned to VF-42 on the USS Yorktown, on which he would serve until July 1942. Then, until June 1943, he trained young Naval Aviators in the art of flying, floowing this up with a return to operational flying as a unit commander, first with VF-6, and then, from March 1944, with VF-8. Both of these units were flying the Hellcat by then. During his combat career in the Second World War, he gained 13.5 kills. He remained loyal to the Navy after the war, not retiring until July 1965. He died of a heart attack on June 15, 1997. With this Wildcat, he shot down a Zero in the Battle of the Coral Sea. The aircraft was camouflaged in the same way as the Wildcat flown by Lt. Edward O'Hare, and even the markings were similar, with one difference being the application of large American markings on the fuselage and wings. An interesting facet to this aircraft was the original markings on the wings being visible under the new ones.



BuNo. 4006 (4008), Capt. John F. Carey, VMF-221, Midway Island, June 1942

During the pivotal Battle of Midway, which swung the fortunes of the war in the Pacific to the Americans from the Japanese, aircraft did not fly exclusively from aircraft carriers. Some flew off of Midway Island itself. One of the units to do so was VMF-221, which did so with their Wildcats and Buffalos. Wildcat coded 22 was flown by John Francis Carey, who managed to shoot down a B5N Kate while intercepting the incoming Japanese force. His Wildcat was, however, damaged by an escorting Zero. Carey himself was wounded in the foot, but managed to put down at Midway safely. He returned to duty and survived the war, and remained faithful to the USMC after war's end. He took part in the wars in Korea and Vietnam, and finally went into a well deserved retirement on June 30th, 1965 with the rank of Colonel. He passed away on December 12, 2004. The Wildcat with which Capt. Carey achieved the aforementioned kill, was camouflaged with Blue Gray and Light Gray, and the national markings, in accordance with an order dated May 15, 1942, had their red components removed. Similarly, the red and white stripes on the ruder were overpainted with the appropriate camouflage colour.

