# Spitfire HF Mk.VIII

# eduard

1/48 Scale Plastic Model Kit



### ProfiPACK edition

### The Supermarine Spitfire is so iconic, that virtually everyone can recognize it. The life of this elegant fighter spanned remarkable 13 years. It entered into service at the end of biplane era and remained on frontline duty use until the jet age.

By the early 30s the RAF was looking for replacement of its ageing Hawker Fury biplane fighters. The need of considerably faster aircraft was obvious, as the racing monoplane floatplanes reached about twice the speed of the Fury. One of the most successful designers of racing floatplanes was Reginald J. Mitchell. His Supermarine S.6B raised the world speed record to 407 mph (655 km/h) on September 20, 1931 and British Air Ministry, under influence of such achievement, issued the specification F.7/30 in October 1931. Although it called for modern pursuit airplane capable of at least 250 mph (400 km/h), seven out of eight entries were biplanes. The only monoplane proposal was Mitchel's Supermarine 224, but the design with a gull wing, fixed undercarriage and Rolls-Royce Goshawk engine was a disappointment because of the lack of speed and poor rate of climb. After that the RAF chose the Gloster Gladiator biplane as the winner.

#### Second attempt

The fiasco with Type 224 did not prevent Mitchell from further work. He persuaded the Supermarine company to fund the work on the completely new design Type 300 using brand new Rolls-Royce PV12 engine, later known as the Merlin. The Air Ministry expressed interest and issued specification F.37/34 on December 28, 1934 to fund a prototype armed with four wing mounted guns, but by April 1935 Mitchell received the detail of specification F10/35, calling for eight guns. The change was made on cost of bomb provision and reduction of the capacity of the fuel tanks to 66 gal. The decision caused the so called "short legs" of the Spitfire, meaning a lack of range and endurance. The Supermarine Type 300 made its maiden flight on March 5, 1936, an initial contract to produce 310 Spitfires was signed in June 1936.

#### Catching the progress

The Spitfire's development was an ongoing process from very early stage of its service and incorporated many changes. From the early Mk. I and Mk. II the development reached the point where a more substantial step was required. The Mk.V was a result, but it was in fact a Mk.I powered by the more powerful Merlin 45 series engine. The Mk.V entered service from early 1941, helping the RAF to counteract the Bf 109's development. But in September 1941, a hitherto unknown German radial engine fighter emerged and started to rule the European skies. The new Fw 190 was superior to British fighters, most distressingly even to the Spitfire Mk.V. The losses suffered by the RAF over western Europe rose rapidly and the crisis was serious enough that the RAF ceased most daytime operations during November 1941. The next attempt to resume this type of sorties was made in March 1942, but losses remained unacceptably high, and the RAF was forced to stop offensive operations once again. All this was due to the supremacy of the Focke-Wulf Fw 190A.

The RAF response to the new situation was to be the Spitfire Mk.VIII, but the design changes were so complex that initiating timely production was not possible, so another way of getting a powerful fighter as quickly as possible was sought for. The solution was found in mating the two-stage supercharger Merlin 61 with the Spitfire Mk.Vc. The fuselage was strengthened to accommodate the more powerful and heavier engine. Flight trials were successful and the series production commenced almost immediately in June 1942. The first Mk.IXs found their way to the No. 64 Squadron in July. Performance improved significantly and the Mk.IX became the main production Spitfire variant instead of the Mk.VIII.

#### High altitude threat

After the Mk.V, the development line of Spitfire was driven by the fear of high-altitude Luftwaffe bombers. Due to it the Air Ministry asked for the high-level Spitfire variant with pressurized cockpit. The Rolls-Royce Merlin 47 engine was used and drove a four-bladed Rotol propeller of 10 ft 9 in (3.27 m) diameter designed to provide increased thrust at high altitudes. The wing was modified with new pointed wingtips which extended the wingspan to 40 ft 2 in (12.2 m) for better high-altitude performance. As the threat of this bombing did not materialize, only 100 of the Mk.VIs were built and only two squadrons (Nos. 124 and 616) were fully equipped with them.

The next step, Mk.VII, was another development with pressurized cabin of slightly different design (further improved on later production examples by "Lobelle" design) and powered by Merlin 64 (F Mk.VII) or 71 (HF Mk.VII) engine with two-stage, two-speed supercharger.

Pointed wingtips were fitted on C type wing, but many Mk.VIIs were later reverted to the normal, rounded wingtip.

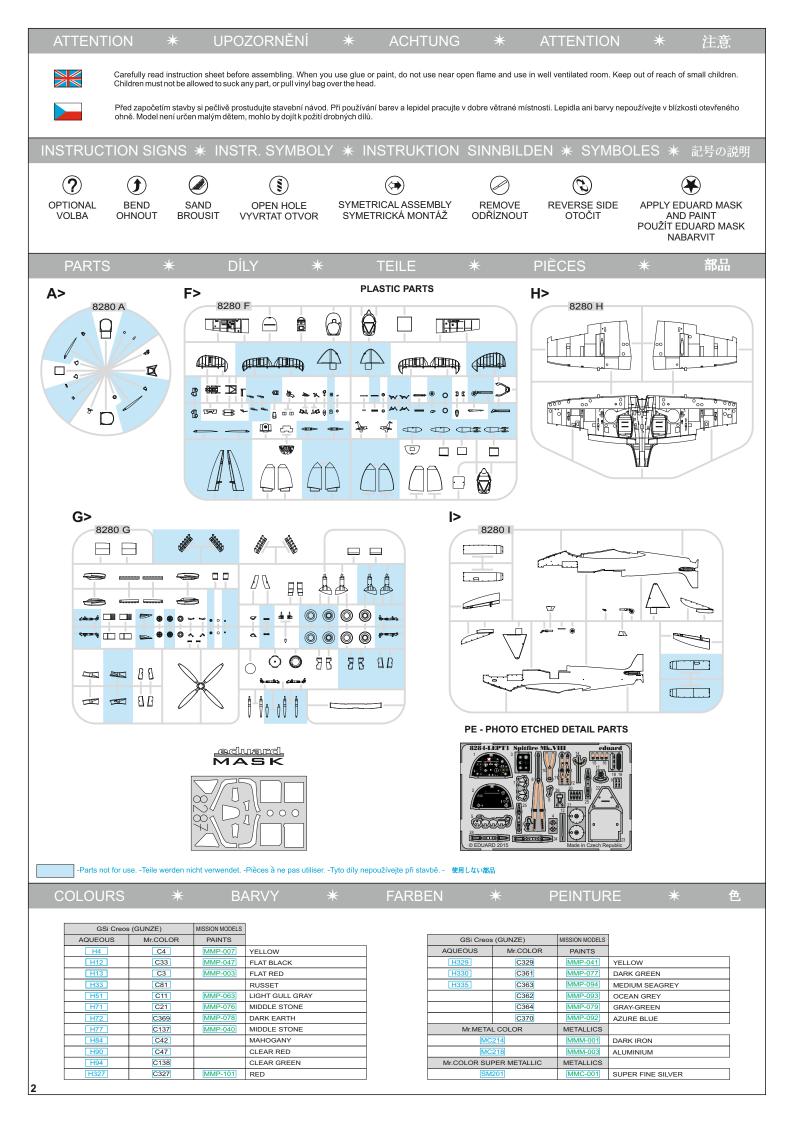
#### This kit: Spitfire HF Mk.VIII

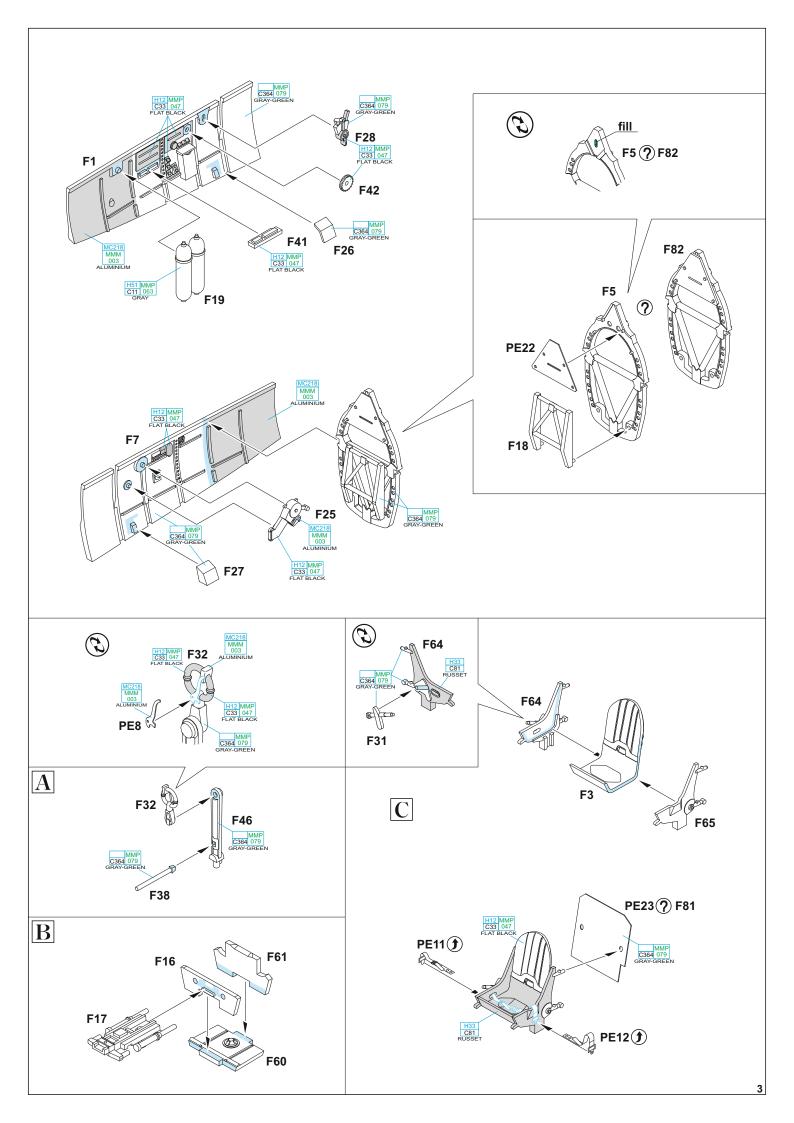
The Spitfire Mk.VIII was basically Mk.VII with the pressurized cockpit deleted. As it became clear the "stopgap" Mk.IX would be adequate for fighting the new Fw 190s, the production of Mk.VIII was shifted to the Castle Bromwich factory only.

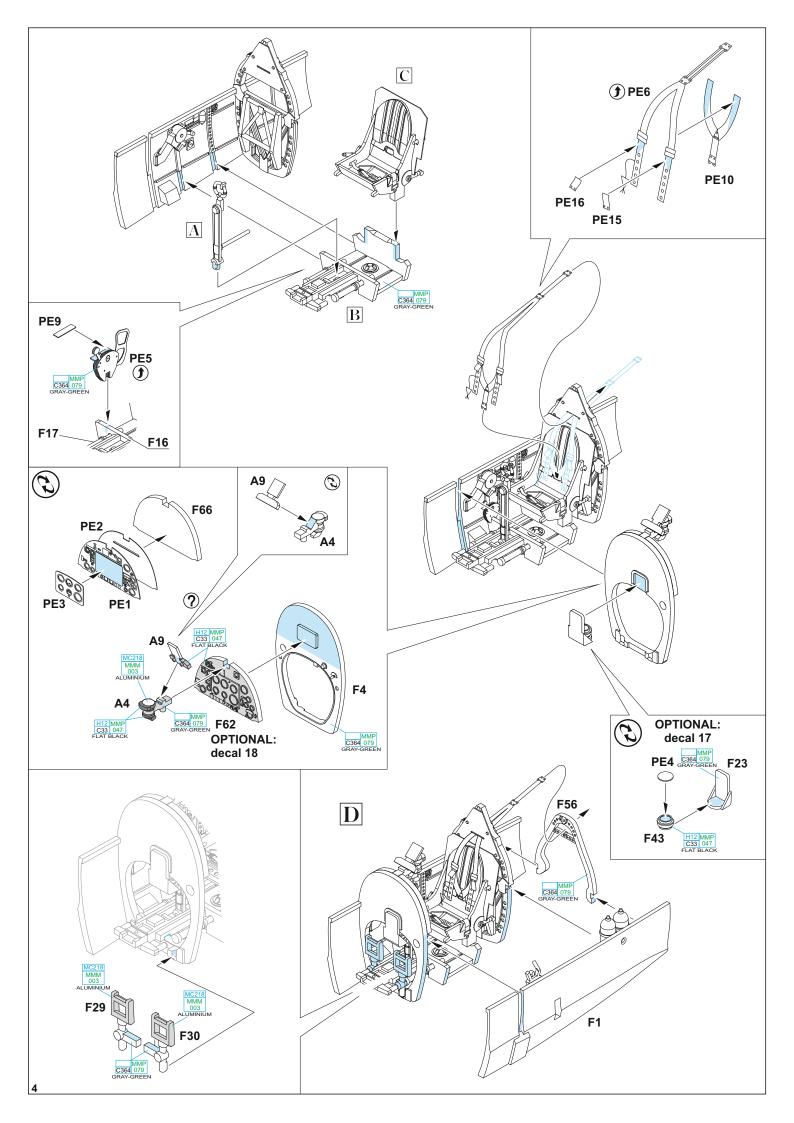
The Mk.VIII differed little from the Mk.VII, the main difference was reshaped fin and pointed rudder. Some early production examples had extended wingtips, but as they had no value for Mk.VIII and reduced the aileron response and the rate of roll, most of Mk.VIIIs were fitted with the standard wing. There were three sub-variants for low altitude (LF Mk.VIII), medium altitude (F Mk.VIII) and high altitude (HF Mk.VIII) which differed in engine used, as they were powered by the Merlin 66, Merlin 63 and Merlin 70 respectively.

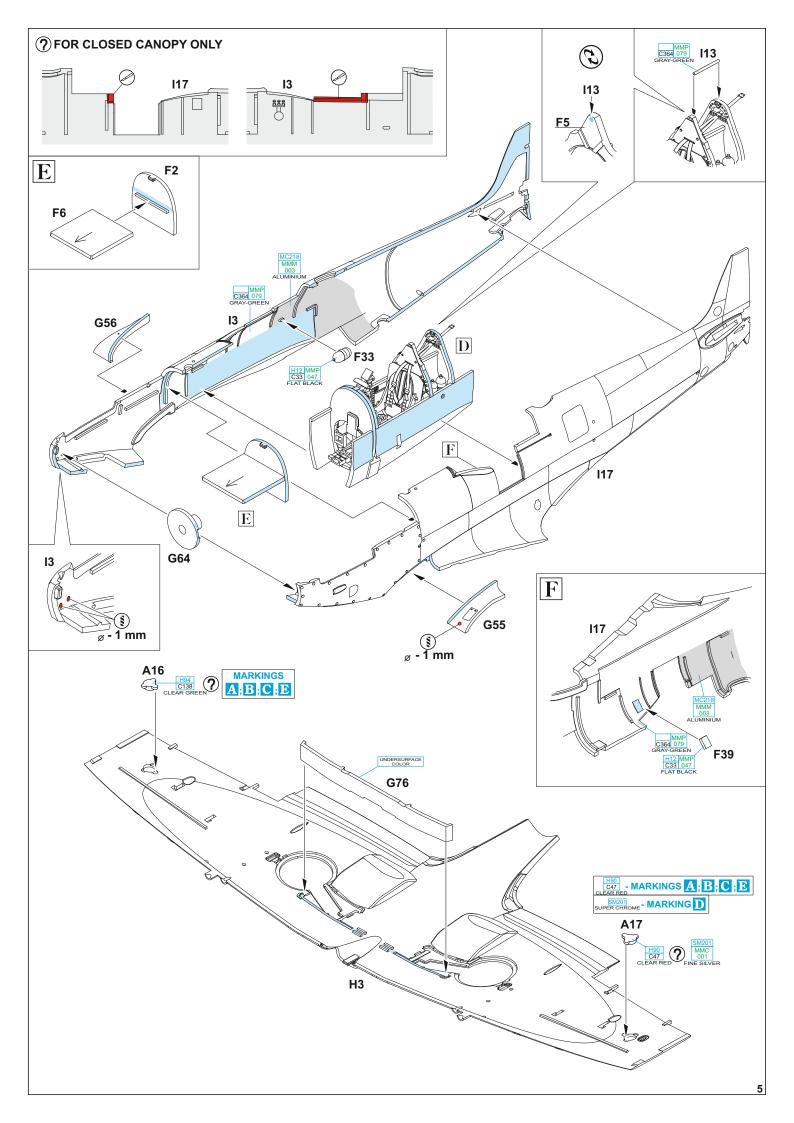
The two main fuel tanks had volume increased by 11 gal for a total of 96 gal. With the volume of wing tanks, it allowed the range of 660 mi (1,060 km). Provision was also made to allow the Mk.VIII to carry a single drop tank of the volumes of 30, 90 or 170 gal. With 90gal drop tank the range extended to 1,180 mi (1,900 km) and with the 170gal one even 1,500 mi (2,400 km). Thanks to the longer range the Mk.VIII better suited to the operations in the Far East. A maximum external bomb load of 1,000 lb (460 kg) with one 500 lb under the fuselage rack and two 250 lb (110 kg) bombs under each wing.

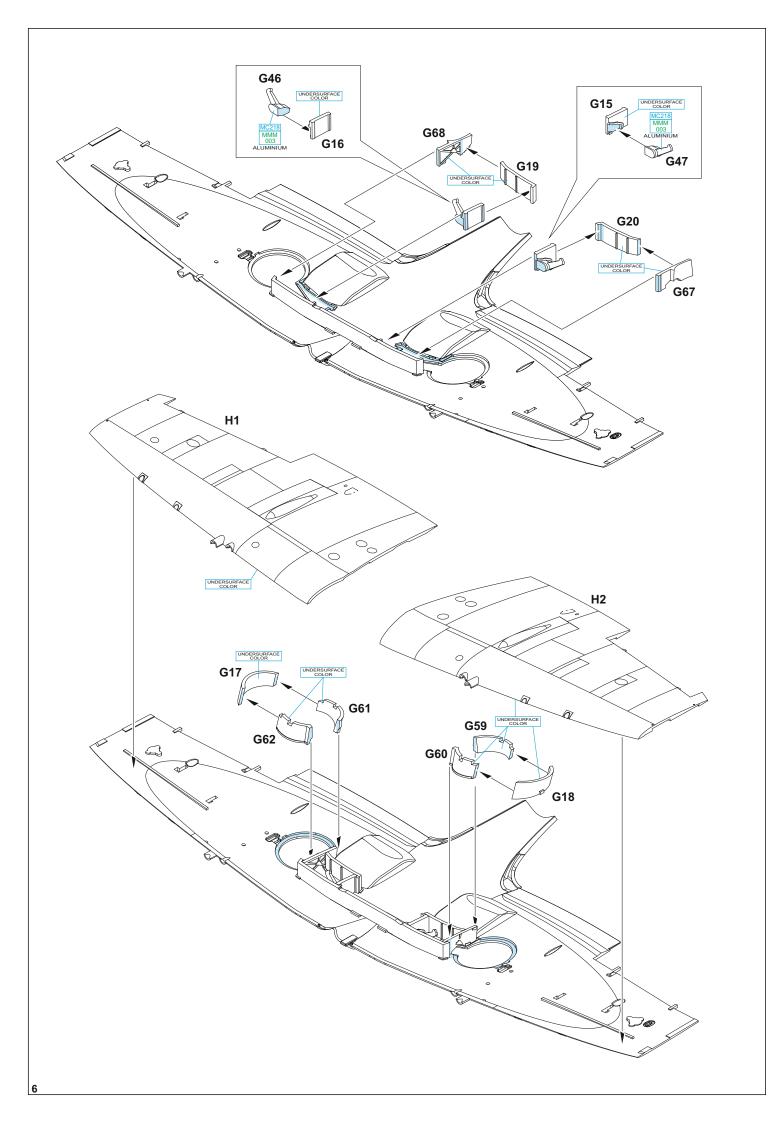
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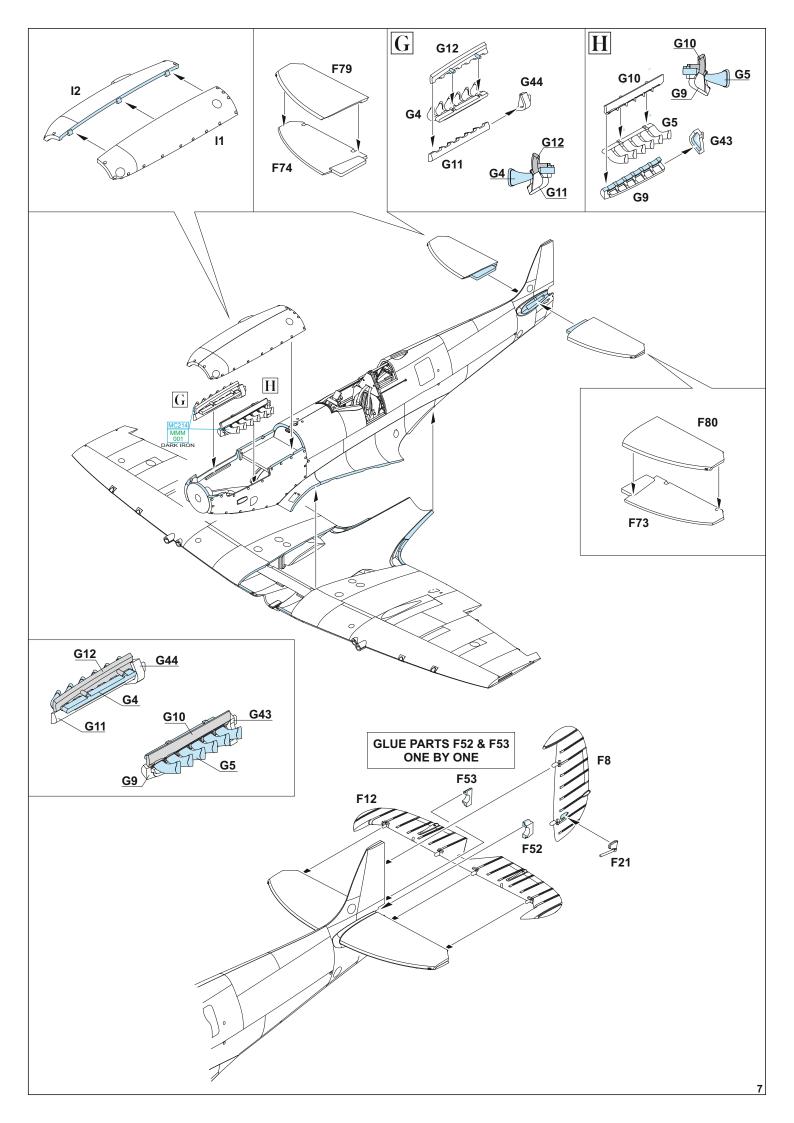


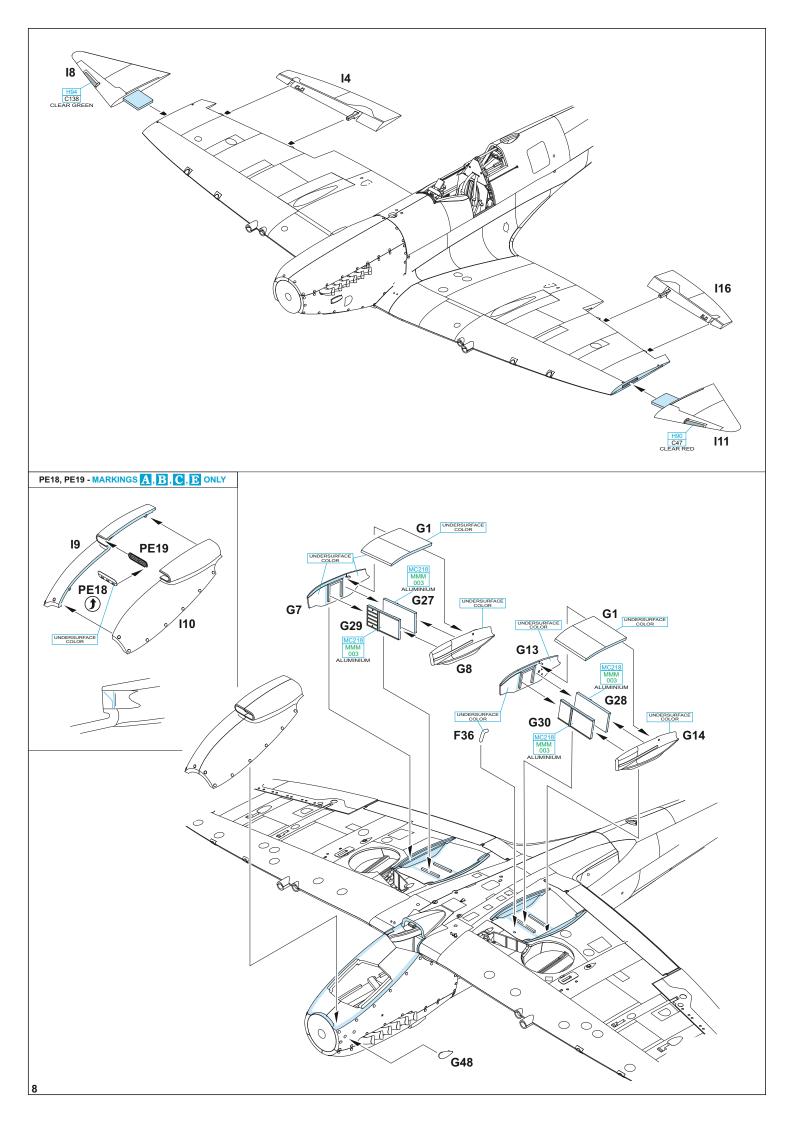


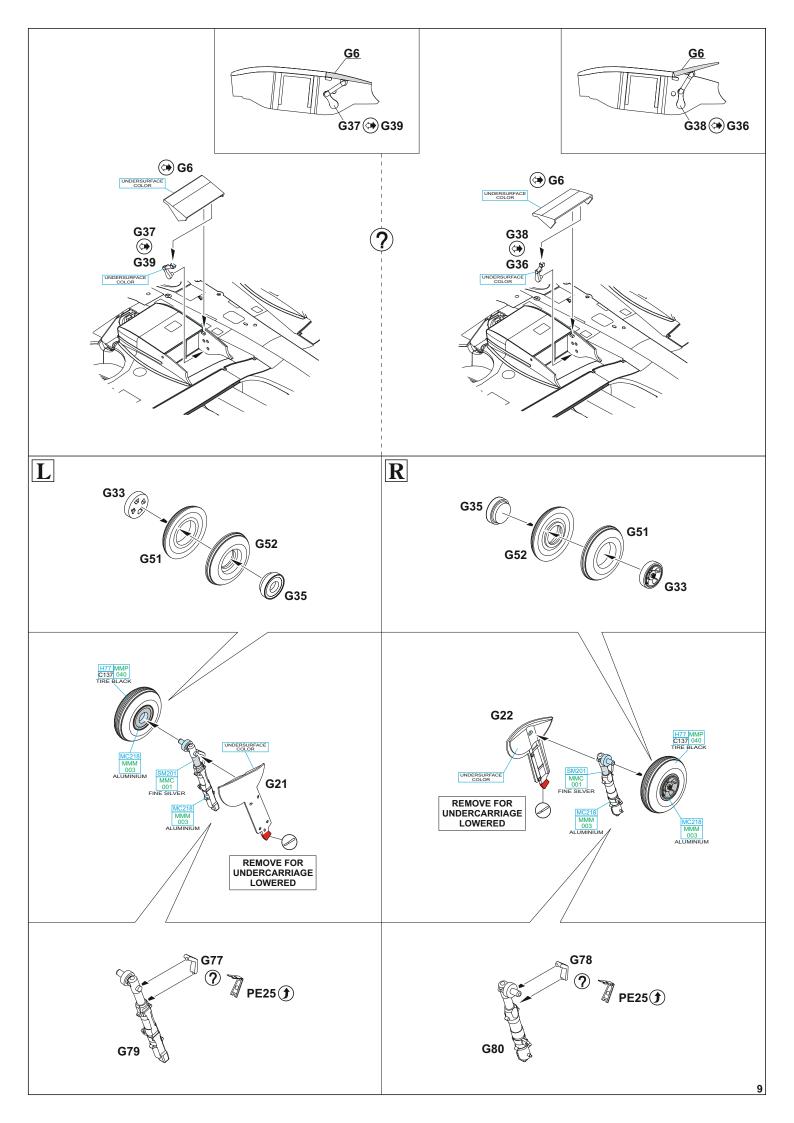


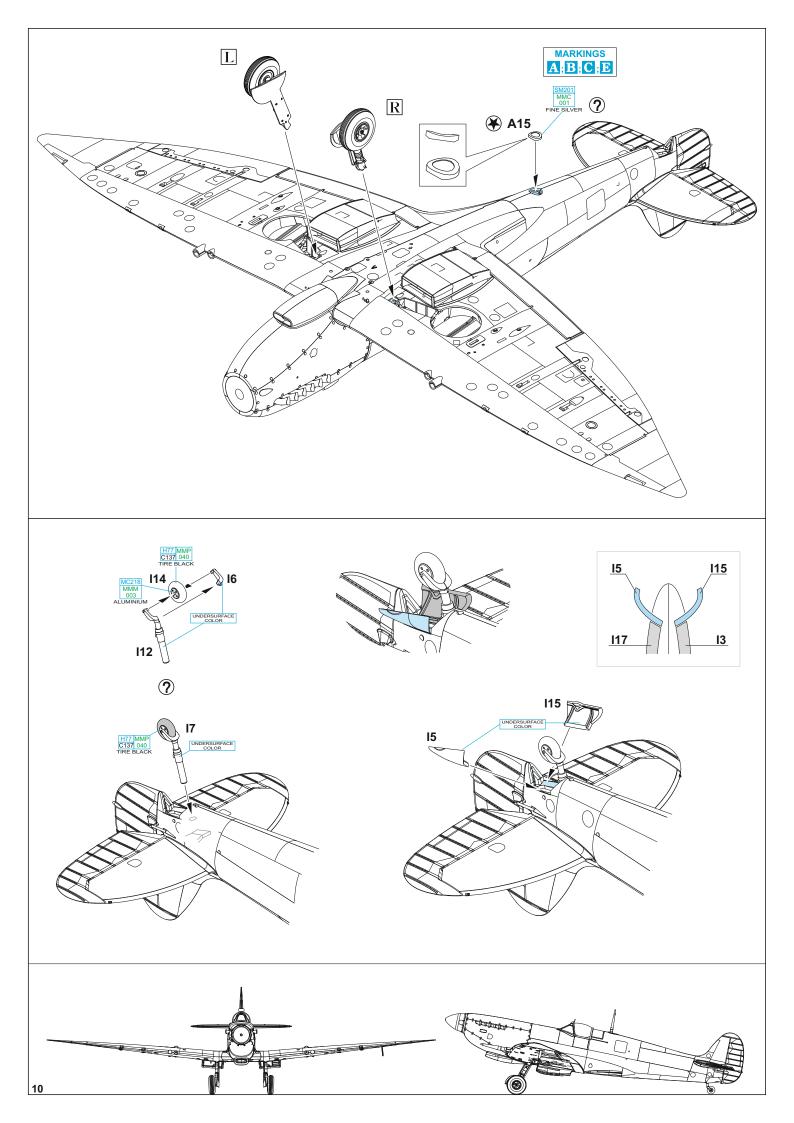


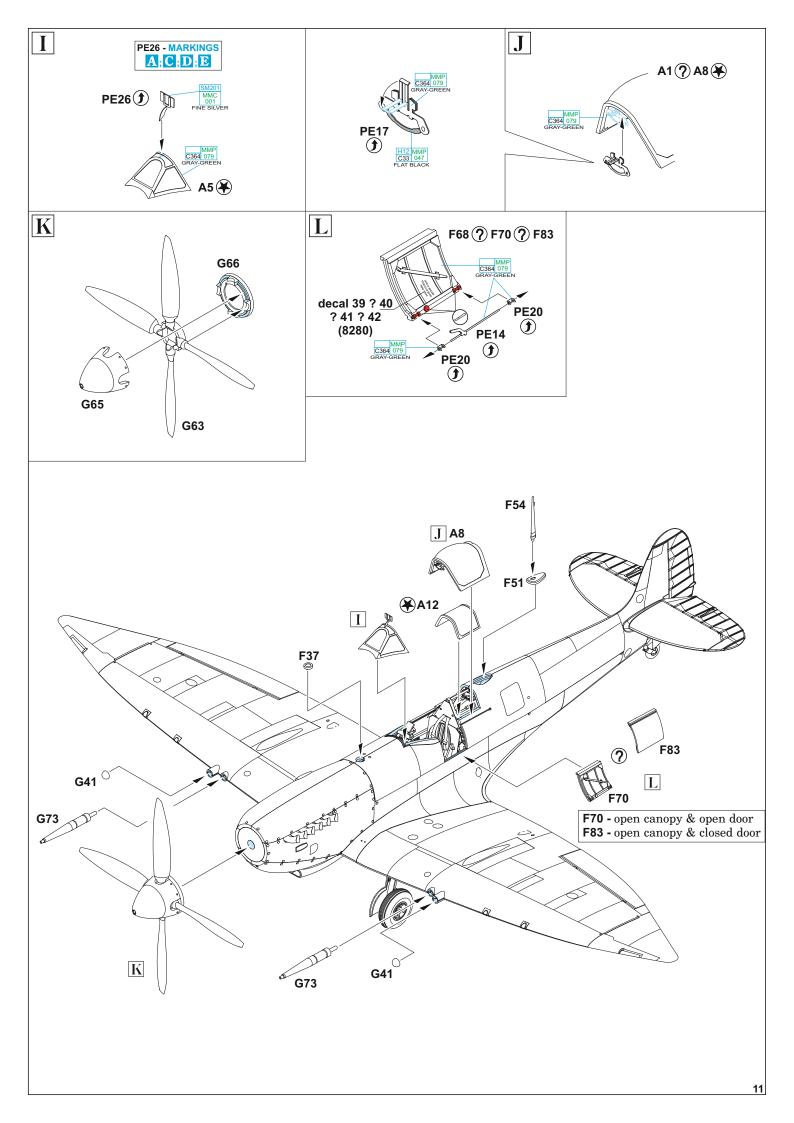


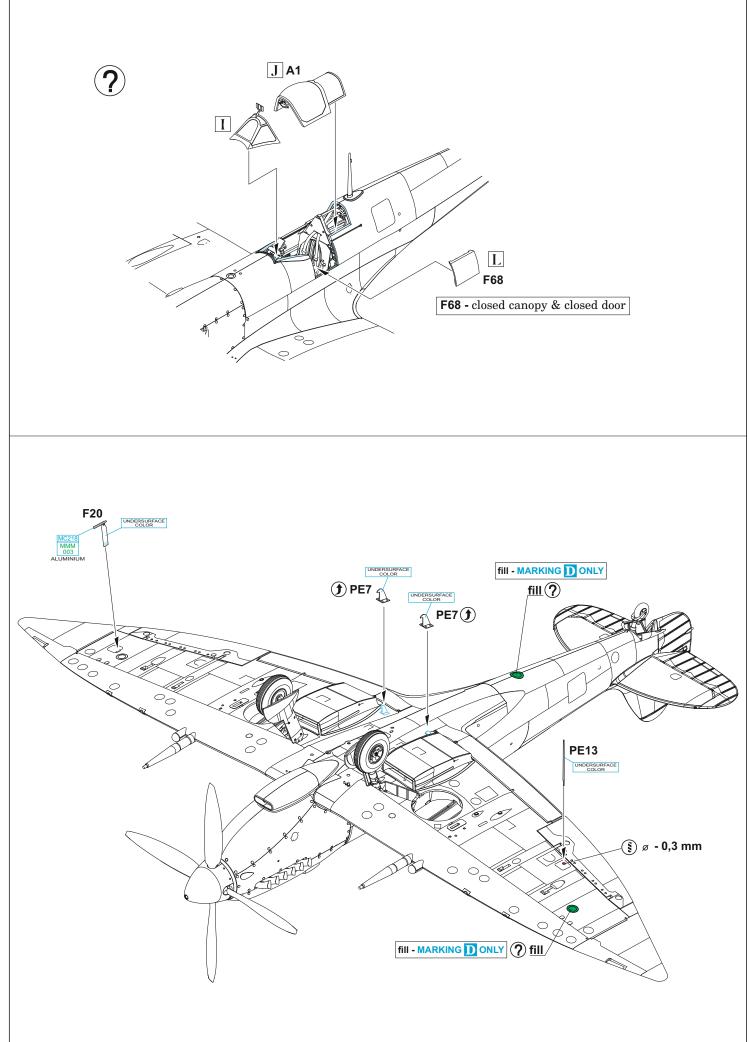


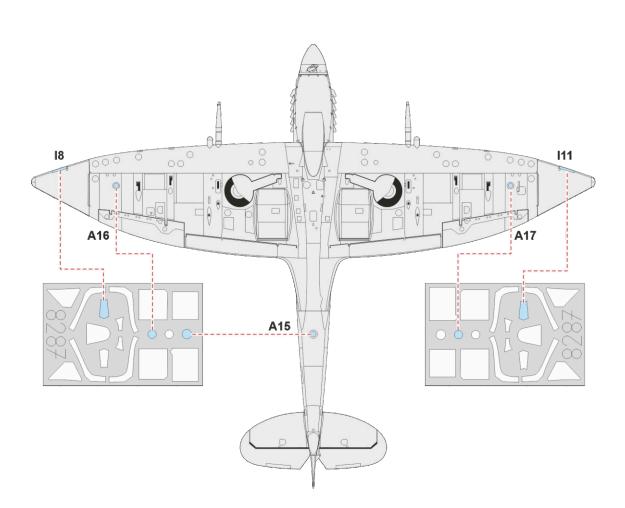


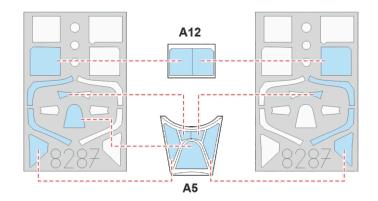


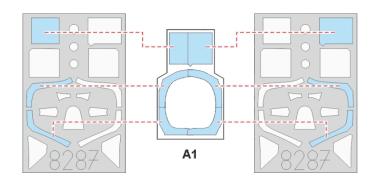




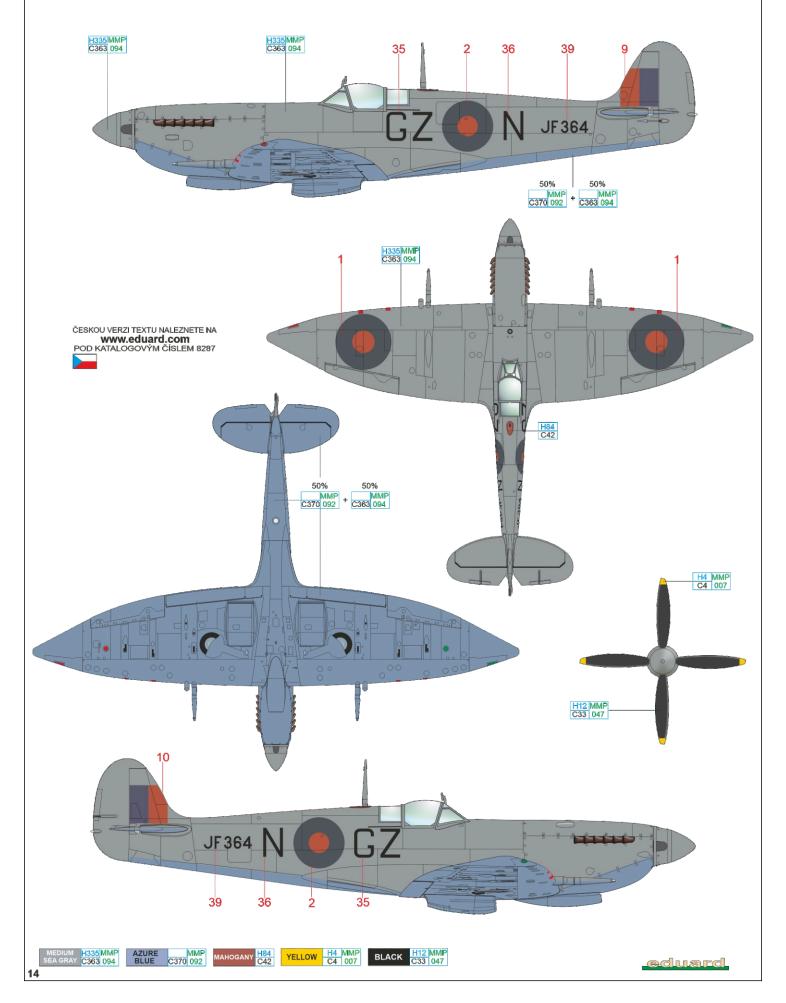






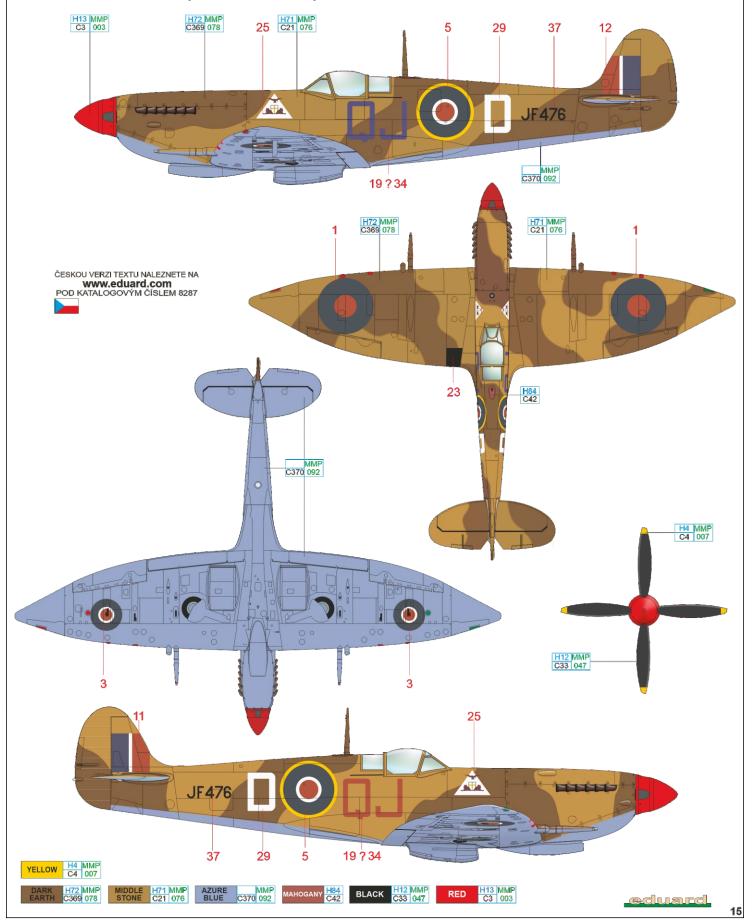


The high altitude fighter camouflage scheme adorned this Spitfire as well. In accordance with regulations, red-blue cockades were painted on the fuselage and upper sides of the wings. No national insignia was applied on the bottom of the wings. A photo of this aircraft shows that the GZ code letters did not adhere to regulations on the right side of the fuselage. The aircraft was equipped with extended wingtips.



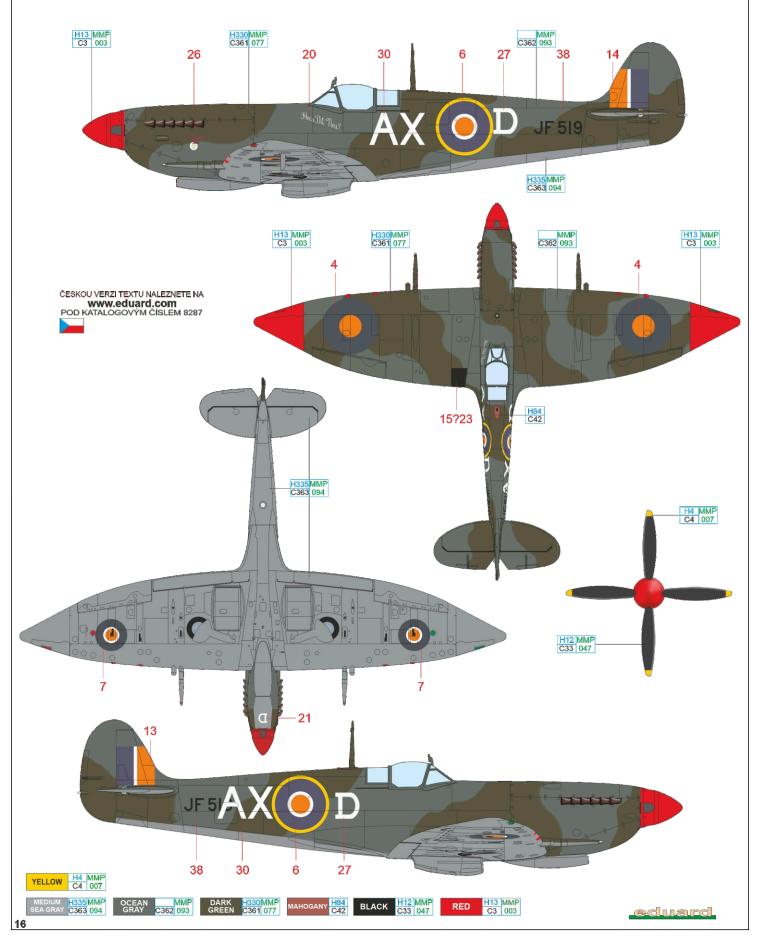
### JF476, No. 92 Squadron, Triolo, Sicily, November 1943

Originally No. 92 Fighter Squadron fighting in WWI was cancelled in August 1919. On October 10, 1939 a squadron bearing the same number was established. It was first equipped with Bristol Blenheims. Right at the beginning of year 1940 it got Spitfires, which were fighting above Dunkerque and also fought in the Battle of Britain. In February 1942 the squadron was sent to Africa where it served against German and Italian armed forces. After the fights in Africa terminated, the squadron fought above Malta and Sicily, later the squadron served above Italy. The squadron was disbanded on December 30, 1946, in Austrian Zeltweg. During WWII it reached the highest number of shot downs of the enemy aircraft among the RAF Wings, 317 victories over the enemy aircraft. No. 92 Squadron aircraft had a Desert Scheme Camouflage. This consisted of Dark Earth and Middle Stone colours on the top surfaces, the undersides were painted in Azure Blue colour. The colour of the letters of coding of the squadron could not be clearly determined, various sources state blue and red. Both sides of the fuselage bore Desert Air Force sign.



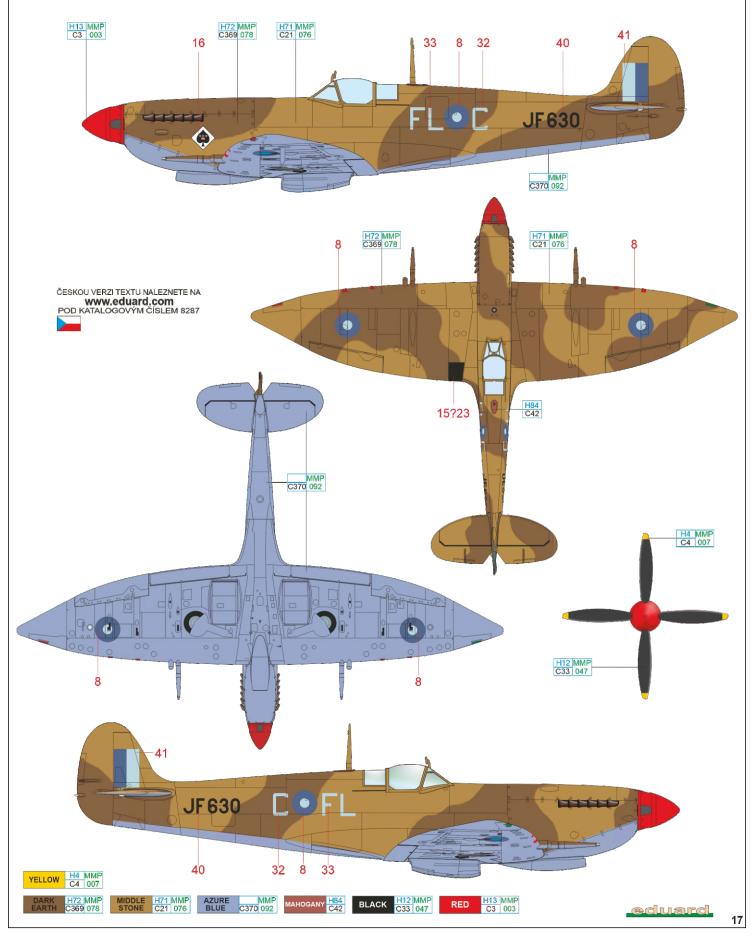
### C JF519, No. 1 Squadron SAAF, Trigno, Italy, June 1944

No.1 Squadron SAAF was established in February 1940 by renaming of the No. 6 Squadron SAAF armed with Hawker Hurricane and Fury aircraft. In the mid of the year 1940 the pilots of this unit joined the fights above North Africa. At the turn of 1942 and 1943 the squadron received Spitfires and flew them in the fights under the African sun. These fights were followed by the use of these aircraft above Malta and Sicily. The wartime presence of the squadron finished in Italy. After WWII, the squadron remained active, first with Spitfires, Vampire, Sabre and Impala and then, in April 1975, the squadron was rearmed with French Mirage F.1. The squadron was disbanded on November 25, 1997, at the Hoedspruit Base. The Mk.VIII Spitfires used by No.1 Squadron SAAF above Italy had a Day Fighter Camouflage Scheme. The upper surfaces were painted in Ocean Grey and Dark Green; the undersides with Medium Sea Grey colour. The wing tips of Spitfires of this squadron were painted red.



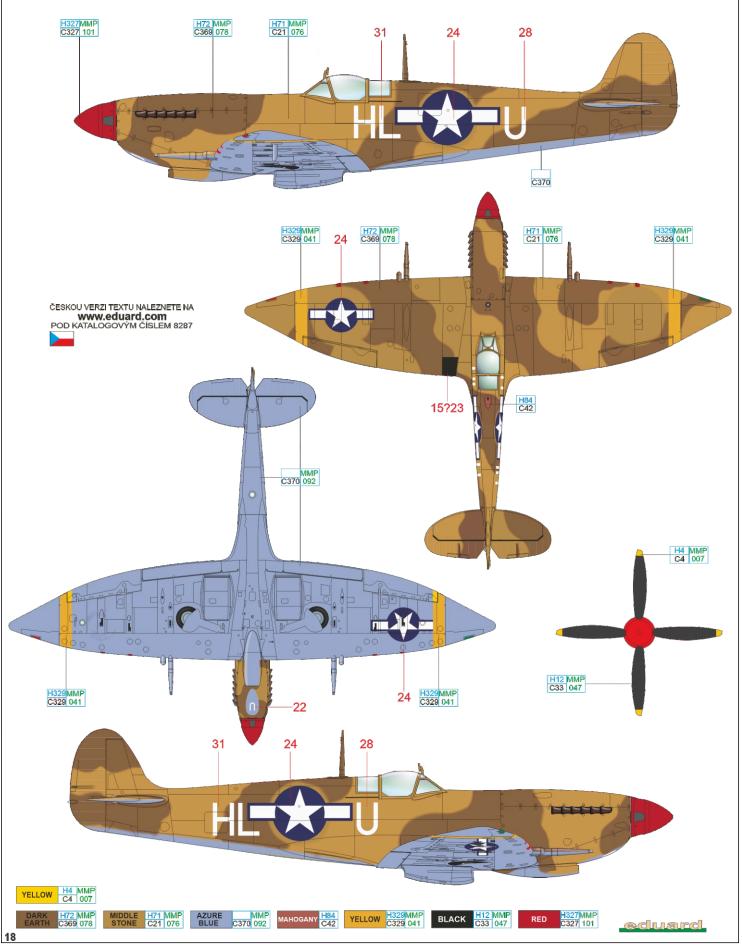
#### JF630, F/O L. Cronin, No. 81 Squadron, Palel, India, March 1944

According to the interview with Larry Cronin the squadron A/C retained their desert colours. The pilot maintains that his aircraft still had its extended wingtips when he gained his victories. In November 1943, No. 81 Squadron RAF, withdrew from Sicily to Egypt where they re-equipped with Spitfire Mk.VIII aircraft. Cronin recalls that all these aircraft were in the JF serial range and had extended wingtips and standard rudders. Photos of aircraft in this serial batch showing this configuration support his comments. Most sources state that the aircraft were re-camouflaged in Dark Earth, Dark Green and Sea Grey Medium when they arrived in India. The comments in those sources appear to be based on an order issued by RAF Headquarters, New Delhi. The date of the order is April, 1944, some three months after No. 81 Squadron's arrival in the theatre, and a month after the only known photos of Cronin's aircraft were taken.



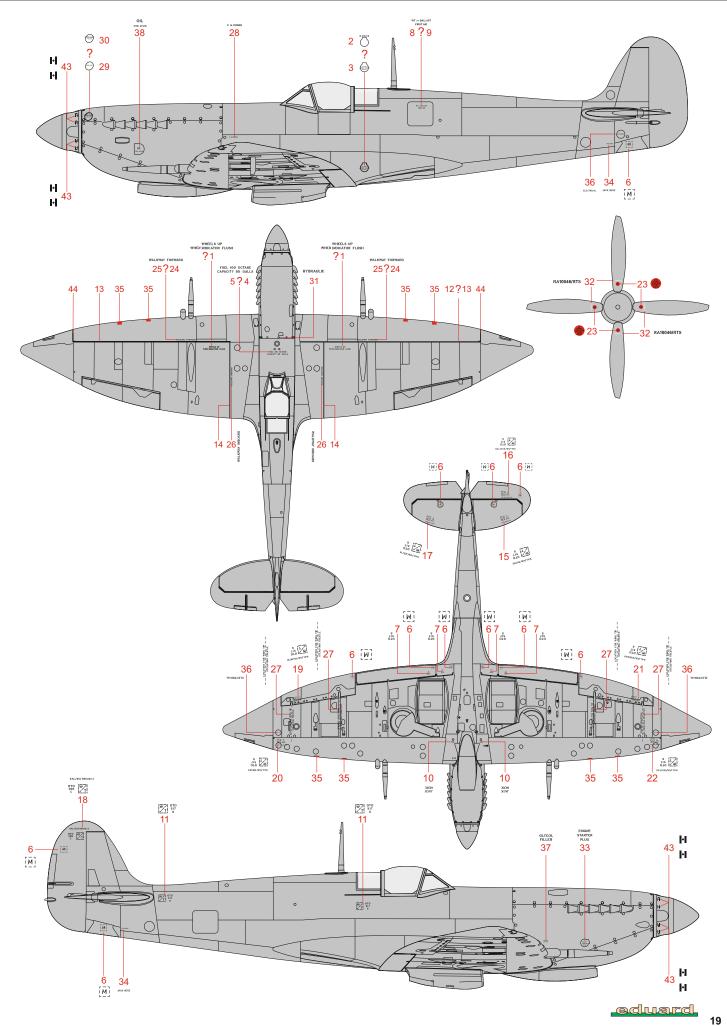
#### ■ 308<sup>th</sup> Fighter Squadron, 31<sup>st</sup> Fighter Group, Castel Volturno, Italy, 1944

308<sup>th</sup> Fighter Squadron was armed with P-39s and P-40s. The performance of these fighters was not enough to keep up with German opponents, which led to a relatively quick rearmament to Spitfires Mk.V. The Spitfires were used by 31<sup>st</sup> Fighter Group in a two-month heavy fights above northern France. Later the group was transferred to Gibraltar to use the base for take offs for Algeria as part of the disembarkation of the Allies in North Africa (Operation Torch). What followed were the fights against the forces of the Axis in North Africa. In May 1943 the 308<sup>th</sup> Fighter Squadron received Spitfires Mk.VIII, which were than used in the fights above Sicily and Italy. In March 1944, the Spitfires were replaced by P-51 Mustangs, which were used by 308<sup>th</sup> Fighter Squadron pilots till the end of war.



# Spitfire HF Mk.VIII

# STENCILING POSITIONS



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