# F6F-3 Hellcat

# eduard

#### 1/48 Scale Plastic Model Kit



# ProfiPACK edition

# There are only few aircraft that can be described with such one-sided outcome in terms of kill-to-loss ratio as Hellcat. The performance step 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. The Zero had better maneuverability and also the top speed was higher, as well as endurance. On the other side, the Wildcat was better in dives and more stable in high-speed turns. Anyway, the aircraft bettering the A6M overall was needed.

#### 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, Leroy Grumman and his chief designers Jake Swirbul and Bill Schwendler worked closely with experienced F4F pilots and US Navy Bureau of Aeronautics (BuAer) to develop new fighter. 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 vertical center of the fuselage to its lower part, although not fully low-wing design. The wing folding 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 radial 1,700 hp (1,300 kW) 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 thus some 60 percent heavier than 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. But it was a fighter first and foremost in every sense of the word, designed around the requirements of the pilots to fulfill the combat missions for which it was designed. The initial version, F6F-3, was supplanted by the F6F-5, also night fighter variants were developed.

#### Shooting turkeys

The first combat engagement 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 aircraft. Five days later further 160 enemy aircraft were destroyed on and over Mariana Islands.

Often one-sided nature of combats was emphasized in the battle for the Philippine Sea that culminated on June 19, 1944, in the legendary "Great Marianas Turkey Shoot". Hellcat pilots claimed some 350 enemy aircraft destroyed there. 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 Hellcat was progressively replaced by its stablemate F4U Corsair, it served in the combat role until the end of the war. Under the designation 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!

#### This kit: F6F-3 Hellcat

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 more than 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 F6F-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 F6F-5 with more powerful variant of the Double Wasp had the cowling changed in shape and lacked the bulge.



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 dojít k požití drobných dílů.

#### INSTRUCTION SIGNS \* INSTR. SYMBOLY \* INSTRUKTION SINNBILDEN \* SYMBOLES \*



**VOLBA** 



OHNOUT



**BROUSIT** 



VYVRTAT OTVOR



SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ



REMOVE ODŘÍZNOUT



REVERSE SIDE OTOČIT

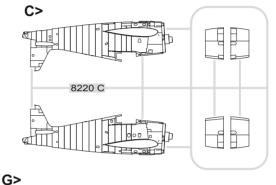


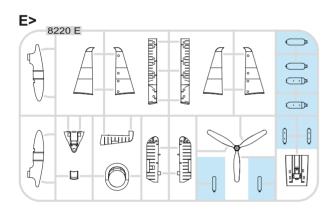
APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT

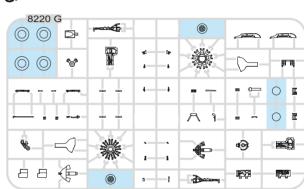


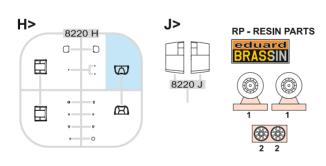
#### PLASTIC PARTS

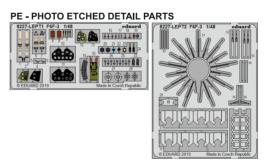


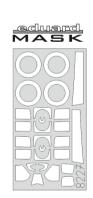










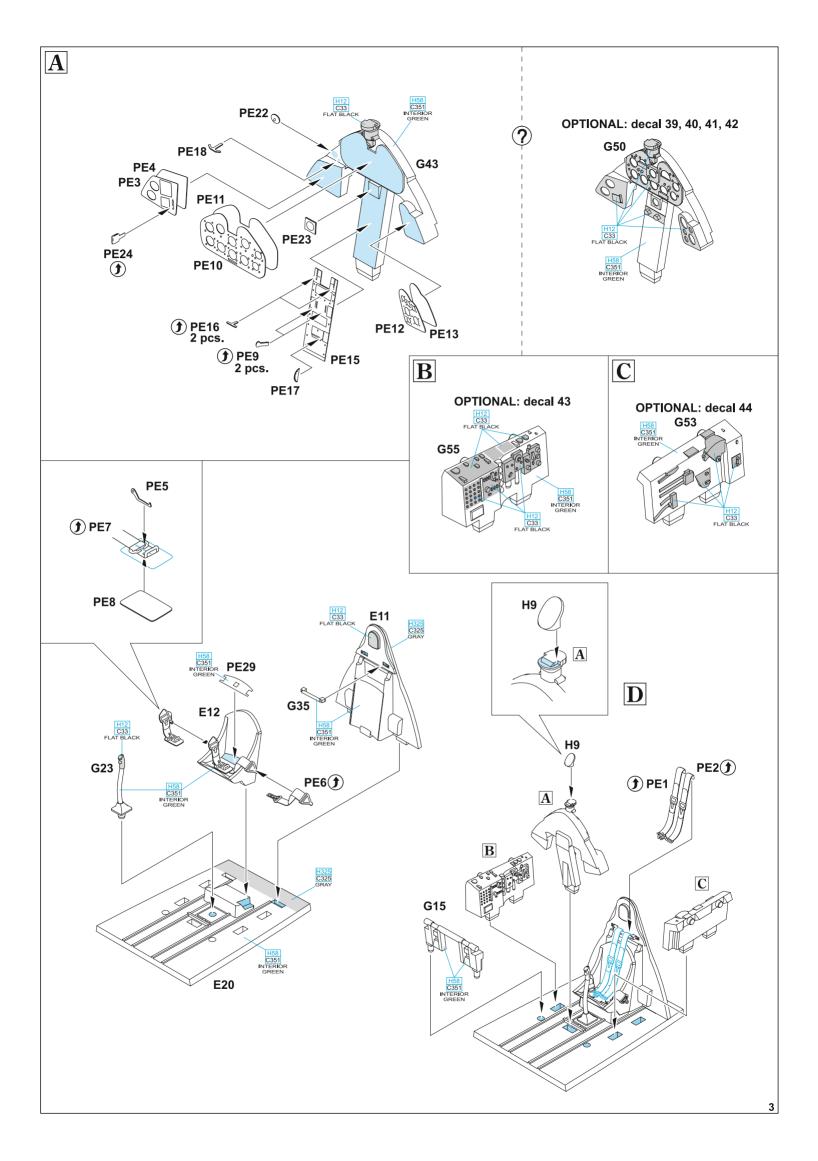


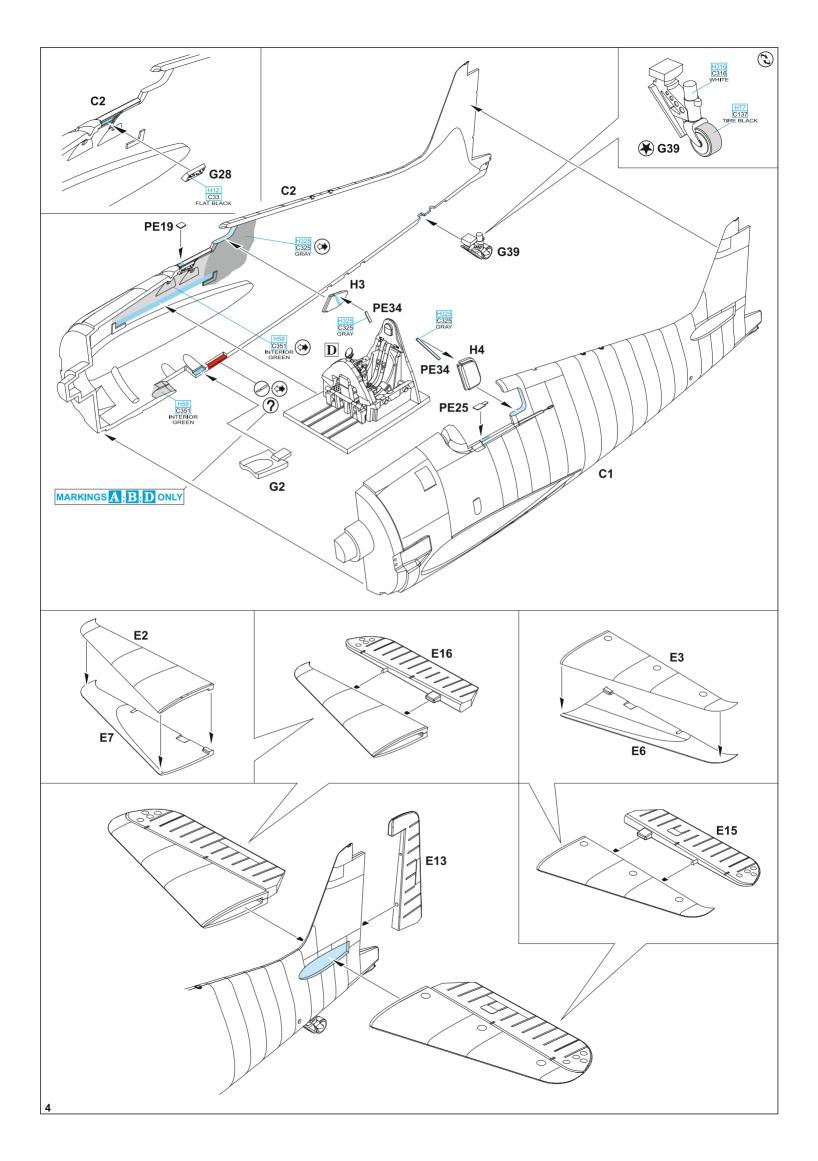
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部品

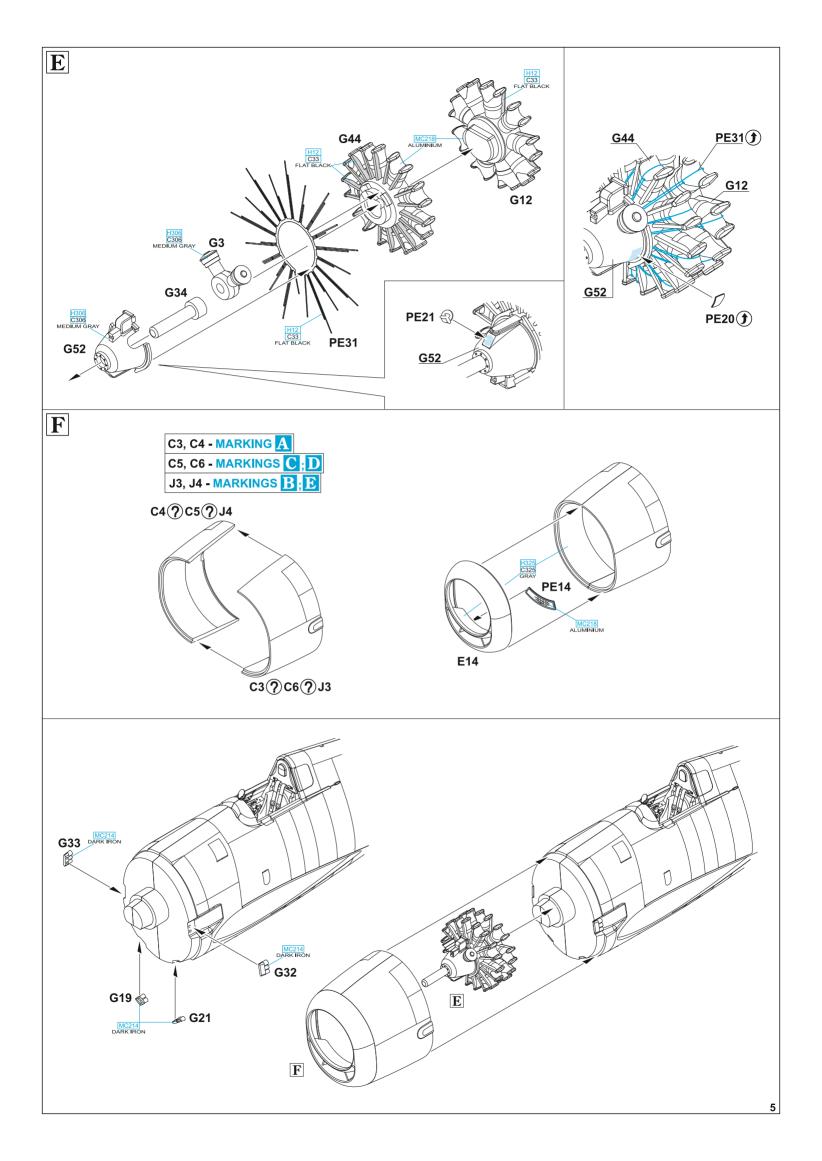
PEINTURE **COLOURS** BARVY **FARBEN** 

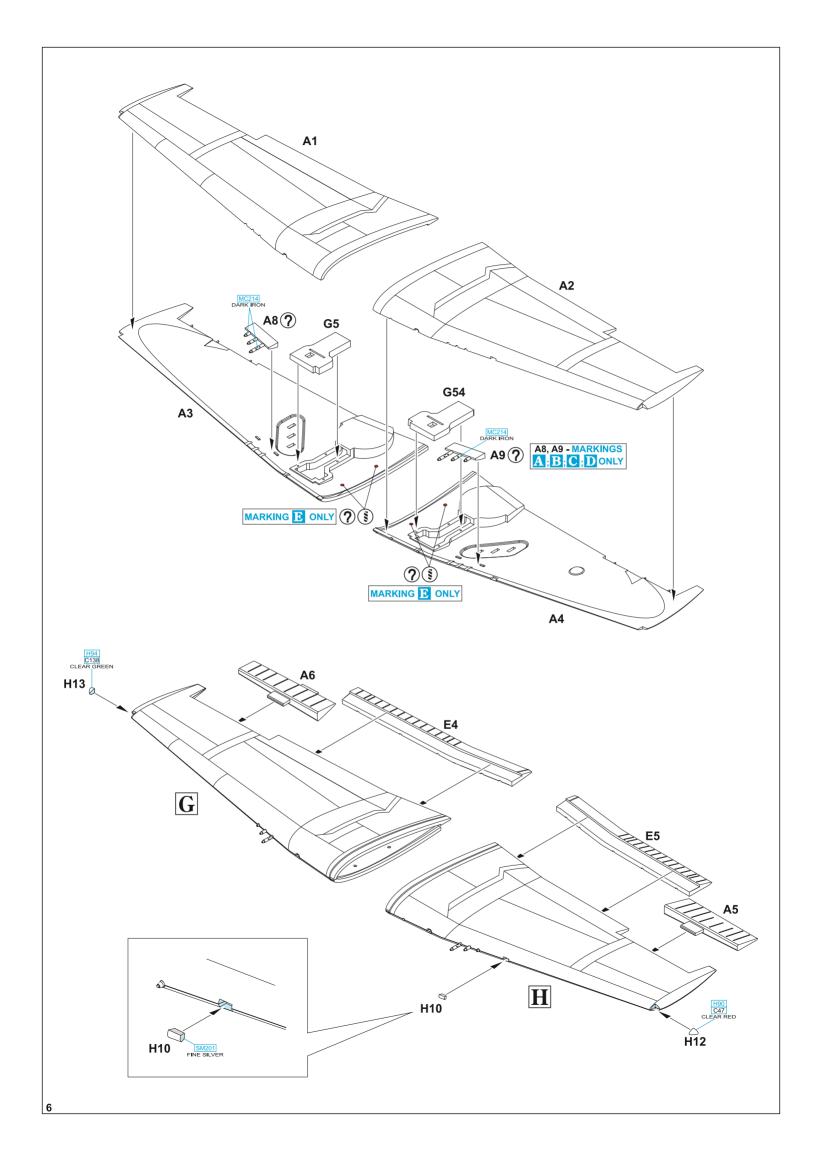
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H12	C33	FLAT BLACK
H54	C365	NAVY BLUE
H56	C366	INTERMEDIATE BLUE
H58	C351	INTERIOR GREEN
H77	C137	TIRE BLACK
H90	C47	CLEAR RED
H91	C48	CLEAR YELLOW
H93	C50	CLEAR BLUE
H94	C138	CLEAR GREEN
H306	C306	MEDIUM GRAY

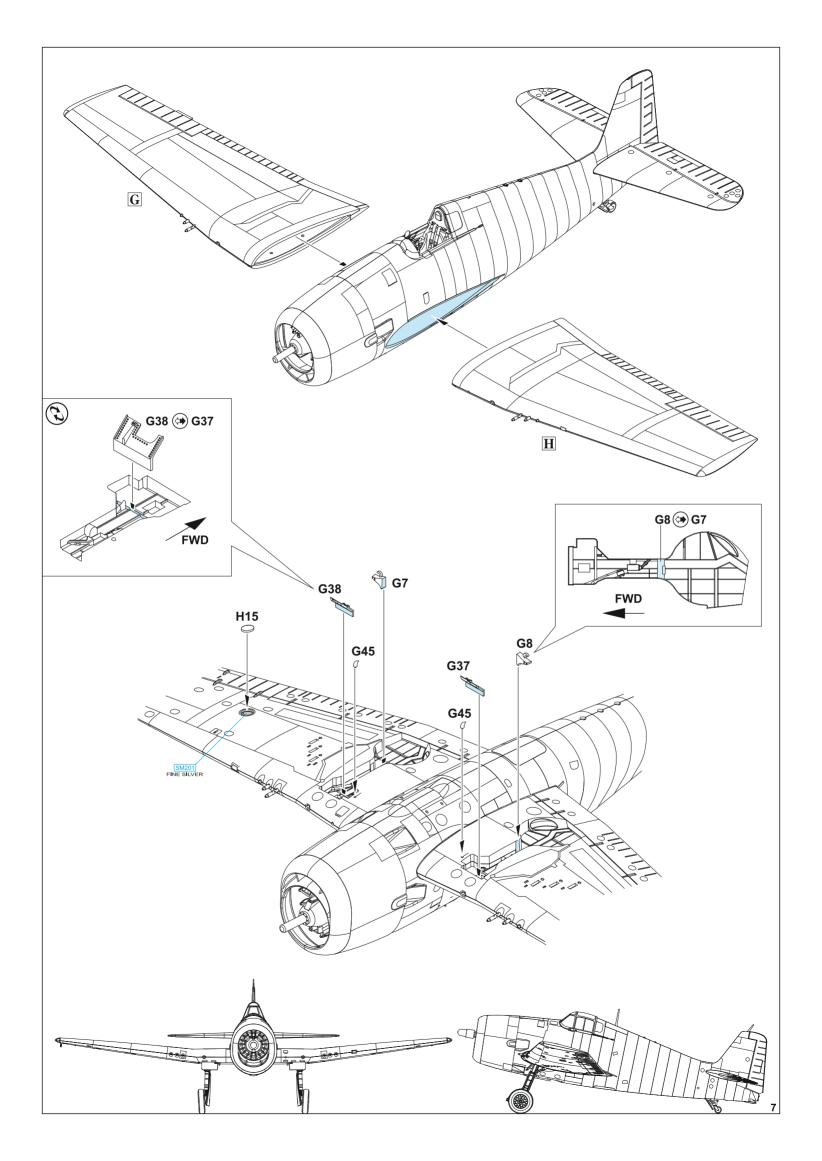
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H316	C316	WHITE
H325	C325	GRAY
H327	C327	RED
H329	C329	YELLOW
Mr.METAL COLOR		
MC214		DARK IRON
MC218		ALUMINIUM
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER

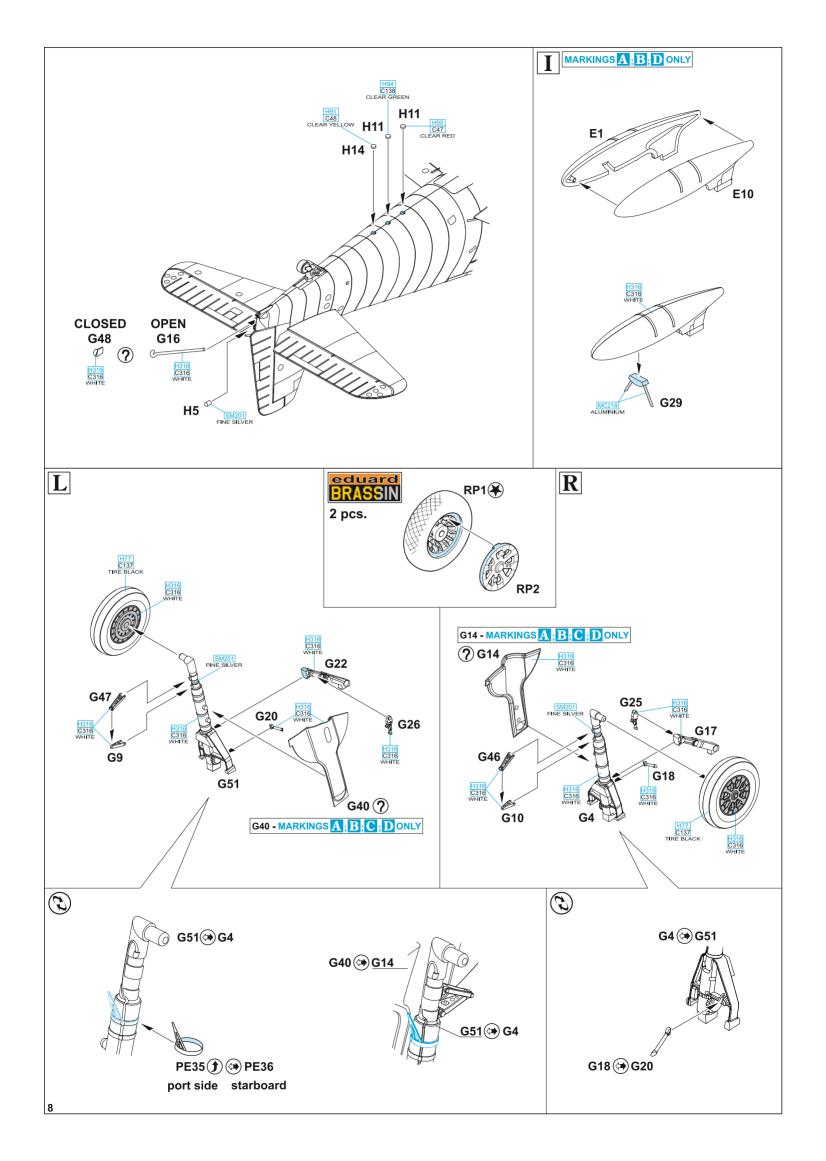


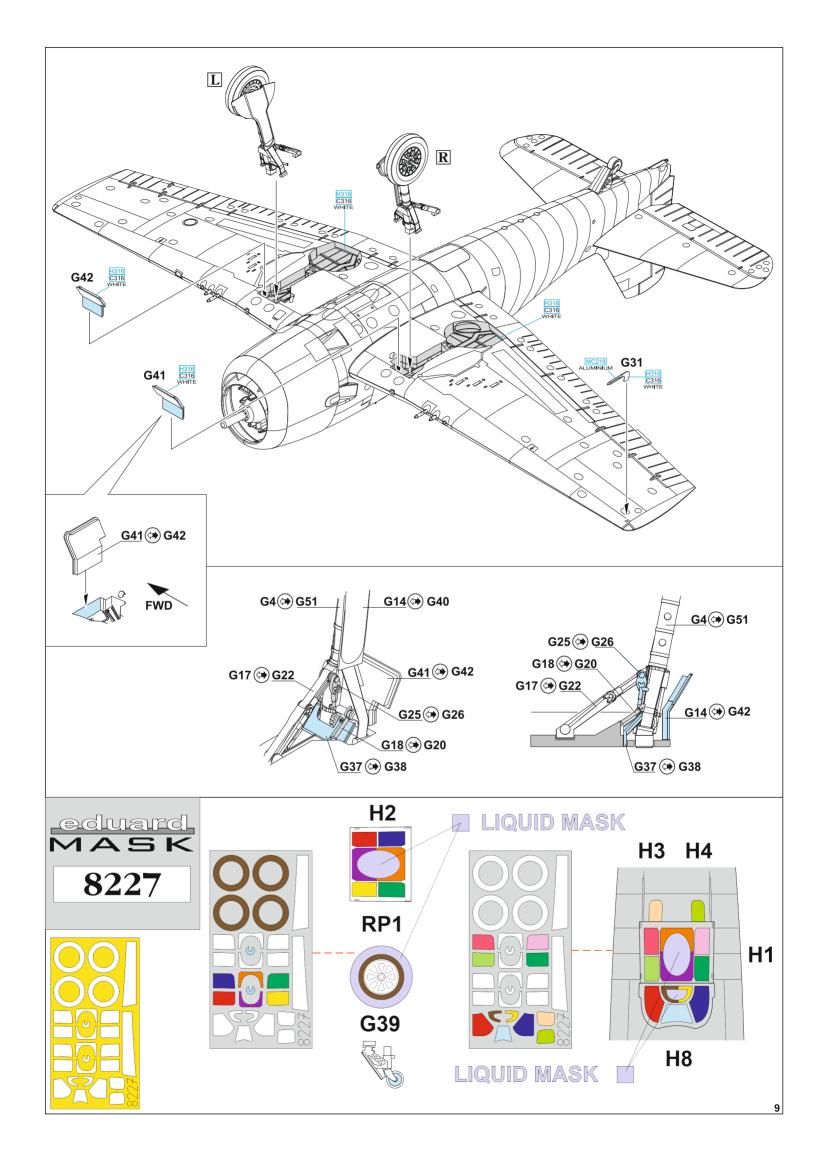


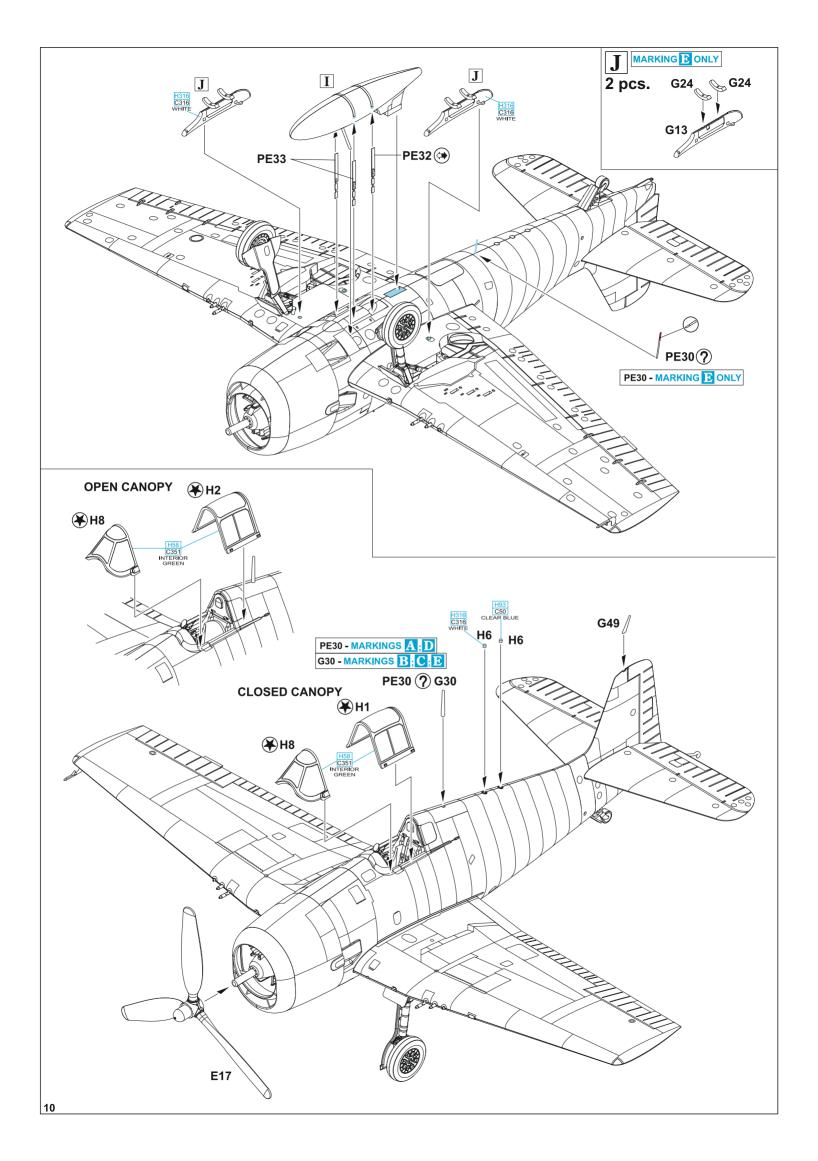






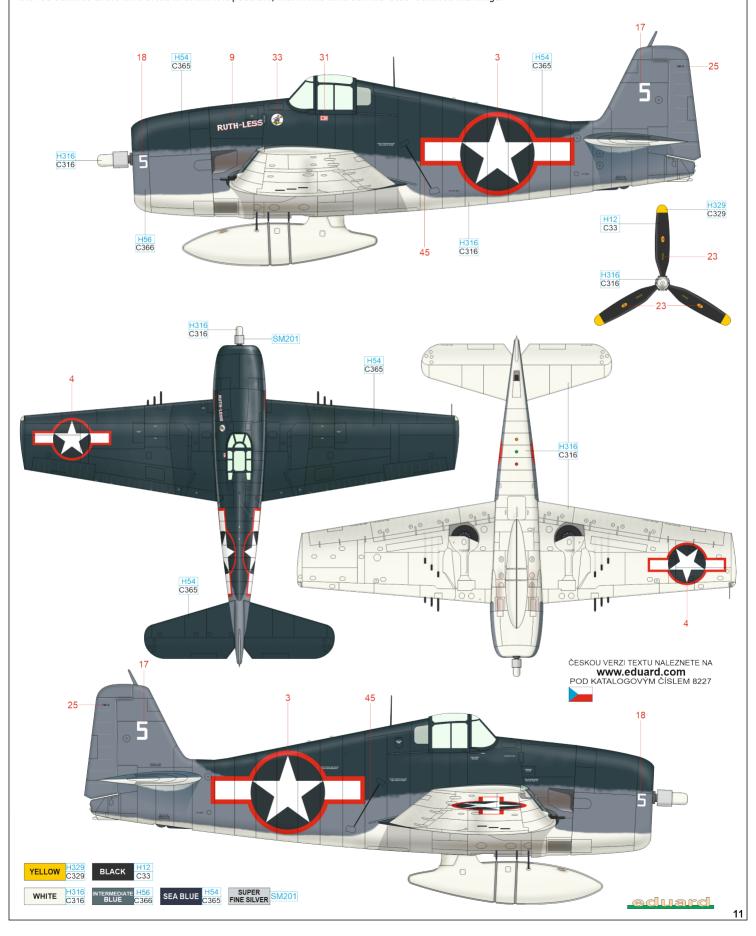






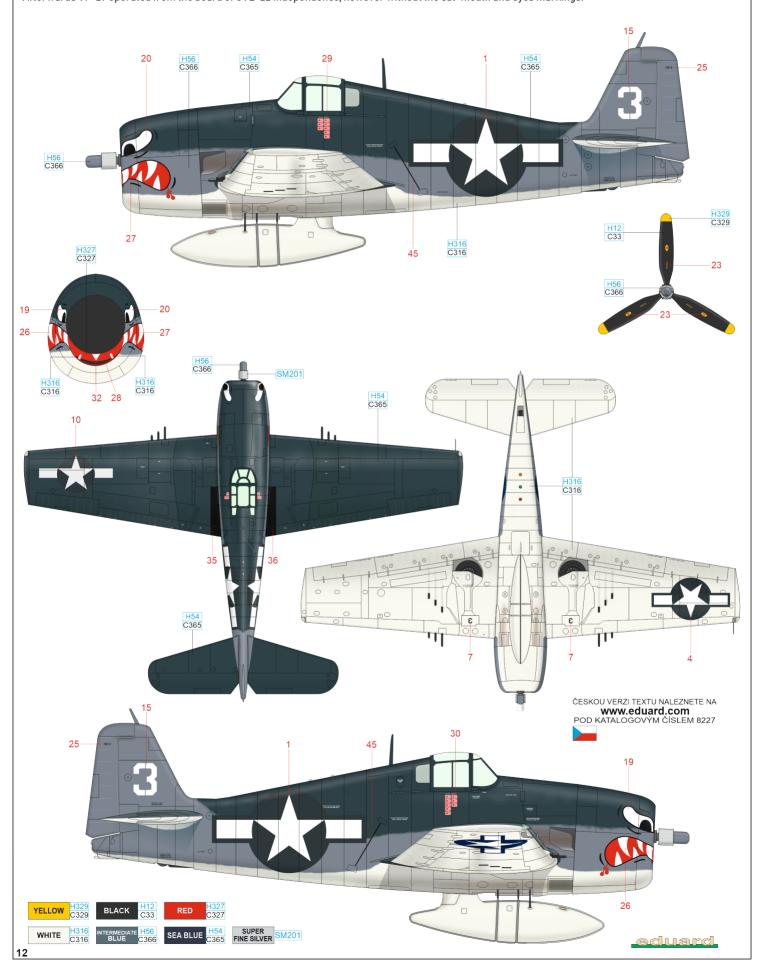
#### Lt. Oscar Chenoweth, VF-38, Segi Point airstrip, New Georgia Island, September 1943

Oscar Chenoweth was born on July 16, 1917, in Salem, Oregon. Having graduated from the High School he continued his studies at the Oregon State University, however he interrupted his education and in October of the same year enlisted in the US Navy. Having completed the fighter training Ens. Chenoweth flew as an instructor at a training unit. In the middle of 1943 he was assigned to VF-38 operating in the Pacific. Here he achieved his fist kill on September 15, 1943, when he shot down a Japanese Zero nearby Ballale island. Since January 1944 he flew Corsairs with VF-17 achieving another 7.5 victories over Japanese aircraft. Since June 1944 he was in command of the dive bomber squadron. In 1954 he retired from the US Navy and worked for Chance Vought. He passed away on May 9, 1968 due to the heart attack. Red outline of the national markings was discontinued as of August 14, 1943, due to the possible confusion with the Japanese Hinomaru. There is no photographic proof that Chenoweth aircraft carried the red outlines at the time of his first kill. It is possible, that in this time carried blue-outlined markings.



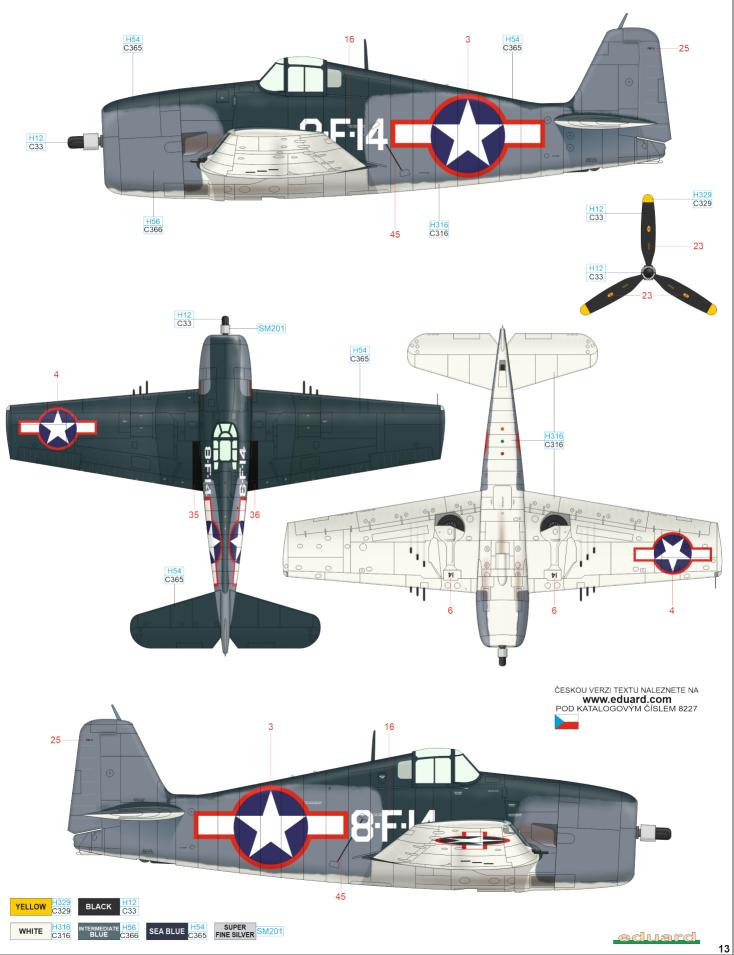
### B Ens. Gordon Arthur Stanley, VF-27, USS Princeton (CVL-23), October 1944

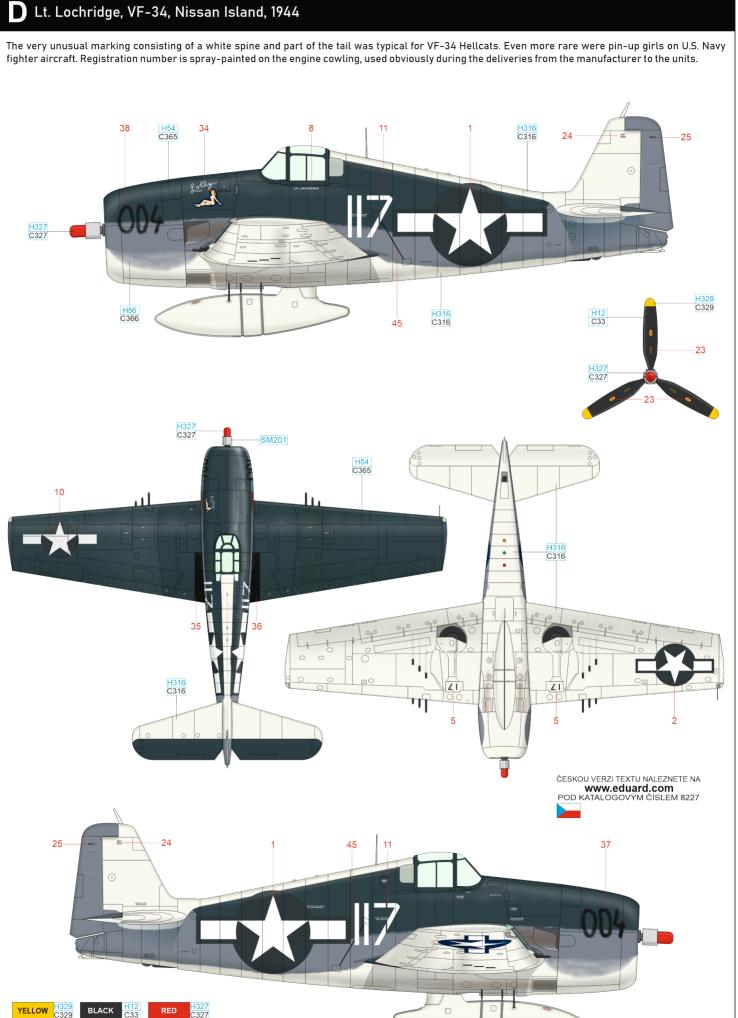
Gordon Arthur Stanley, born on July 13, 1921, in Seattle, Washington state, shot down 8 enemy airplanes in the course of World War Two, all achieved flying with VF-27. This unit became famous thanks to its unique marking - cat mouth and eyes, painted by Robert Burnell on all noses of the Hellcats belonging to this unit. Most of the Hellcats sporting the cat mouth with eyes was destroyed on October 24, 1944, during the Battle of Leyte Gulf. The aircraft ended up on the ocean bottom together with Light Aircraft Carrier Princeton sunk by the single bomb launched from the D4Y Suisei (Judy) dive-bomber. Afterwards VF-27 operated from the board of CVL-22 Independence, however without the cat-mouth and eyes markings.



### C VF-8, USS Intrepid (CV-11), Summer 1943

Second unit marked as VF-8 was established on June 1, 1943, under the command of LCdr. William M. Collins Jr. and was dispatched for the operational training aboard USS Intrepid which was sailing in the Caribbean Sea at that time. Tri-color camouflage, introduced as of January 5, 1943, for the application on the aircraft deployed to Pacific, composed of Non-specular Sea Blue, Semi-gloss Sea Blue, Intermediate Blue and Non-specular White, was applied slightly differently than on the other aircraft. National markings featuring the red outline were introduced as of June 28, 1943.



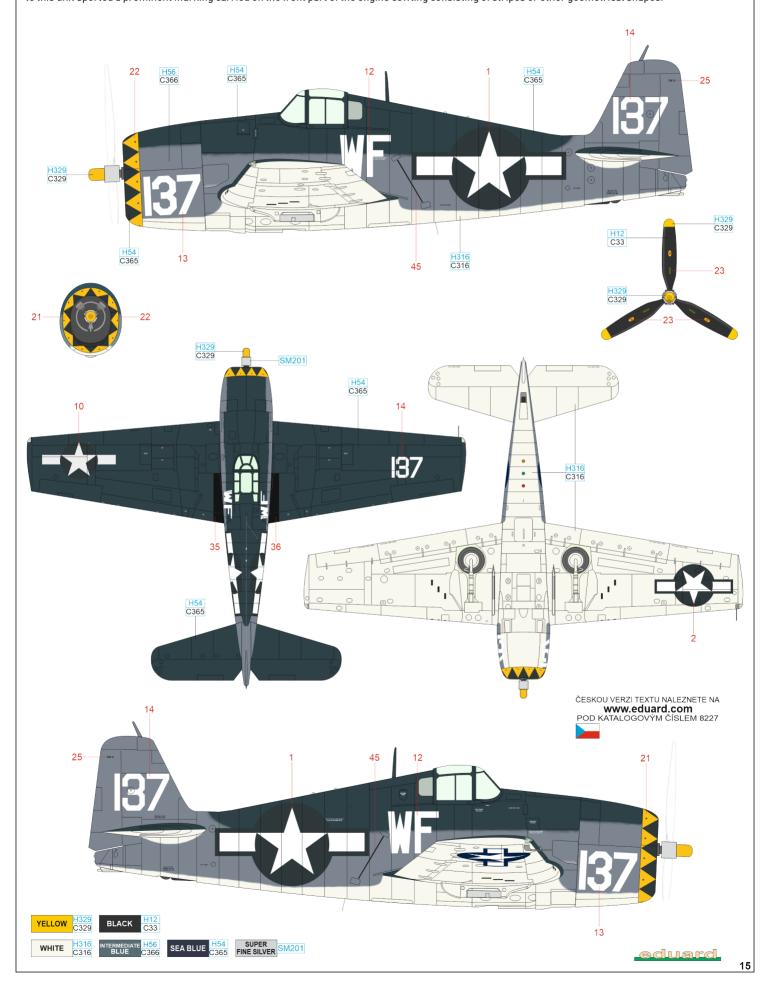


WHITE H316 C316

SEA BLUE H54 SUPER FINE SILVER SM201

### OTU VF-2, NAS Melbourne, United States of America, October 1944

Naval Air Station Melbourne was established on October 20, 1942 and the first training course commenced on January 18, 1943 on F4F Wildcat aircraft. Hellcats started to arrive at the unit as of June 1, 1943, fully replaced originally operated Wildcats as of October 1, 1944, and their inventory varied between 75 and 150 machines. During 1944, 546 pilots completed their pilot training at this base, another 916 pilots from January to October 1944. Hellcats belonging to this unit sported a prominent marking carried on the front part of the engine cowling consisting of stripes or other geometrical shapes.



## STENCILING POSITIONS

