Spitfire Mk.XVI Bubbletop ______

1/48 Scale Plastic Model Kit



ProfiPACK edition

The Supermarine Spitfire is so iconic airplane, that virtually everyone can recognize it. The service of this elegant fighter spanned remarkable 13 years. It entered the service at the end of biplane era and remained in the frontline 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 of that time reached about twice the speed of the Fury. One of the most successful designers of the racing floatplanes was Reginald J. Mitchell. His Supermarine S.6B raised the world 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 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 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.

Early work

The fiasco with Type 224 did not prevent Mitchell from further work. He persuaded the Supermarine company to fund the work on 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 the prototype armed with four wing mounted guns. But by early April 1935 Mitchell received the detail of specification F10/35, calling for eight guns. The change was made on cost of bomb provision removal and reduction of the capacity of the fuel tanks to sixty-six gallons. 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, initial contract to produce 310 Spitfires was signed in June 1936 and the first unit to receive the new fighter was No. 19 Squadron at Duxford in August 1938.

Catching the progress

The development of Spitfire was ongoing process from very early stage of its service and incorporated many changes. From the early Mk. I and Mk. II the development was reaching 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 the service from early 1941, helping the RAF to counter-measure development of the Bf 109. 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 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 these sorties was made in March 1942. But losses remained unacceptably high. All this was due to the supremacy of the Focke-Wulf Fw 190A.

The first RAF response to the new situation would be he Spitfire Mk.VIII, but the design changes were so complex that initiating timely production was not possible. Therefore the solution was found in mating the two-stage supercharger Merlin 61 with the fuselage of the Spitfire Mk.Vc.

Saviour

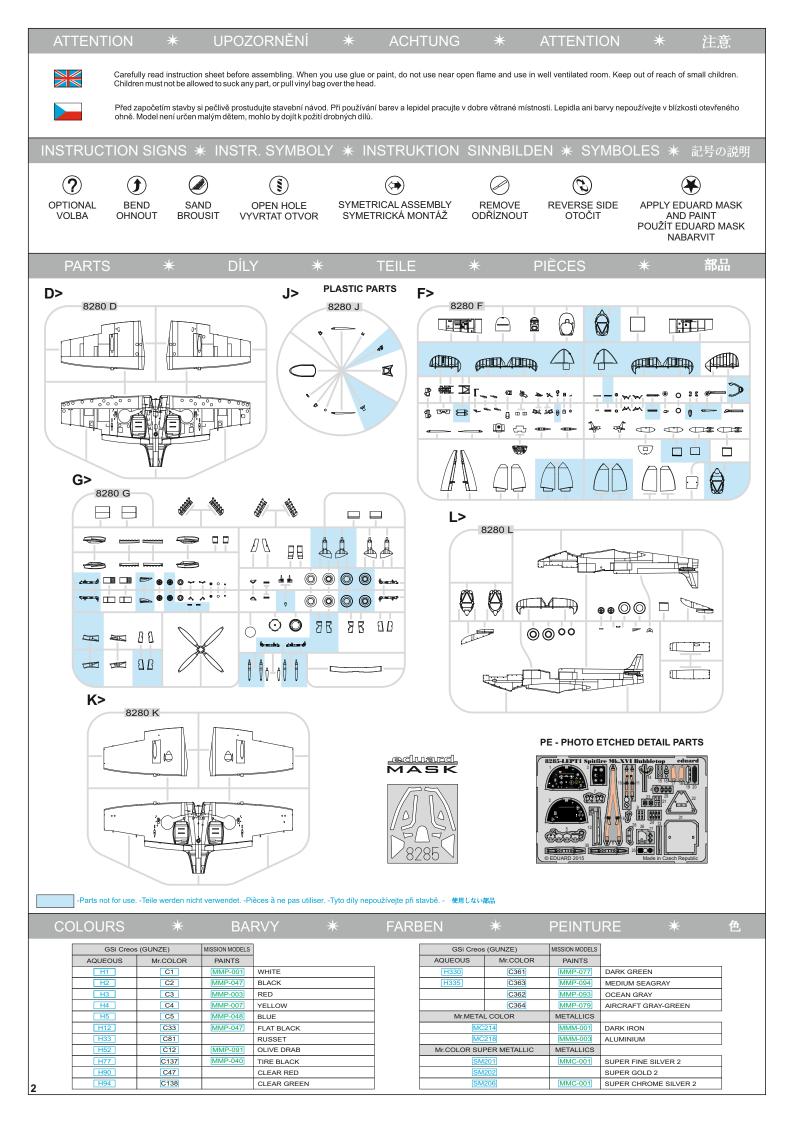
Two Mk.Vc airframes, AB196 and AB197, were selected for the conversion and their fuselage was strengthened with modified longerons to accommodate the more powerful and heavier engine. The first example was finished on February 26 and the second on March 27, 1942. Flight trials were successful and the order for series production was issued almost immediately. Series production began in June 1942 and the first Mk.IXs found their way to No. 64 Squadron in July. Performance improved significantly in comparison to the Mk.V. The top speed of 409 mph (658 km/h) at 28,000 feet (8530 m) was higher by 40 mph (64,4 km/h), and the service ceiling rose from 36,200 ft (11,033 m) to 43,000 ft (13,106 m).

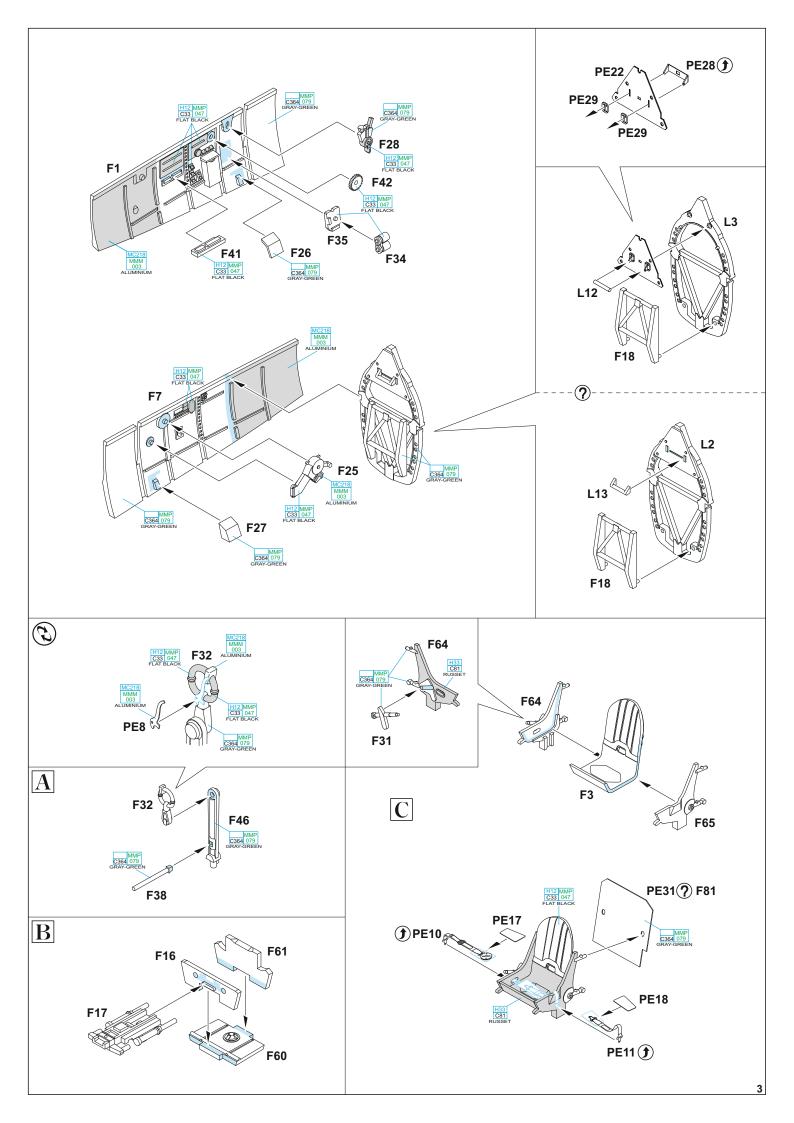
With the Mk.IX the RAF finally got a fighter capable to oppose the Fw 190A. Three main variants of the Mk.IX were produced. The F Mk.IX was powered by the Merlin 61 and was the only version on the assembly line in early 1943. The next was the LF Mk.IX powered by the Merlin 66. This engine was designed to do its best at low-to-medium attitude. The third version, manufactured along with the LF one, was the high-altitude HF Mk.IX with the Merlin 70.

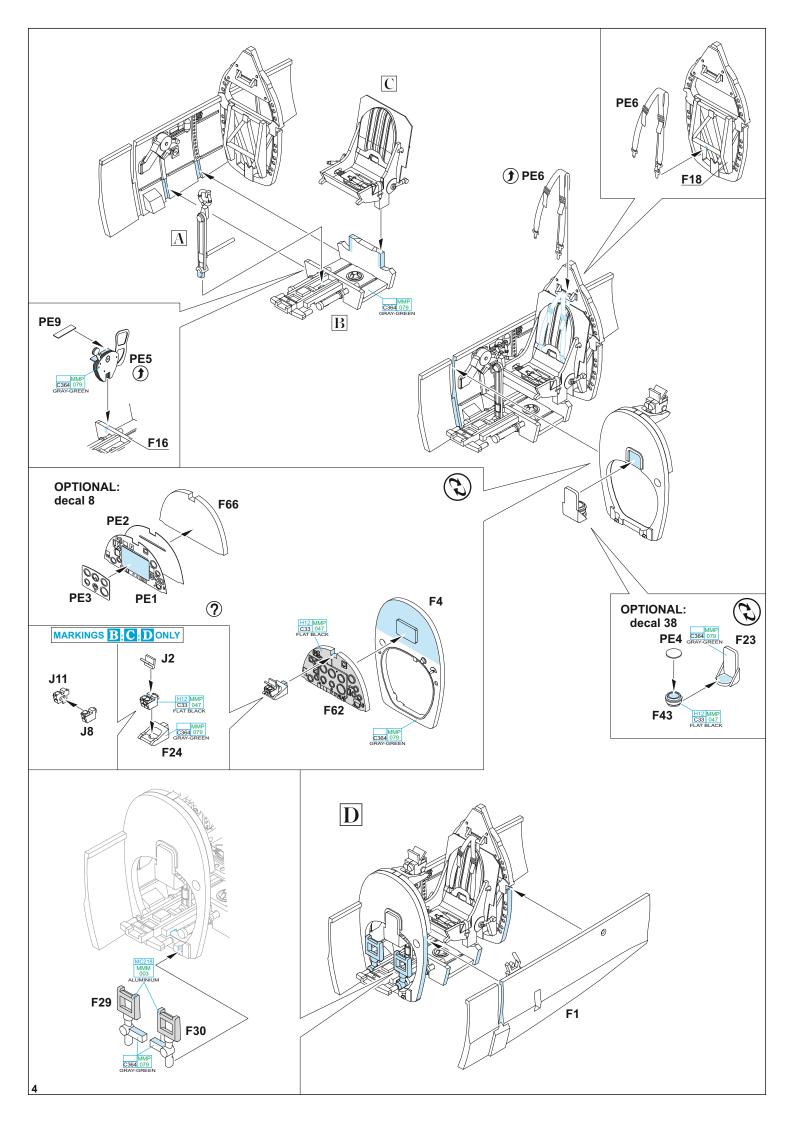
The Kit: Mk.XVI Bubbletop

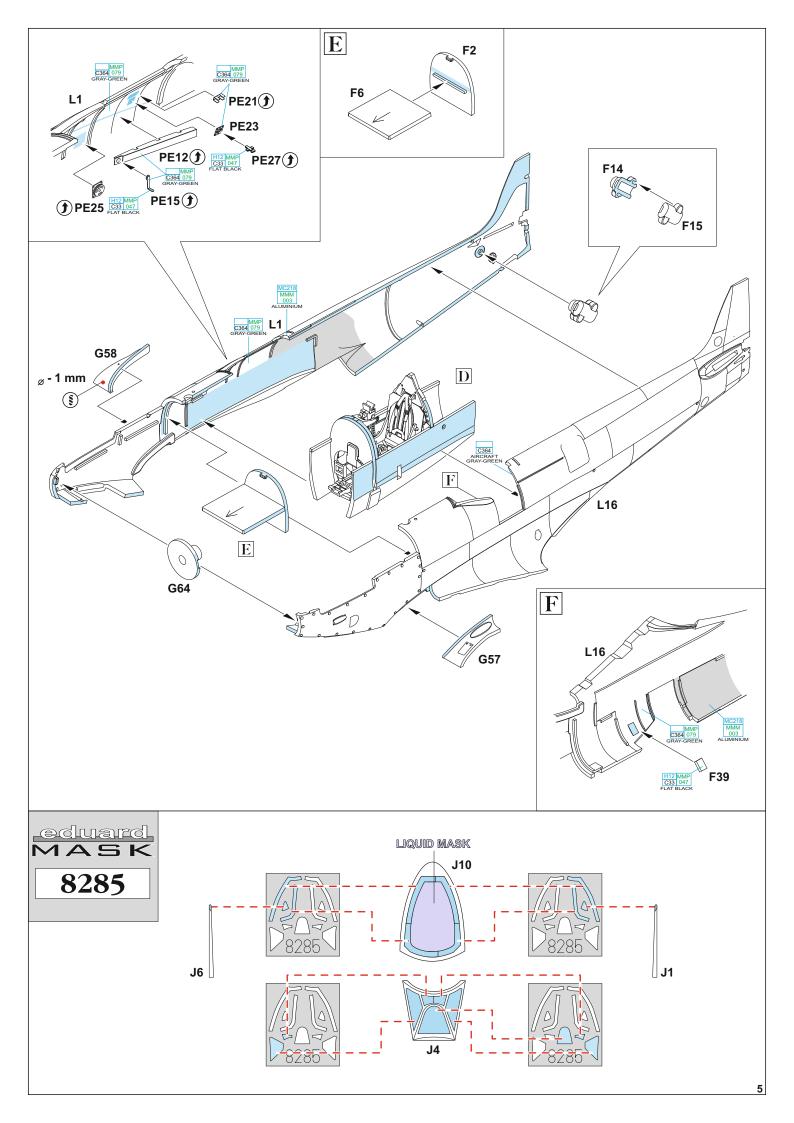
Due to the high demand for Merlin engines, it was decided to use for the Mk.IX also the production capacities of the American Packard company, which was already producing these engines under license. The American version of the Merlin 66 was designated 266 and differed in some details from the original. These necessitated some changes, such as a wider engine top cover. Due to the need to use different tools for maintenance as well as for differences in design, the aircraft with Packard engine were designated Mk.XVI and were intended for low and medium altitude operations, which was reflected by the selection of the Packard 266 and also by shortened wing tips. The Mk.XVI was produced with both a conventional fuselage, as well as with lowered rear part and bubble canopy. These aircraft had a reduced rear fuselage tank, its volume dropped from 75 gal to 66 gal.

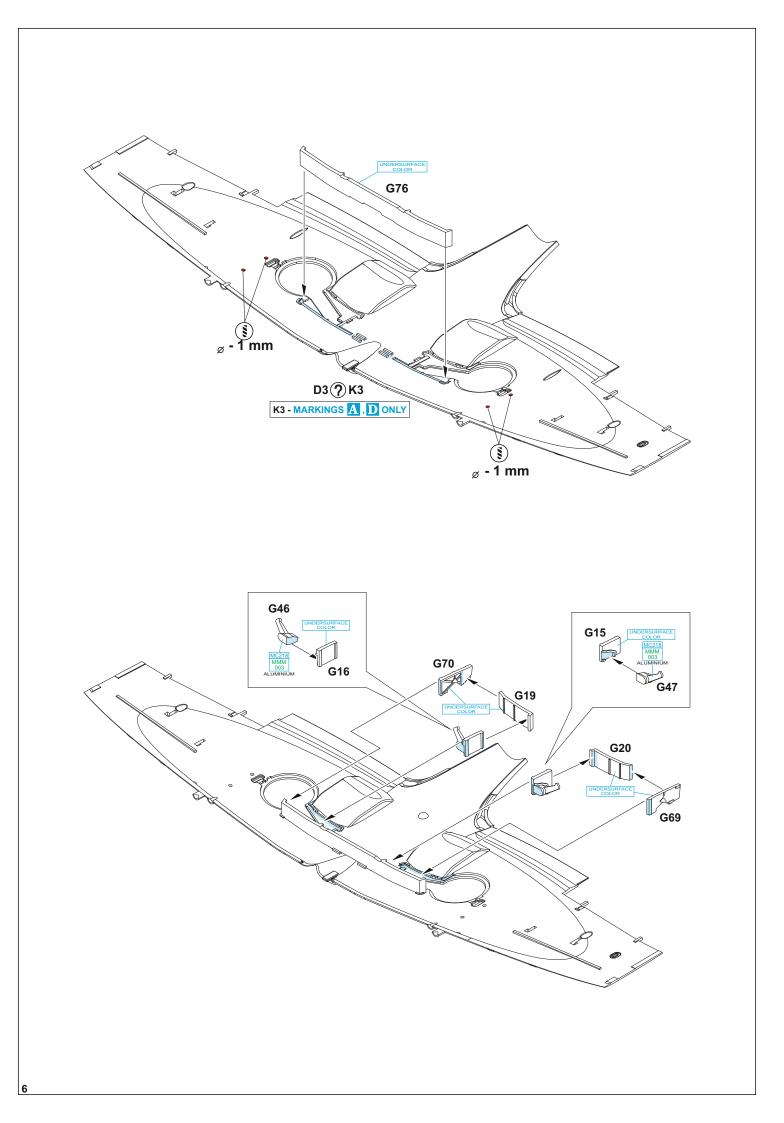
For ground attacks, for which they were primarily intended, Mk.XVIs were fitted with two underwing racks (for two bombs up to 250 lb) and one under fuselage (for one bomb up to 500 lb). Most of the Mk.XVI Spitfires produced had a wing with armament consisting of two 20mm Hispano II guns and two 12.7mm Browning machine guns (designated as the Type E wing). A total of 1,054 "sixteeners" were produced, all coming off the line at Castle Bromwich.

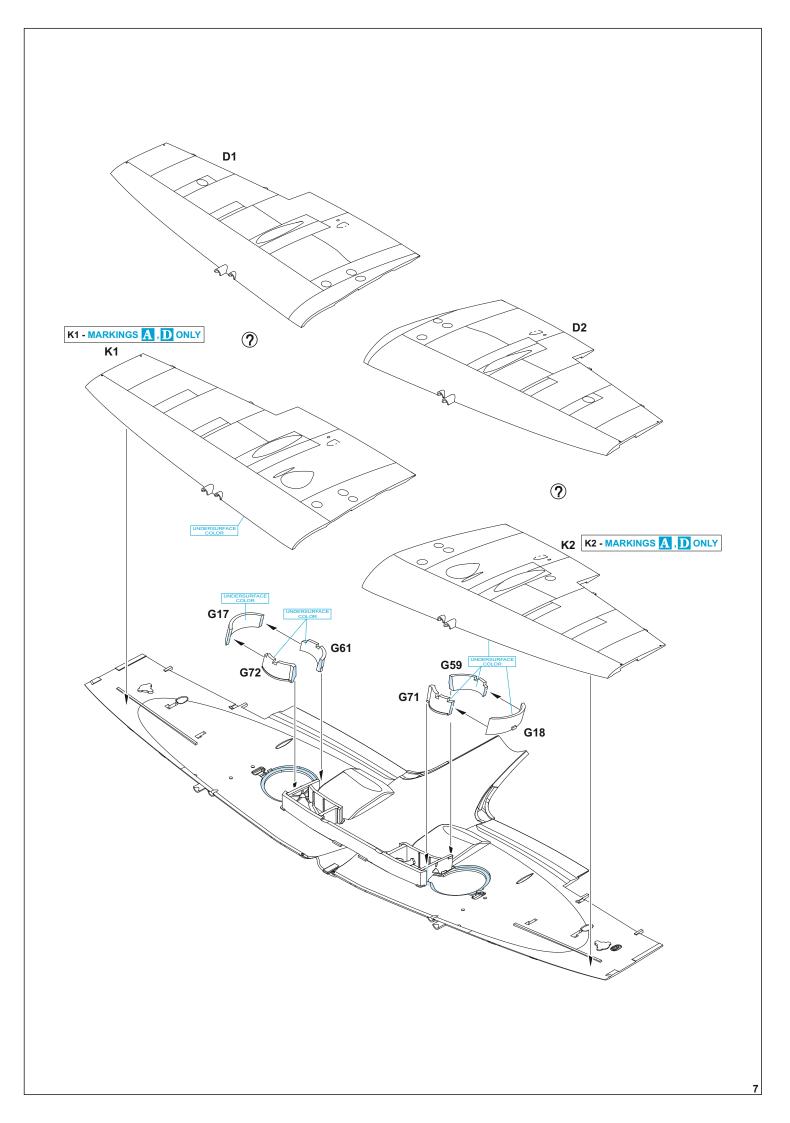


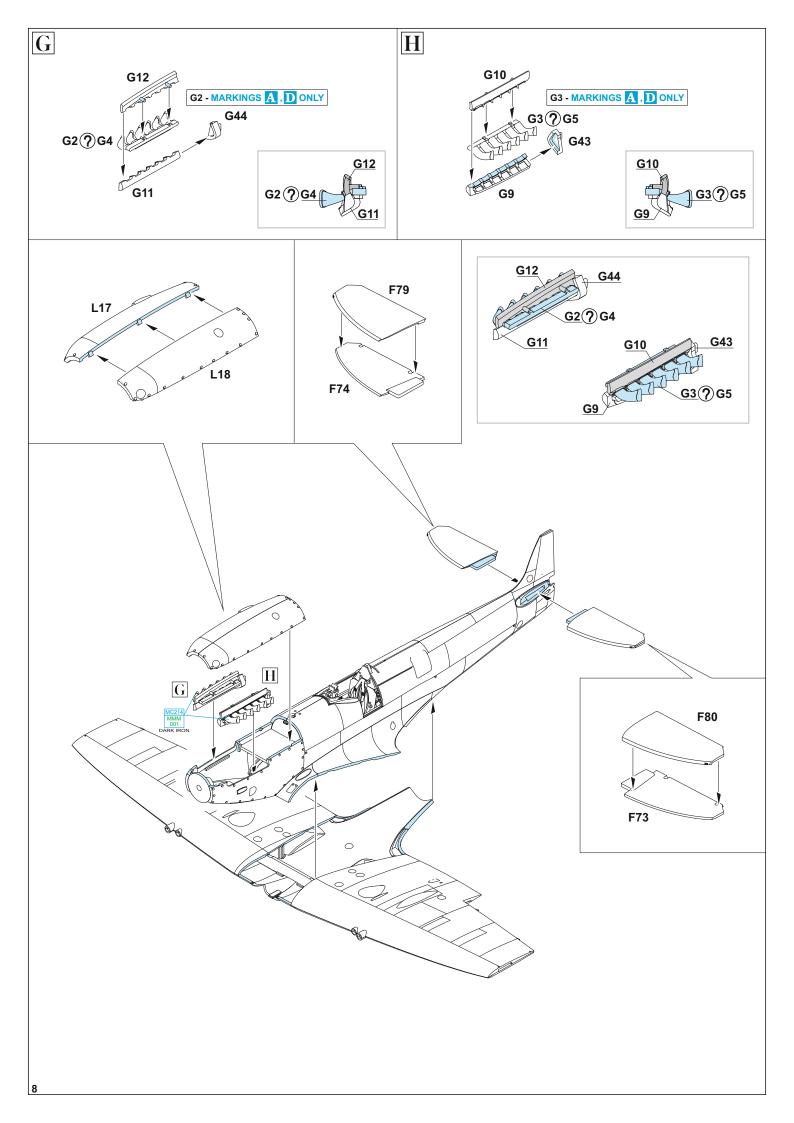


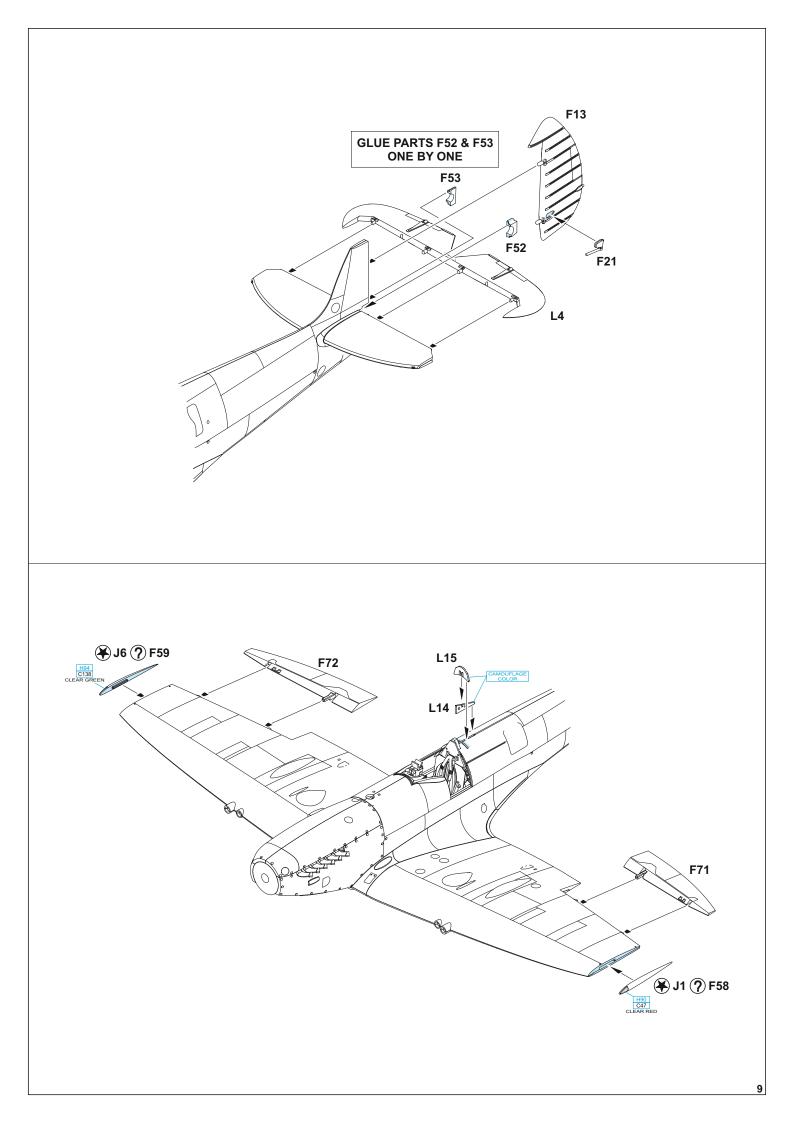


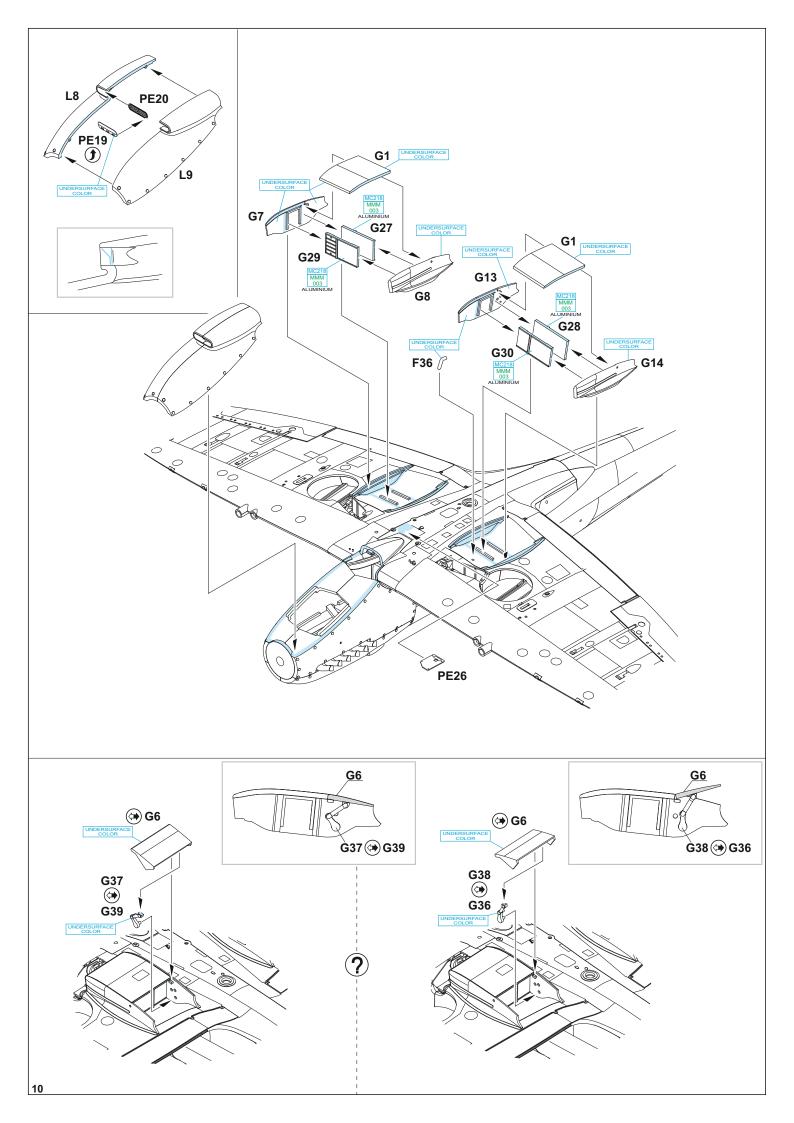


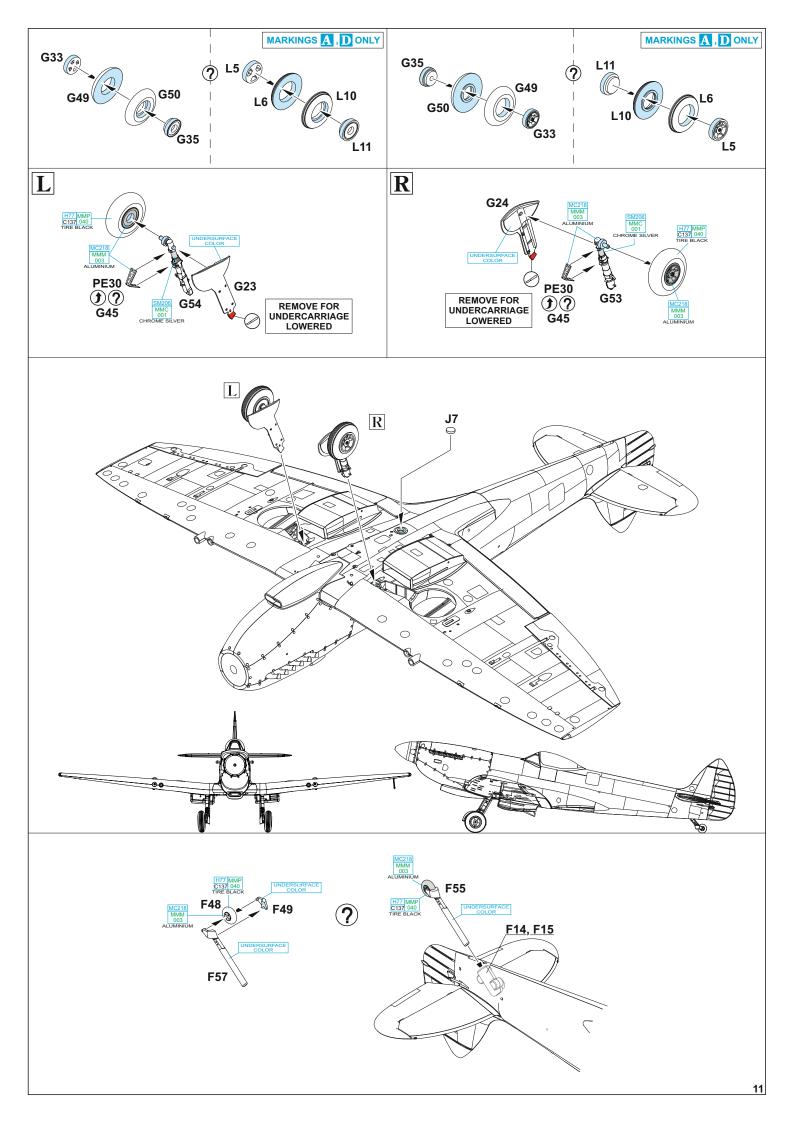


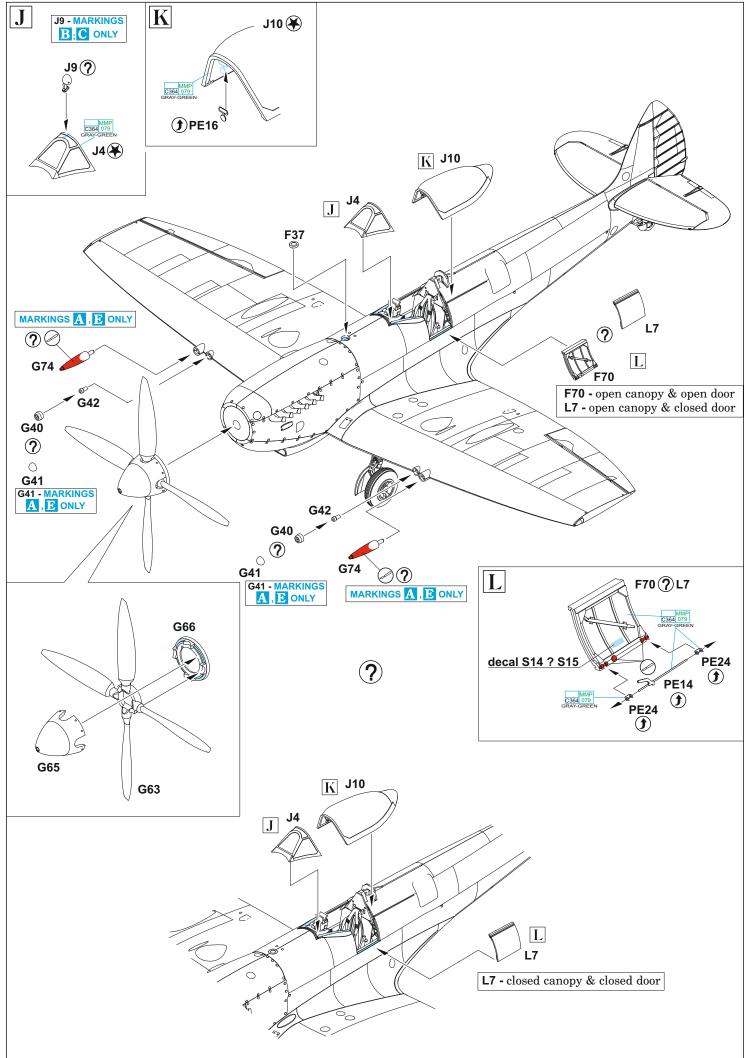


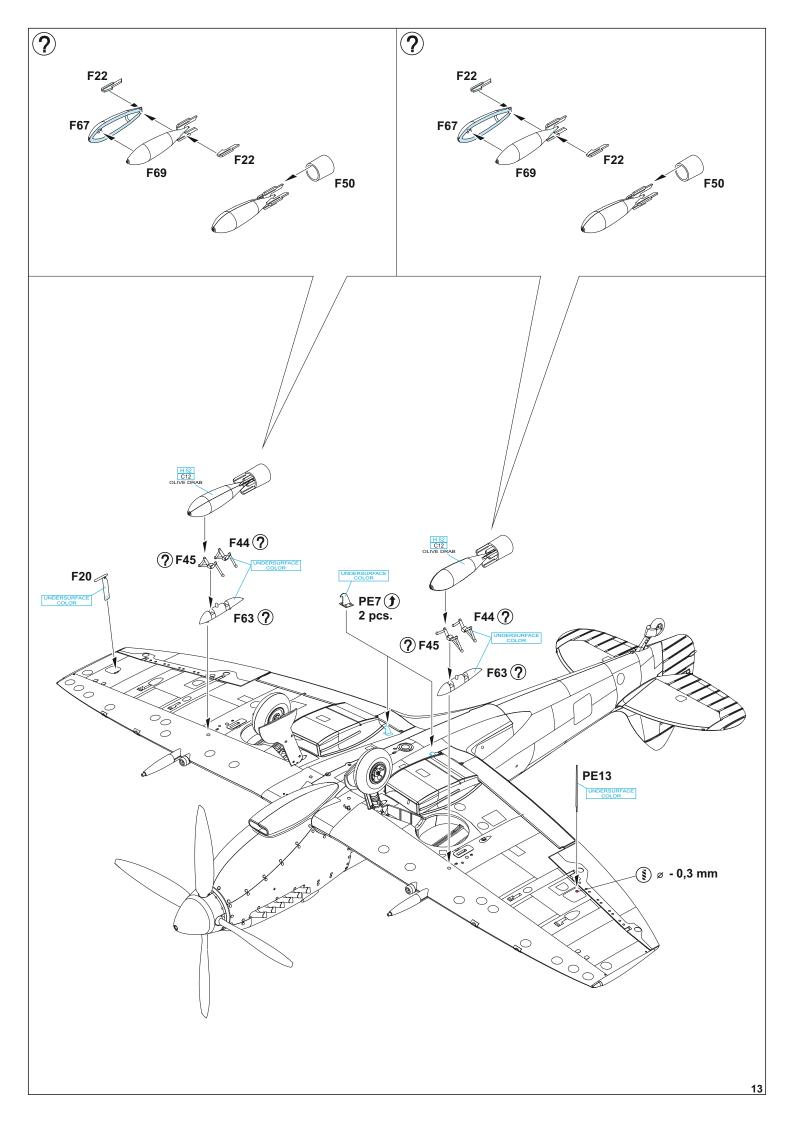




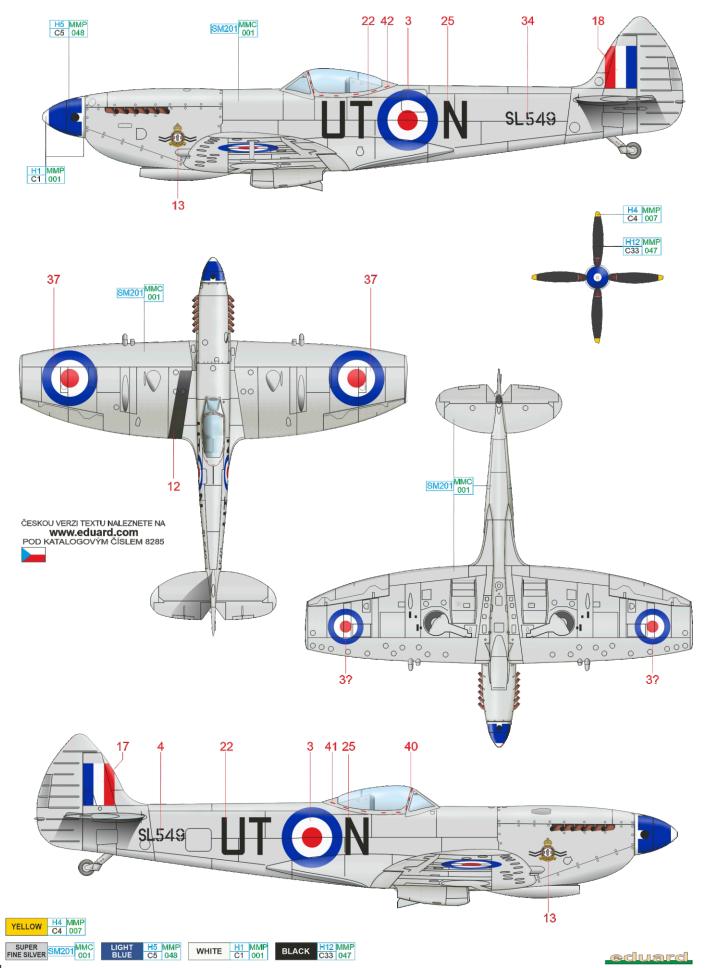






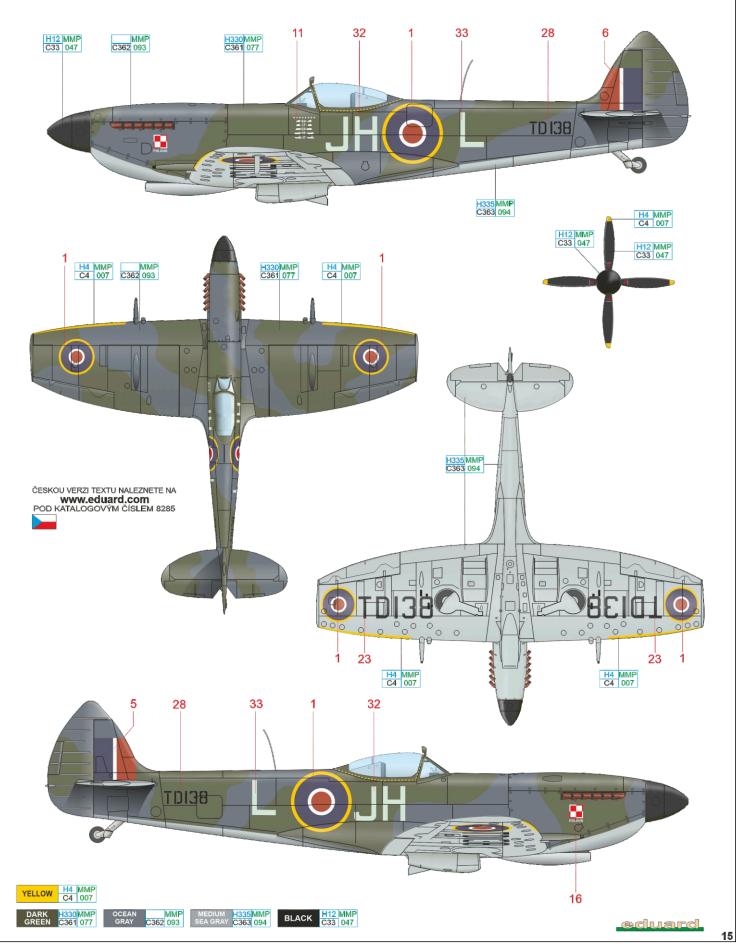


SL549 was overpainted in Aluminium. The national insignia matched regulations issued in May 1947. Close examination of photos reveals that the roundels and serial number were not painted on the lower surface of the wings.



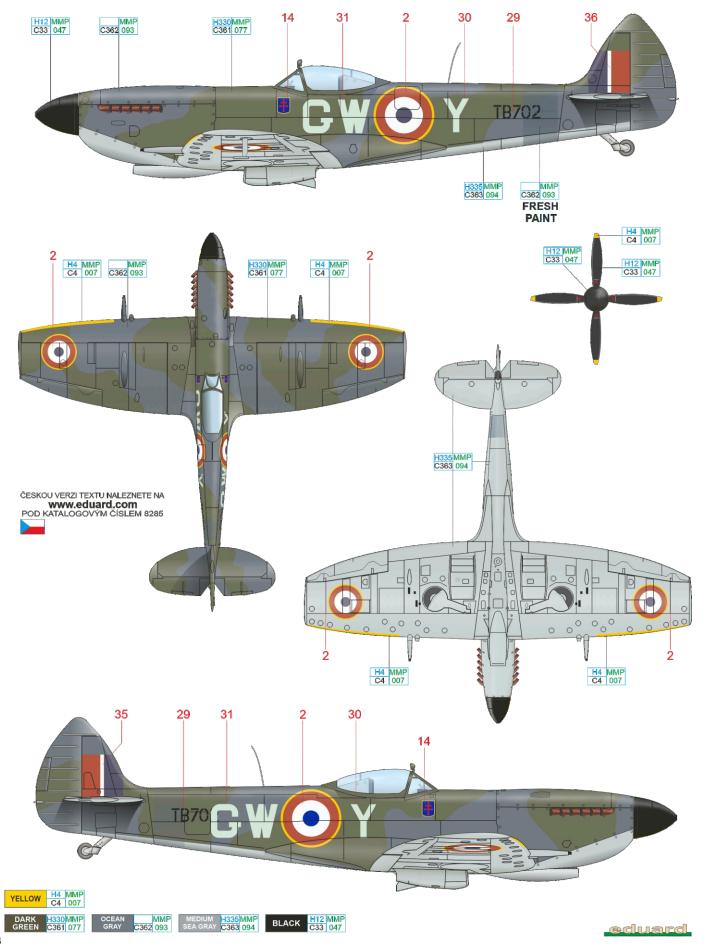
B TD138, No. 317 (Polish) Squadron RAF, Ahlhorn Air Base, Germany, spring – summer 1946

TD138, previously operated by Nos. 345, 340 and 127 Squadrons, was assigned to No. 317 (Polish) Squadron in late May 1945. It was one of two Spitfires that were planned to be flown in a military parade in October 1945 in Warsaw. Soviet representatives didn't want UK based Polish pilots to fly the aircraft in post-war Poland, so these Spitfires were flown by British pilots on a journey from Celle in Germany to Warszaw. Unfortunately, unpleasant weather forced the pilots to land in Poznan. More discord with the Soviets caused both of the Spitfires to head back to Germany instead of the Polish capital. The scoreboard below the windscreen is fictitious and was intended to stress the combat deployment of Polish flyers against Nazi Germany. TD138 also wore the code letters JH M for a time.

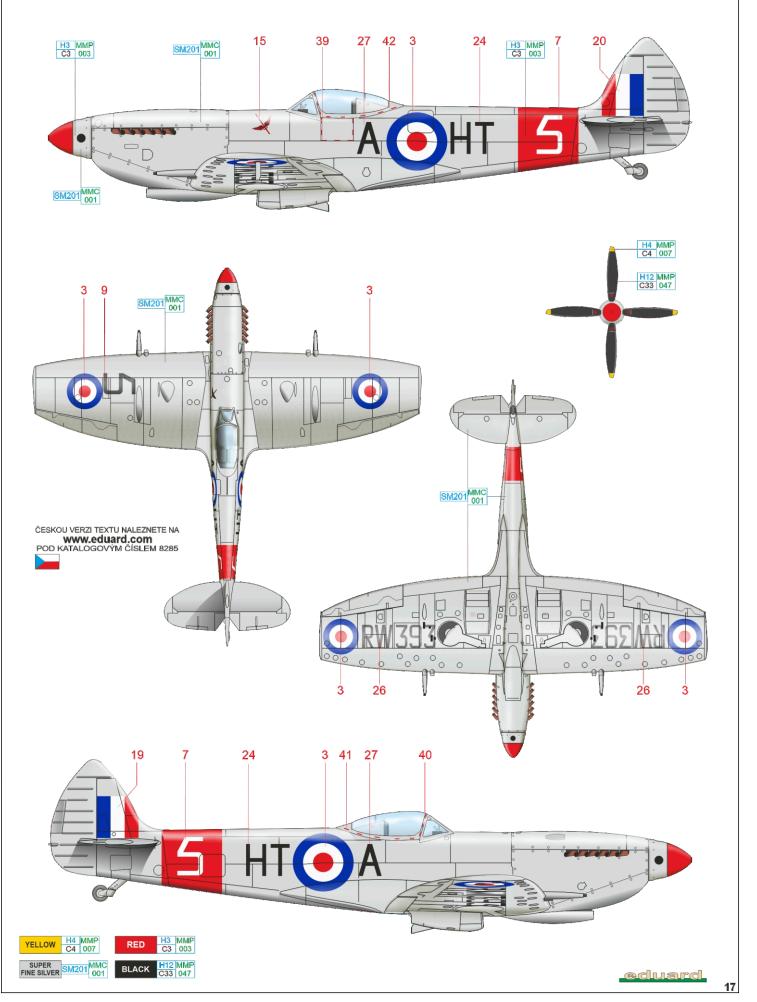


C TB702, Cpt. P. G. J. Albertin, No. 340 (Free French)Squadron RAF, B105 Airfield (Lingen/Drope), Germany, May 1945

This aircraft was assigned to No. 340 (Free French) Squadron in late April 1945. The standard British roundels and fin flash were applied at that time. The French national insignia were not added until mid-May. Later on, in 1951, the aircraft was flown by No. 103 Flying Refresher School. It was written off after a cash in May 1954. TB702 was operated by No. 3 Civilian Anti-Aircraft Co-Operation Unit at that time. The Day Fighter scheme camouflage colors are applied, and the Sky band on the rear fuselage was overpainted with fresh (thus slightly darker) camouflage colors.

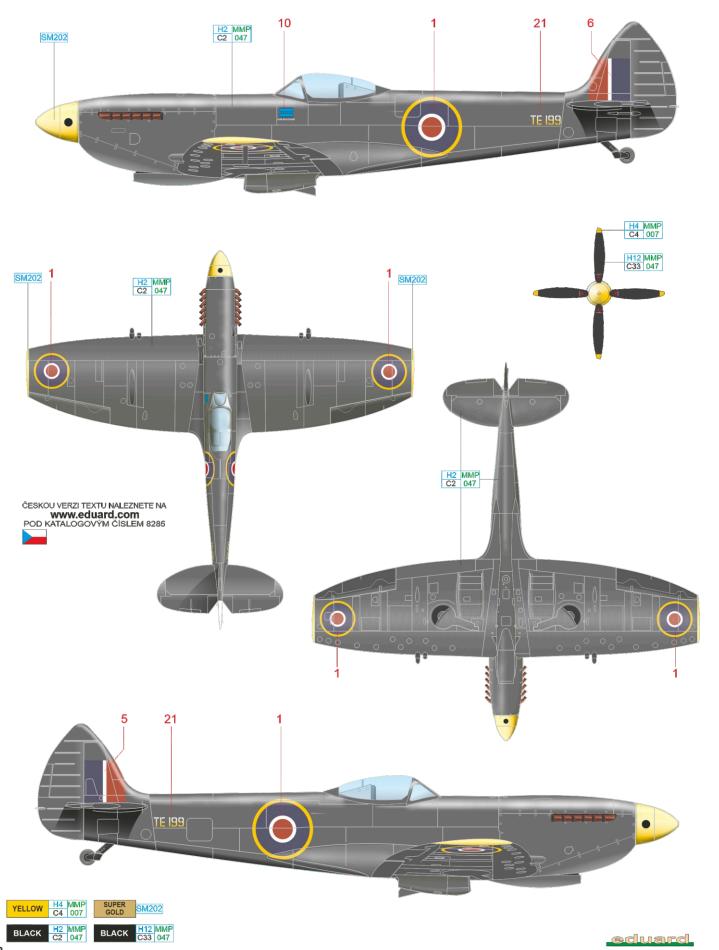


This aircraft took part in the Cooper Air Race of 1949. The competition for RAuxAF squadrons was named after W/Cdr Geoffrey Cooper, M.P. The winged sword painted in front of the windscreen is the No. 601 Squadron crest.



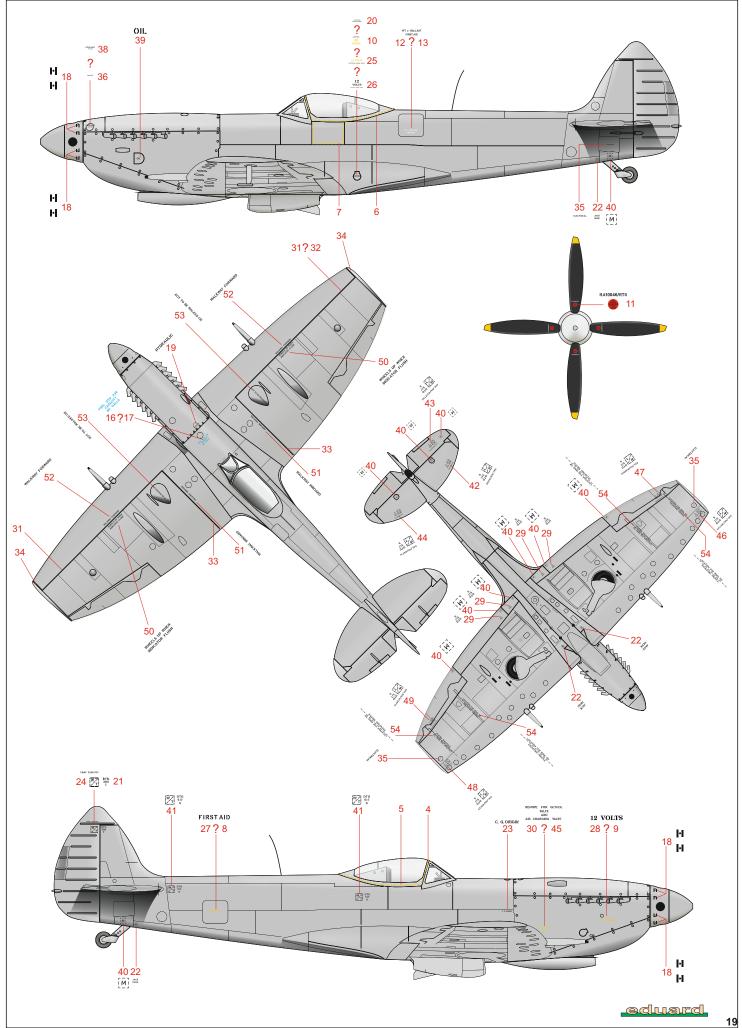
TE199, Air Officer Commanding, No. 21 Group RAF, Swindersby Air Base, Great Britain, 1948

This aircraft from No. 21 Group was painted gloss black. The spinner and wings tips were gold. The Group was subordinate to Flying Training Command. Note the Air Vice Marshall pennant under the windscreen. The hue of the national insignia colors seems to be quite light, though it may be the result of the overall dark appearance of the aircraft.



Spitfire Mk.XVI

STENCILING POSITIONS



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