## eduard

### 1/48 Scale Plastic Model Kit



# **ProfiPACK**

The Bell P-39 Airacobra was one of the best fighter aircraft the USAAF had at their disposal when entering the war. Although overshadowed by the P-51 or P-47 later, it was remarkable fighter, when used properly.

The P-39 Airacobra was developed by the Bell Aircraft Corporation in Buffalo, New York in the late 30's as an answer to the 1937 specification for a new high-altitude and heavily armed pursuit aircraft. The turbocharged Allison engine was intended to power the aircraft, which was required to reach at least 360 mph (580 km/h) at altitude, climbing to the 20,000 ft (6,100 m) in six minutes.

These demands were very challenging, and the Bell design team decided to take innovative approach with the engine mounted in the middle of the fuselage at the center of gravity. The propeller was driven through an outboard reduction gear by an extension shaft running under the cockpit floor. It also had unusual tricycle undercarriage and car-door entry to the cockpit on both sides.

#### Blow to the concept

The first XP-39 prototype conducted its maiden flight on April 6, 1939, in Dayton and reached maximum speed of 390 mph (628 km/h) at 20,000 ft (6,100 m). It took only five minutes to reach that height. With this performance, the new design surpassed the original demands, but stayed behind the proposal by Bell, stating 400 mph would be achieved. The prototype was powered by the Allison V-1710-17 fitted with turbocharger according to the original specifications, rated at 1,150 hp. The XP-39 proved also good maneuverability thanks its innovative concept of airframe, with its engine located in the center of gravity. The concept also allowed a long, slim nose well suited for installation of a powerful weaponry.

The USAAC ordered a test series of twelve YP-39s on April 27, but before the series was finished the project had been significantly changed. Because of troubles with proper turbocharger installation, the original engine was replaced by a less powerful Alison V-1710-37 using one-stage, one-speed supercharger only. The engine developed just 1090 hp and, more to it, it was losing its power at the higher levels. This was a major blow to the promising fighter.

The YP-39 had a propeller-axis Oldsmobile T-9 cal. 37 mm cannon, two .50 caliber (12.7 mm) machine guns and two .30 caliber (7.62 mm) machine guns mounted in the nose. The pilot seat got armor and the weight of the aircraft rose to 3,160 kg against 2,820 kg of the XP-39 prototype. Due to it the maximum speed fell to 366 mph (590 km/h) and climbing to 6,100 m took 7.5 min now.

Although the excellent prototype flight performances were decreased, the USAAC kept its interest and ordered 80 production P-39s marked as the C variant. The first 20 aircraft of the order were supplied as standard P-39C, while the remaining 60 were finished as P-39Ds, with the two .30 caliber (7.62 mm) machine guns moved to the wings and two more of these added. The USAAC received its first P-39Ds in February 1941, and the next order for 344 P-39Ds was placed subsequently.

#### RAF disappointment

The RAF ordered 675 P-39s in April 1940. British Airacobras Mk.I were produced as the P-39D standard, but with the engine-axis T-9 cannon replaced with a British Hispano M1 20 mm weapon, while the wing machine guns were replaced with 7.7 mm Brownings. The first Airacobra Mk.Is were delivered in July 1941, but the RAF was disappointed. They were not suitable for service in the European theatre due to their less than average performance at high altitude.

In October 1941, four Mk.Is were tested by No. 601 Squadron in the ground attack role over France, but they did not perform well in this role. Airacobra was then withdrawn from service with RAF and 212 of them were sent to the Soviet Union.

#### **Evolution of the Airacobra**

The next production version after the P-39D were 229 examples of the P-39F series, followed by the P-39K series (210 aircraft), P-39L (250 aircraft), P-39M (240 aircraft) and P-39N (2095 aircraft). All these variants were very similar, although using various versions of the Allison engine and different propellers. The final version of the Bell's innovative design was designated P-39Q and was powered by the Allison V-1710-85 engine rated at 1420 hp. The installation of two .50 caliber (12.7 mm) machine guns in underwing pods instead of the four .30 caliber (7.62 mm) wing mounted ones was another difference to the previous versions.

#### Eastern success

Most of the 4905 "Q" series aircraft were sent to Soviet Union, alongside other versions, including P-34Ns. There they were used with great success, as the aerial combat took place at lower altitudes, so the absence of turbocharger was not so harmful to the aircraft's performance. In total, 4758 Airacobras were sent to Russia, where they were very popular also for their solid metal airframe and heavy weapons, gaining the nickname "Groznaya boyevaya mashina" (frightening combat machine).

Production of P-39Q was ceased in August 1944, after the final Airacobra No. 9558, had been finished. The USAAF employed Airacobras extensively until August 1944, when they were withdrawn from frontline service. The USAAF was using the largest quantity of Airacobras (2105 of all types) during February 1944. They served in the Pacific theatre as well as in North Africa and Italy.

The French Air Force used 165 Airacobras, and P-39s served also with the Australian RAAF, with the Italian AF and also with the Portuguese AF.

#### The kit: P-39N Airacobra

The first mass-produced version of the Airacobra was the P-39N. Compared to the previous P-39M, the gear ratio in the reduction gear was changed. The first production run of 500 had no production block designation and was powered by a 1200 hp Allison V-1710-85 engine. Of these, the first 166 units had the same fuel capacity as the previous version, but it was then reduced from 120 US gal (454 l) to 86 US gal (325.5 l) by removing three fuel cells as part of the weight saving measures. The shortening of the endurance and range of already somehow "short legged" Airacobra led to the demand for field kits allowing installation of these fuel cells. For production block N-1, a larger diameter propeller was installed and the center of gravity was altered. Blocks N-2 and N-3 were photo reconnaissance versions, and the final N-5 block differed from the N-1 primarily by the installation of an armor plate behind the pilot instead of armored glass. Also, a new type of radio was installed. Some pilots had either the outboard wing guns or all four of them removed to save weight. The firepower of the two .50 machine guns and the 37 mm cannon was still sufficient.

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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 \* 記号の説明

?
OPTIONAL

**VOLBA** 

**J** 

OHNOUT

SAND

**BROUSIT** 

OPEN HOLE VYVRTAT OTVOR

SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ REMOVE

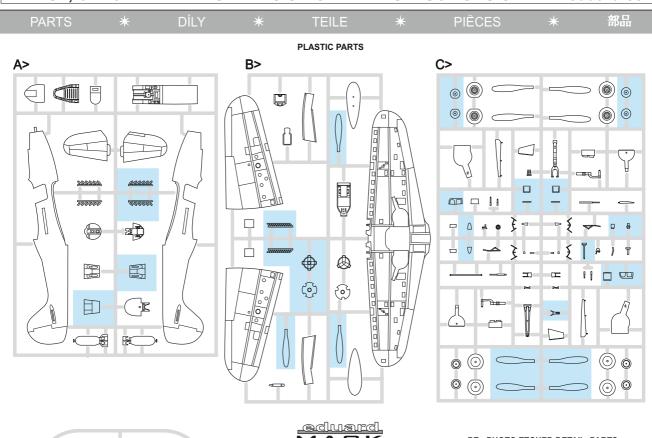
**ODŘÍZNOUT** 

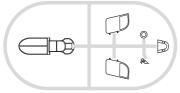
REVERSE SIDE

VERSE SIDE APPLY EDUARD MASK OTOČIT AND PAINT POUŽÍT EDUARD MASK NABARVIT

注意

### PLEASE, CHECK THE LATEST VERSION OF THE INSTRUCTIONS ON www.eduard.com







#### PE - PHOTO ETCHED DETAIL PARTS

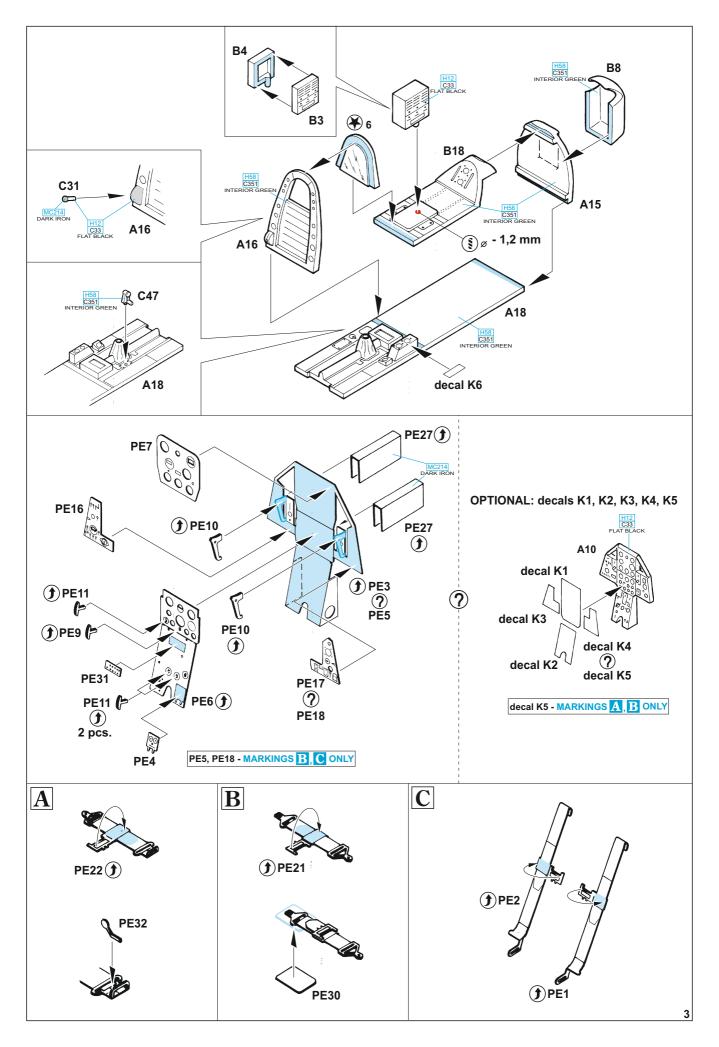


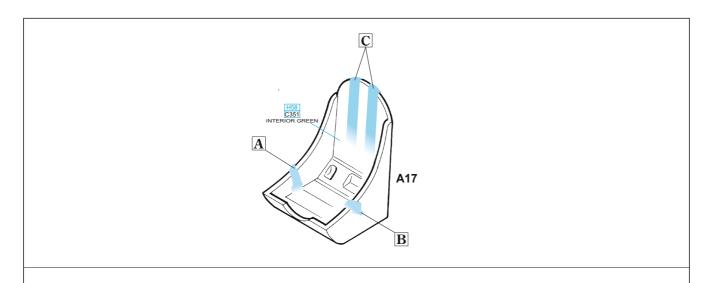
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部

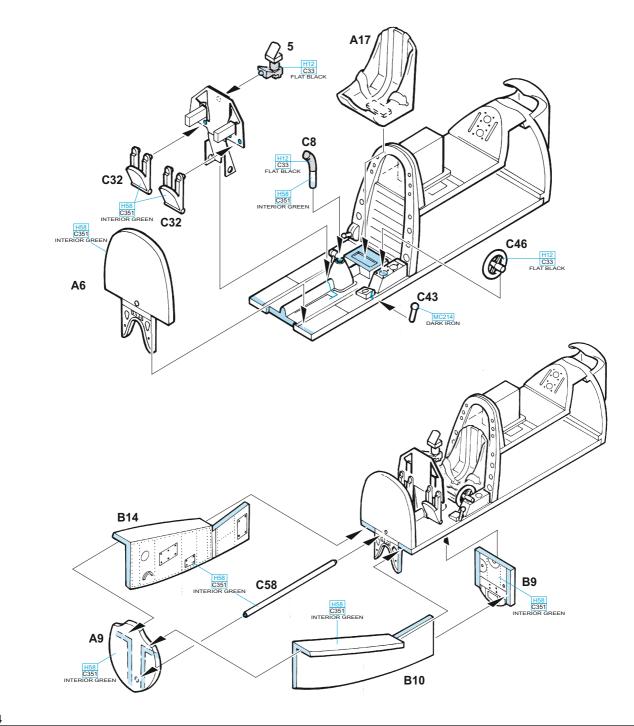
COLOURS \* BARVY \* FARBEN \* PEINTURE \* 色

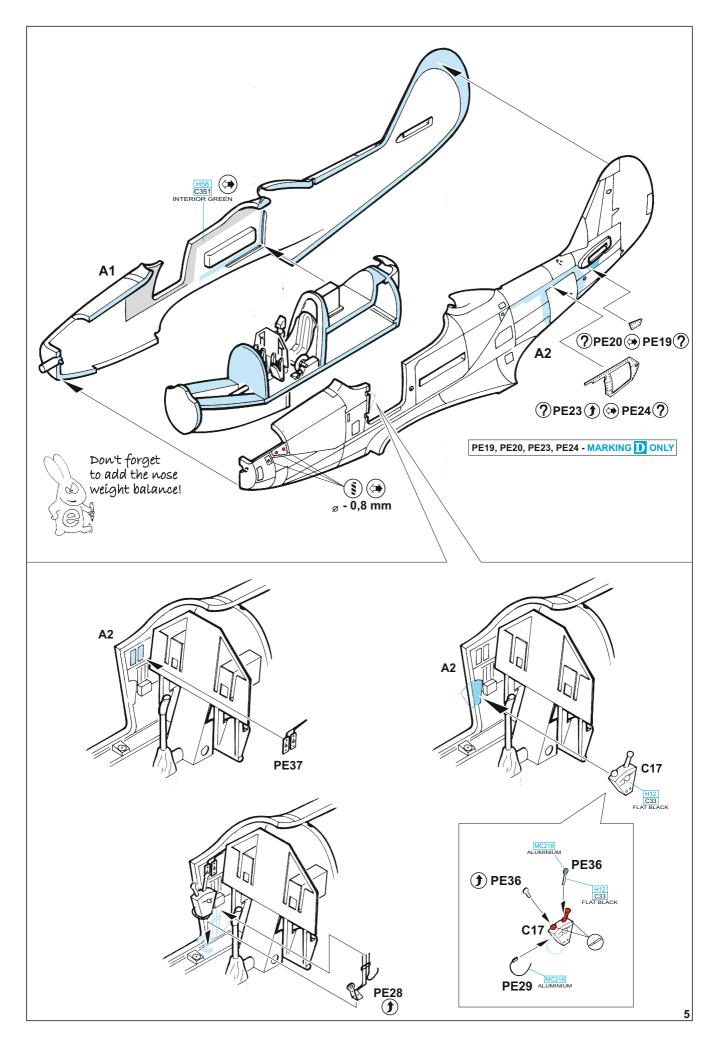
	GSi Creos (GUNZE)		
	AQUEOUS	Mr.COLOR	
	H8	C8	SILVER
	H12	C33	FLAT BLACK
	H25	C34	SKY BLUE
	H26	C66	BRIGHT GREEN
	H51	C11	LIGHT GULL GRAY
	H52	C12	OLIVE DRAB
	H53	C13	NEUTRAL GRAY
	H58	C351	INTERIOR GREEN
ı	H303	C303	GREEN

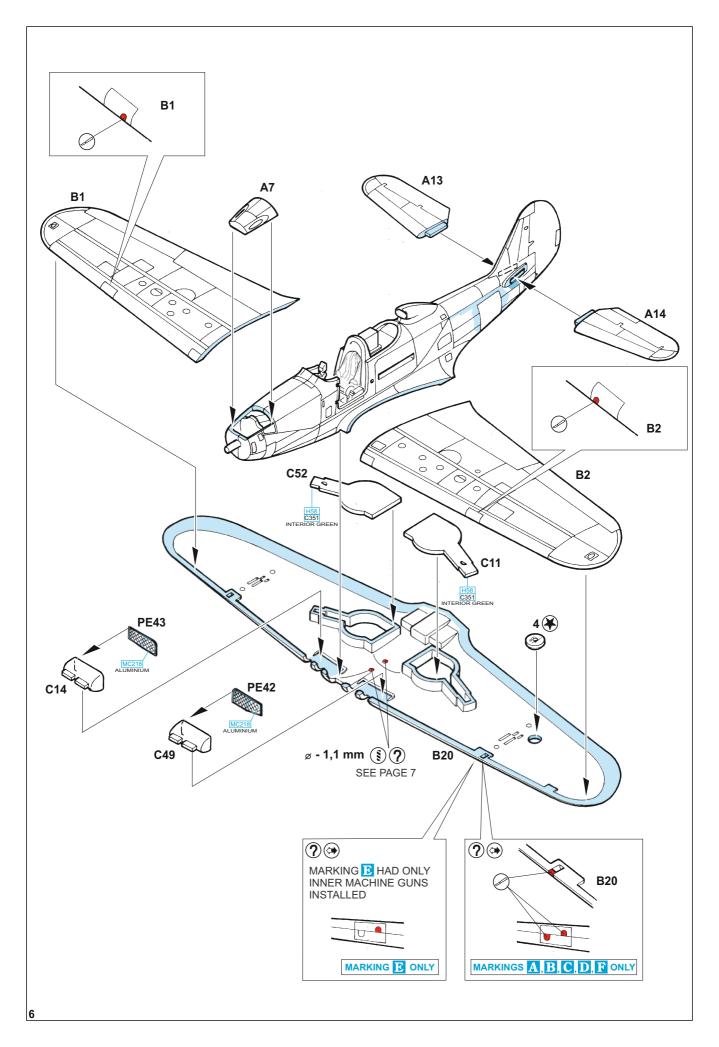
AQUEOUS	Mr.COLOR	
H327	C327	RED
H328	C328	BLUE
H329	C329	YELLOW
H77	C137	TIRE BLACK
H316	C316	WHITE
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER
Mr.METAL COLOR MC214		
		DARK IRON
MC218		ALUMINIUM

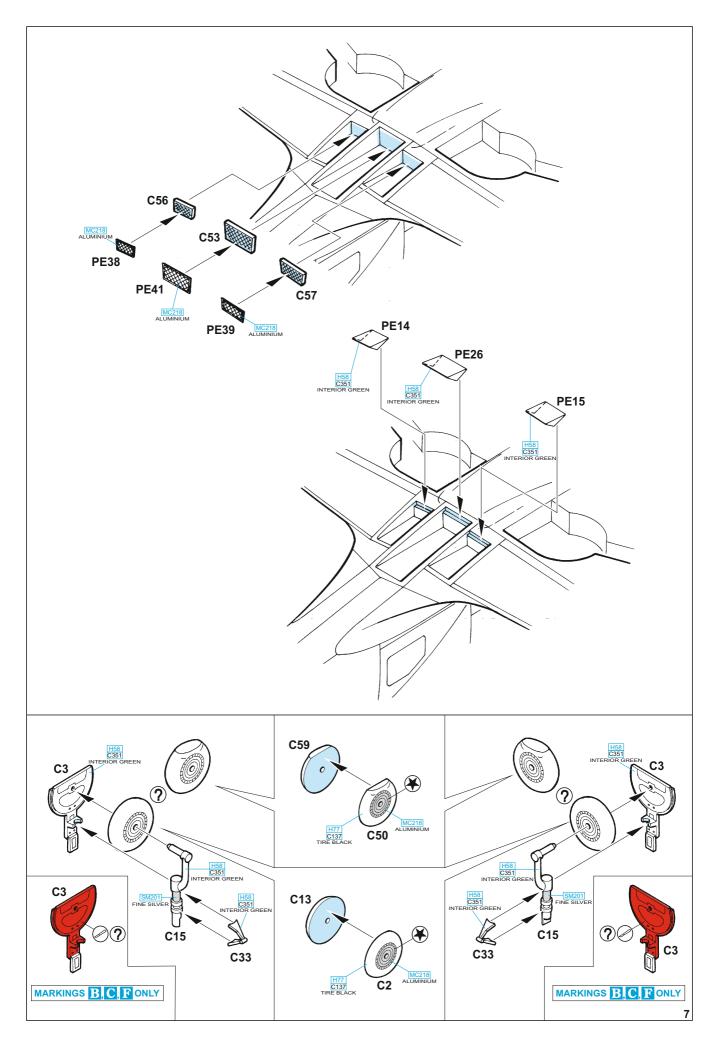


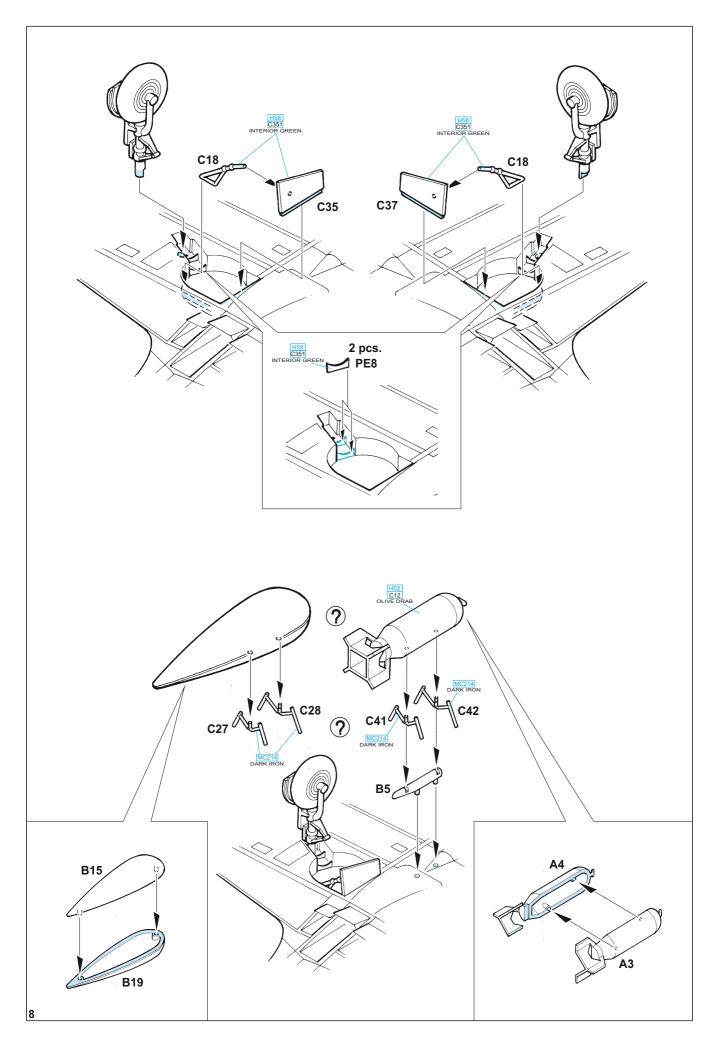


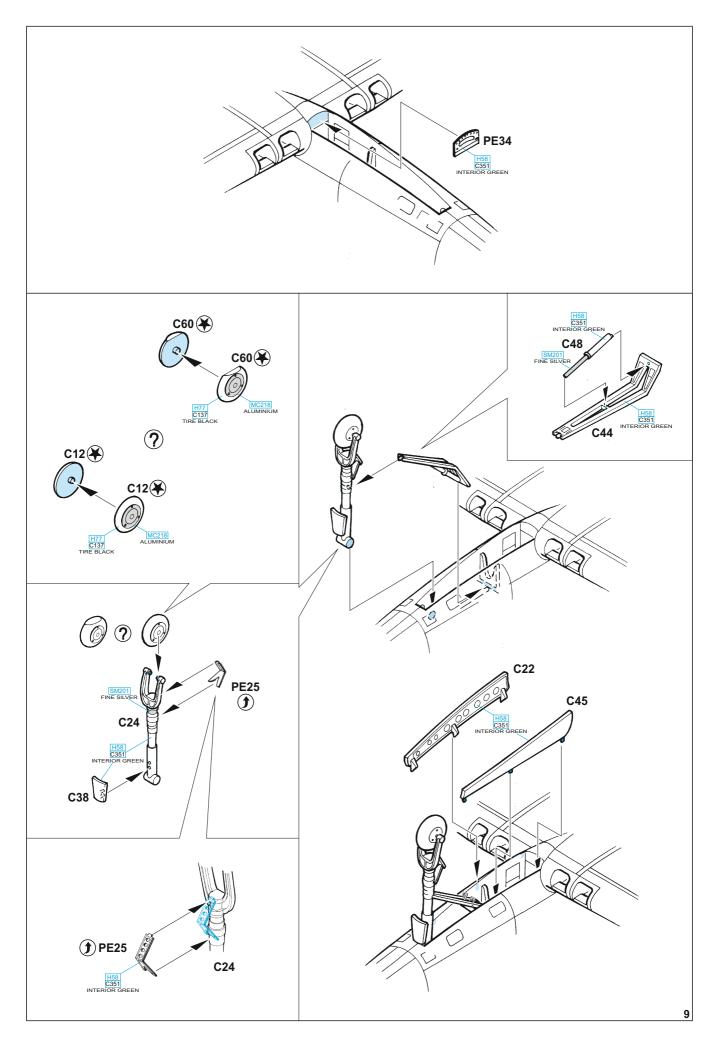


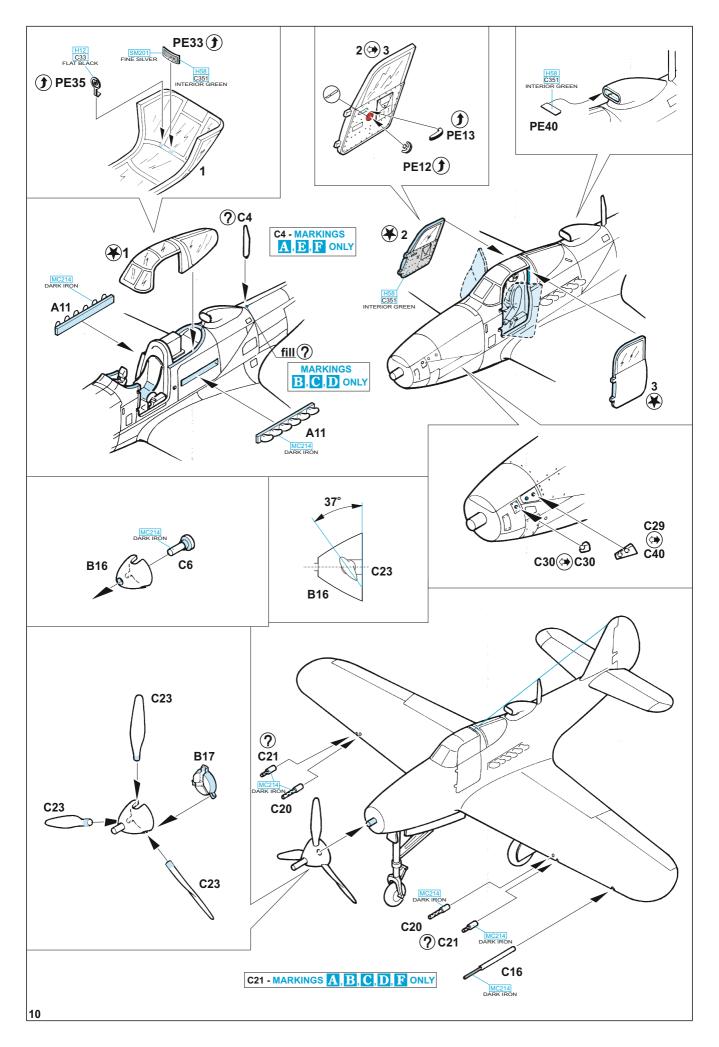


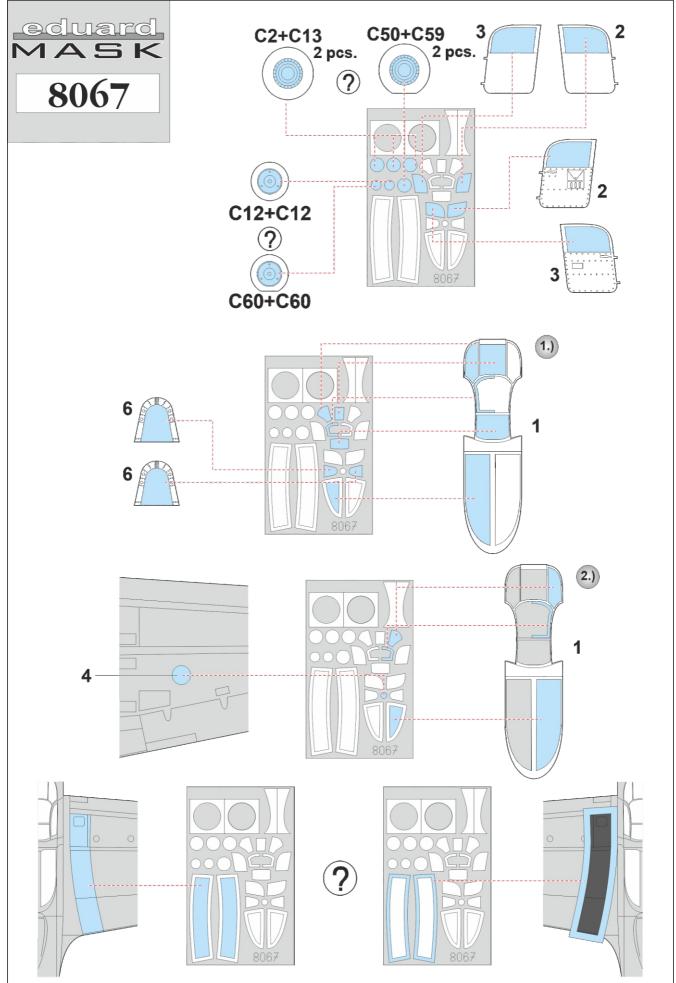






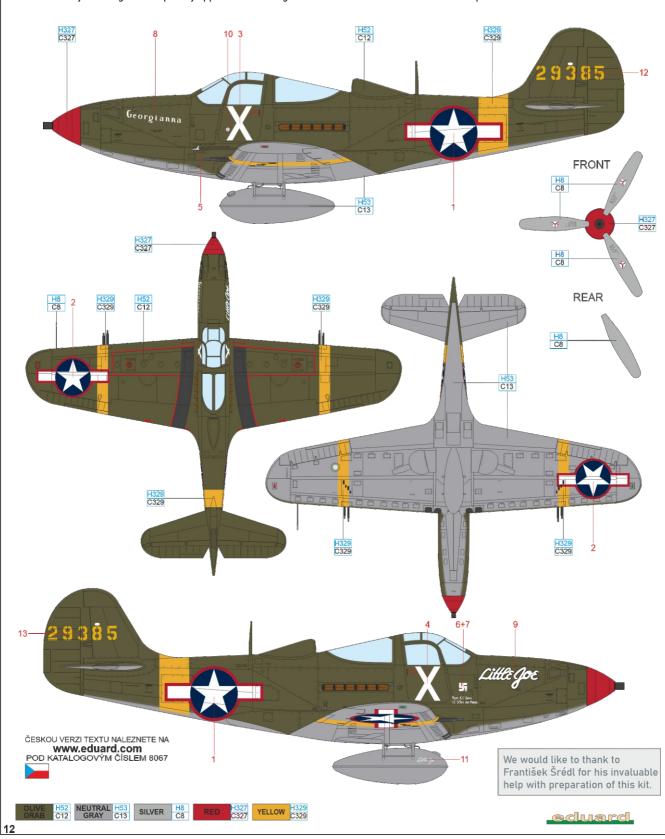






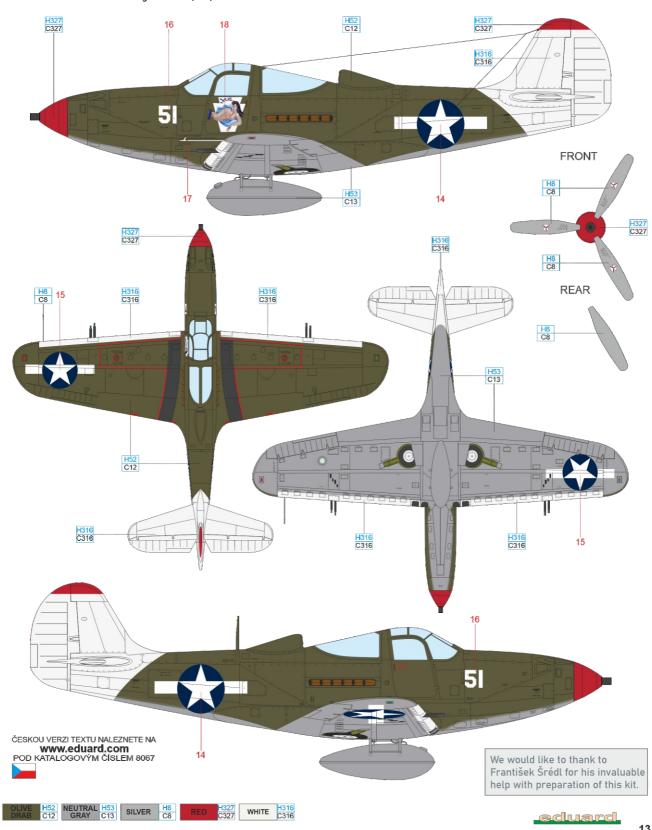
### A P-39N-1, 42-9385, Lt. Kirby F. Smith, 346<sup>th</sup> FS, 350<sup>th</sup> FG, Reghaia, Algeria, September 1943

On August 6, the Luftwaffe lost two Ju 88 reconnaissance aircraft in the Mediterranean. One was conducting weather reconnaissance, the other long-range reconnaissance. Both were Ju 88D-1s and the victim of K. F. Smith and his Airacobra was most likely the aircraft of Fw. Heinz Pracht of 3.(F)/33 (WNr. 143073, 8H+LL). The other lost Ju 88D-1 belonged to Wekusta 26 (weather reconnaissance squadron), based at Frosinone, more than 600 km from the site of the shoot-down, which occurred about 160 km north of Cherchell on the African coast. The German reconnaissance aircraft were operating at an altitude of about 30,000 feet and so each squadron of 350<sup>th</sup> FG received pair of P-38s to intercept these high-flying enemies. On that August 6, however, Smith had to climb to the high-flying target with a breathless Airacobra as well as his wingman, F/O Harold M. Simmonds. Shots from the 37mm cannon nearly stopped the Airacobra in mid-air as it fluttered at the limit of maximum range. The fire, however, sent the enemy to the ground, or, better to say, to the water. A swastika-style kill sign subsequently appeared on the right side of Smith's aircraft under the cockpit.



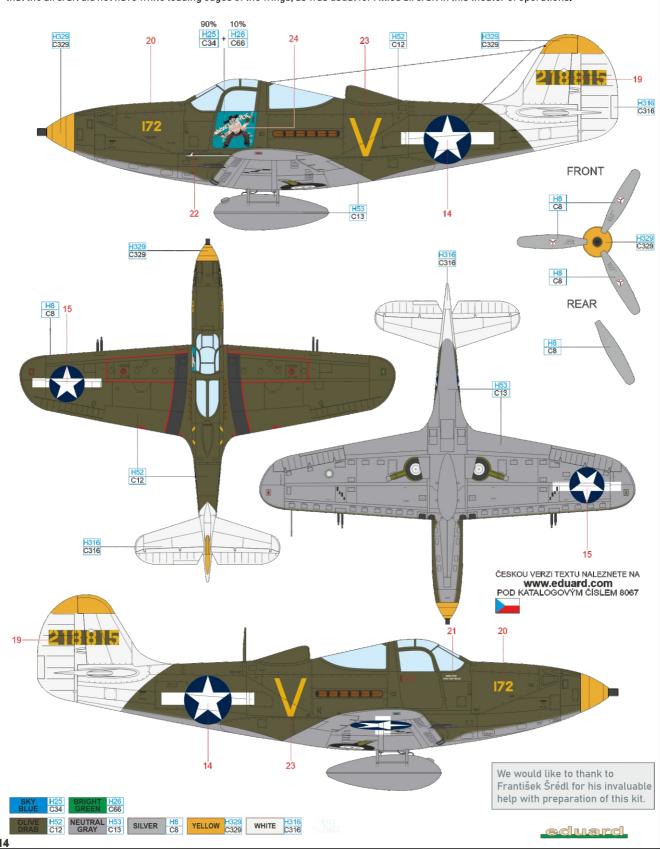
### P-39N-5, 42-18810, 40<sup>th</sup> FS, 35<sup>th</sup> FG, Nazdab, New Guinea, fall 1943

USAAF and RAAF single-engine fighter aircraft operating in New Guinea from the second half of 1943 onward carried white tail surfaces, usually in combination with white painted wing leading edges. Both intended as identification markings of their own aircraft. The 40th FS had been flying Airacobras since the summer of 1942, when the squadron was tasked with the defense of Port Moresby harbour. From December 1943, these were gradually replaced by P-47 Thunderbolts. During their spell with Airacobras, the pilots of the 40th FS recorded a total of 51 enemy aircraft destroyed, which was the highest score achieved by a squadron armed with P-39/P-400 aircraft. Unlike the sister 41st FS, paintings on the doors of the 40th FS were rare. The door with painting of miss Julie was also retrofitted on the No. 51 aircraft. Thus, the same aircraft is documented both with and without this painting. The painted door was originally attached to the Airacobra serial number 42-18802 from the 41st FS, which was an aircraft purchased from a fund-raising campaign organized by the students of Union - Endicott High School (N.Y.).



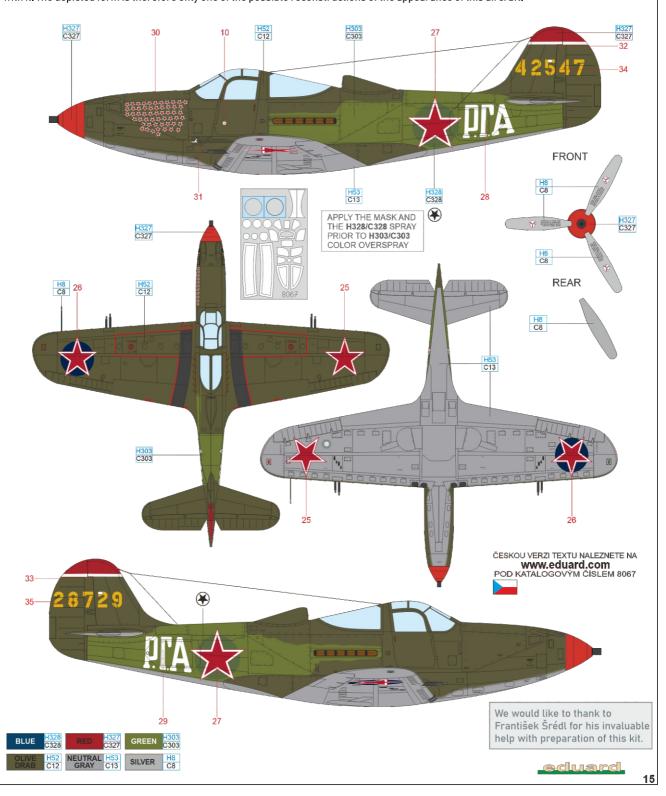
## P-39N-5, 42-18815, Lt. Walter A. Hymovitch, 41st FS, 35th FG, Nadzab, New Guinea, fall 1943

On November 26, the last combat of Airacobras of the 35<sup>th</sup> FG with Japanese aircraft occurred. Pilots of the 40<sup>th</sup> and 41<sup>st</sup> FS scored seven kills certain and six more probable without losses. During a morning patrol over Finschhafen, a formation of four Boomerangs covered by three Airacobras from the 41<sup>st</sup> FS clashed with a group of Ki-48 Lily bombers escorted by more than twenty Ki-43 Oscar fighters. In defending the Boomerangs, the 41<sup>st</sup> FS pilots shot down four Oscars, with a fifth kill only recorded as probable. One of the kills was credited to Lt. Walter A. Hymovitch. A typical feature of the 41<sup>st</sup> FS Airacobras was the painting applied to the left cockpit door. Lt. Hymovitch had a gunslinger figure named Whiskey Pete painted on it. The drawing appeared on the film footage, but it does not show the entire drawing. Our interpretation is therefore a reconstruction, especially of the lower part of the figure. It is clear, on the other hand, that the aircraft did not have white leading edges of the wings, as was usual for Allied aircraft in this theater of operations.



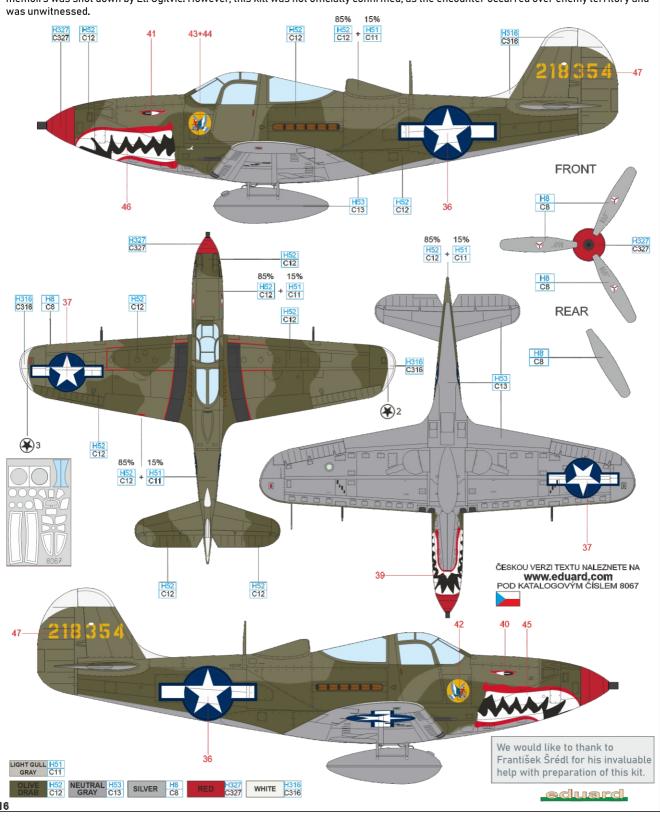
### P-39N, 42-8747, Guard Capt. Grigoryi A. Rechkalov, 16 GIAP, the Soviet Union, August 1944

The Airacobra flown by the second most successful Soviet and Allied fighter (61 kills) had serial number 42–8747. Aircraft from this delivery were taken over by the 16 GIAP (Guard Fighter Air Regiment) in mid-May 1943 and shortly after was Rechkalov awarded the first Gold Star of the Hero of the Soviet Union. The aircraft had the standard Olive Drab/Neutral Gray livery at the time, with white stars in the US markings painted red, supplemented with red stars on the upper right and lower left wing halves. However, there is no overall photo of the aircraft in this form. Only photographs from a later period are known. The aircraft already bore the symbols of at least 48 kills. In the photographs taken on August 19, 1944, it is seen as wearing number 42547 on the tail. According to Alexander Klubov's memoirs, the rear fuselage of Rechkalov's aircraft was deformed during aerial combat and was repaired with the use of the rear fuselage of another aircraft, namely 44–2529, which was a P–39Q. In doing so, the original rudder was used, resulting in a different number on each side of the tail. In some of the photos, the color of the rear part of the fuselage appears to be different from the rest, leading one to believe that it was partially repainted with Soviet AMT–4 color after the repair. But the original blue disc of the US insignia is quite clear which hangs some question marks over this, including whether the rear fuselage reinforcement (offered as etched parts PE 19, 20, 23, 24) was actually fitted at that time. Based on the distinct remnant of the US emblem, it appears it was not, other sources state Rechkalov's Airacobra was fitted with it. The depicted form is therefore only one of the possible reconstructions of the appearance of this aircraft.



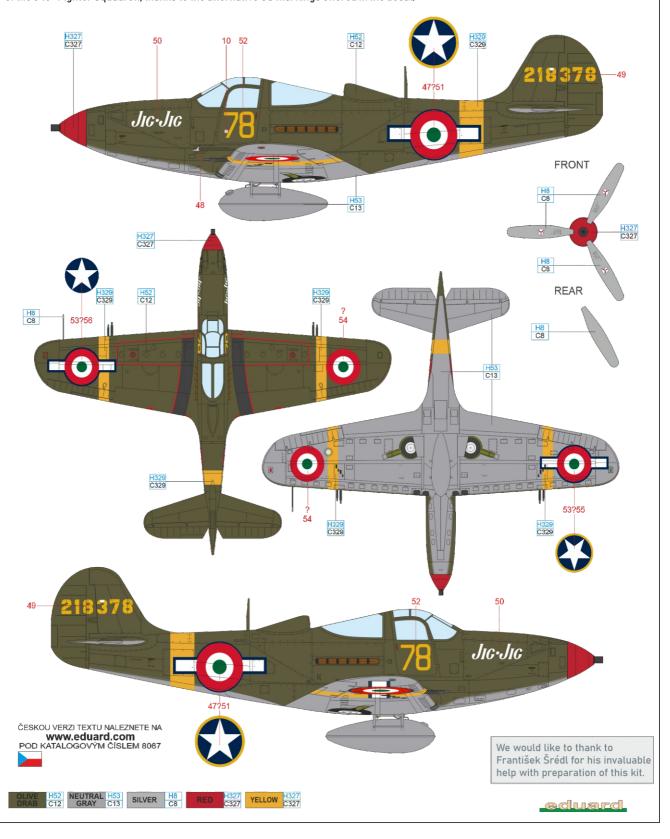
# P-39N-1, 42-18354, Maj. Charles F. Hoover, 345<sup>th</sup> FS, 350<sup>th</sup> FG, Ghisonaccia, Corsica, December 1943

Late in the summer of 1943, the aircraft of Capt. Charles E. Hoover, commander of the 345th FS/350th FG, was an Airacobra called "The Shark" after the shark's mouth painted on the nose. The markings were unusual for the 350th FG, not only because of the mouth, but also because of the absence of yellow stripes on the wings and aft fuselage. As presented, the aircraft had its armament reduced to a pair of machine guns in the wings. The Olive Drab color of the camouflage of the upper surfaces sported clearly visible an extensive repairs, giving the surface the appearance of two-tone camouflage. During the repairs, most of the stenciling disappeared under the new paint. The markings of the aircraft changed during service and two different forms are documented. The one shown here corresponds to the period in which the "Shark" operated from Ghisonaccia base in Corsica in early 1944. Below the Devilhawks emblem, two swastikas symbolizing kills were marked on the port side. It is not entirely clear whether these are Hoover's, as he shot down one Bf 109 in February 1943 and was involved in the probable destruction of Do 217 on October 21, 1943. But the two kill marks might also represent two victories achieved by the aircraft. One swastika would thus represent the aforementioned Do 217, the other the Me 410, which according to his memoirs was shot down by Lt. Ogilvie. However, this kill was not officially confirmed, as the encounter occurred over enemy territory and



### P-39N-1, 42-18378, 10° Gruppo, 4° Stormo, ACI (CoBAF), Lecce-Galatina, Italy, 1944

The Aviazione Cobelligerante Italiana (ACI) was the air force of the Southern Italian monarchist government of Pietro Badoglio, formed in October 1943 after the armistice concluded between Italy and the Allies at Cassibile. The ACI then used aircraft supplied by the USA and Great Britain in addition to Italian types. At the time of handover to ACI, this Airacobra had been operated approximately a year and a half by the 345th FS/350th FG USAAF in Africa and the Mediterranean. These worn out Airacobras were mainly used by the Italians to train pilots on the new equipment. The aircraft with the Jig-Jig insignia on the nose was photographed with other decommissioned P-39s from the 350th FG at an Italian airfield and was probably one of the first to receive Italian cockades, as the other aircraft in the picture are still in USAAF markings. The Italian cockades were applied directly to the original American markings at four positions, and two were added to the upper right and bottom left wing halves. At the same time, the yellow stripes marking the aircraft operating within the 12th AF USAAF were retained. The aircraft has not undergone any other changes and can therefore be built in its spring 1943 form, when it was still part of the 345th Fighter Squadron, thanks to the alternative US markings offered in the decal.



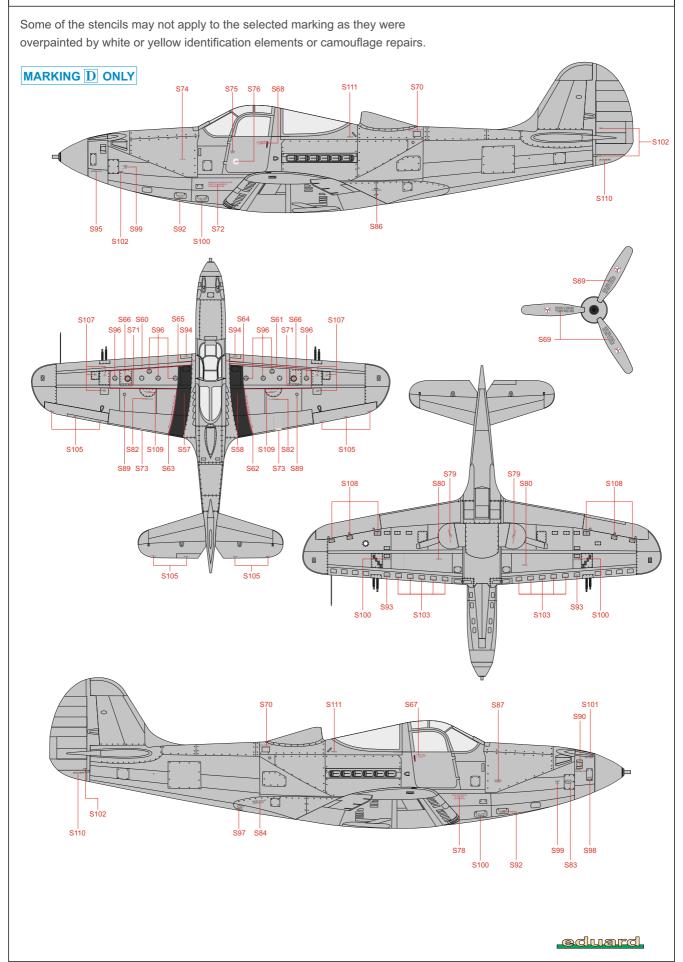
## P-39N Airacobra

## STENCILING POSITIONS

Some of the stencils may not apply to the selected marking as they were overpainted by white or yellow identification elements or camouflage repairs. S10 S1 S12 S13 S29 S31 S30 S40 S56 S56 S39 S30 S31 S29 S30 S33 S26 S45 S46 S43 S43 S13 S12 S1 S20 S6 S16 S17 S23 S24 eduard

## P-39N Airacobra

## STENCILING POSITIONS

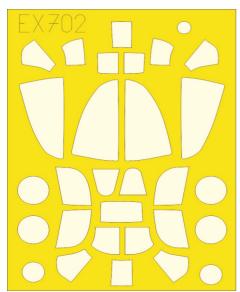


## **Eduard** goodies for

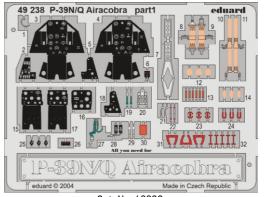
# P-39N Airacobra 1/48

49238 P-39Q/N (PE-Set)

648203 P-39 wheels late (Brassin)
3DL48150 P-39N SPACE (3D Decal Set)
D48068 P-39 stencils (Decal Set)
EX702 P-39/ P-400 TFace (Mask)



Cat. No. EX702



Cat. No. 49238



