# A6M3 Zero Type 22

## eduard

### 1/48 Scale Plastic Model Kit



# ProfiPACK edition

The Mitsubishi Zero became the symbol of the Japanese air power during WWII. The A6M3 Model 22, introduced by the Japanese Naval Air Force in early 1943, was the longest-range version of this legendary fighter plane.

During the 1920s and 1930s the Japanese aircraft industry was oriented towards the production of foreign license-built aircraft. However, the armed forces, especially the Navy with regard to the specifics of the Chinese and Pacific battlefields, came up with requirements that foreign aircraft designs did not offer. Hence, Mitsubishi Industries developed the Type 96 naval fighter aircraft, better known as the A5M Claude. The head of the design team was a young Japanese engineer, Jirō Horikoshi. With an engine that lacked some power, he managed to design a light and fast fighter with a fixed landing gear, which had no comparison in the world regarding maximum speed. In October 1937, Mitsubishi and Nakajima were approached to develop prototype 12-shi Carrier-based Fighter. The requirements were so extreme, and in some cases contradictory, that the two design teams investigated whether they could be less stringent. Nakajima eventually withdrew from the project, while the criteria for the prototype were even raised based on experience on the Chinese battlefield. In the end, Horikoshi's team managed to meet the technical specifications, not only thanks to the aerodynamic design and a new type of light alloy used for the aircraft's skin, but also thanks to the Nakajima Sakae 11 engine. During the flight tests, the wing surface suffered cracking during overload, and aileron control during high-speed maneuvers had also to be addressed. The new fighter had a powerful armament of two cannons and two machine guns, extremely long range (over 1,800 km) and excellent maneuverability. The new fighter reached top speed of 533 km/h at an altitude of 4,550 m. However, it lacked armor and other protective features and had a structural speed limit of 600 km/h.

The new aircraft entered service in 1940 with 940 hp engine Sakae 12 and received the official designation Rei shiki Kanjō sentōki (Type 0 carrier fighter), with the "zero" being derived from the imperial year 2600 (1940). Japanese pilots usually abbreviated it as Rei-Sen. That was also the origin of the name Zero, often used by Allied pilots instead of the official code name, derived from the male name Zeke.

As part of the Navy's system, the new aircraft was given the designation A6M, where A6 meant that it was the sixth type of carrier fighter to enter service, and M stood for the Mitsubishi company name. Zeros, specifically the A6M2 Type 11, had been successfully deployed on the Chinese battlefield since the summer of 1940, but their existence eluded Western intelligence because no one wanted to believe reports from China that suggested the Japanese had a world-class fighter. Further modifications to its design were made during 1941, creating the A6M2 Type 21. Total of 740 A6M2 aircraft were produced by Mitsubishi by June 1942 with additional 800 delivered by Nakajima by February 1944. The gun armament was improved and variants with magazines for up to 150 rounds could be used on the Type 21.

In 1942, Mitsubishi started mass-production of Zeros with a two-stage compressor Sakae 21 engine, delivering up to 1,130 hp. The heavier engine required modification of the engine cowling and also fuselage

had to be shortened as well as the wingspan. The modified version was designated A6M3 Type 32. The speed limit was raised but the range was reduced, and 340 examples were produced from June to December 1942. The Allies at first believed that this was a new type of fighter. Therefore, they gave it a separate codename Hap, later changed to Hamp.

The Zero Type 32 was put into service on several aircraft carriers in the second half of 1942, but did not stay in that role for long. The backbone of the carrier force continued to be the Zero Type 21, followed later by the Type 52. The A6M3 Zero Type 32 was soon followed by Type 22.

#### Further development

Type 52 was another version with the shortened wingspan. Production began in early 1944 and Type 52 was very similar to the Type 22a. Soon the exhaust system was modified to help increase the speed of the aircraft. The Type 52a had enlarged cannons ammunition supply of 125 rounds per weapon and with type 52b the 13.2 mm machine gun was installed on the right side of the fuselage. For the Type 52c, two 13.2 mm machine guns were fitted in the wing and the 7.7 mm machine gun on the left side of the fuselage was deleted. Eight racks for small caliber bombs or rockets were added to the wing. For night -fighting purposes, a forward-firing cannon in the fuselage behind the cockpit was installed in some Zeros, designated as A6M5-S. In total, Mitsubishi and Nakajima produced more than 5,000 A6M5s.

The last combat-deployed variant of the Zero was an aircraft with a reinforced structure for dive bomber purpose (Type 62). Later, the A6M7 was equipped with the Sakae 31 engine producing 1,130 hp. This fighter-bomber variant was designated as Type 63.

Several hundred aircraft were also modified from the A6M2 Zero Type 21 and A6M5 Type 52 to the two-seaters A6M2-K and A6M5-K, produced from January 1943 and May 1944 respectively.

#### The kit: A6M3 Zero Type 22

After the Allied landings on Guadalcanal, the IJN fighter units came up with a request for a Zero with the Sakae 21 engine, but with the range comparable to A6M2. Designers at Mitsubishi modified the wing including design of fuel tanks. The wing looked like the one of Type 21, but the range was 100 miles longer. This version was designated A6M3 Type 22, the extended gun barrels planes were designated Type 22a. Mitsubishi produced 560 A6M3 Type 22 and 22a airplanes from December 1942 to August 1943. The aircraft were initially produced with grey paint on all surfaces, but from May 1943 Mitsubishi began to finish the aircraft with green paint on the upper surfaces.

To date, no evidence has been found that the Zero Type 22 was assigned to aircraft carrier service. The main areas where the Zero Type 22 was deployed from early 1943 onwards were Solomon Islands, New Britain and Indonesia.



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 \*







**BROUSIT** 







SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ



REMOVE REVERSE SIDE **ODŘÍZNOUT** OTOČIT

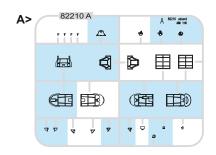
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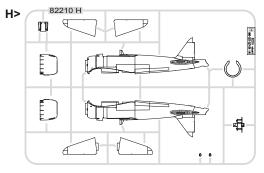


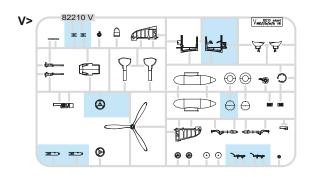
APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT

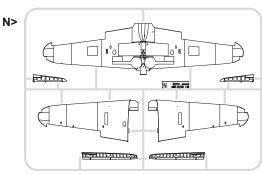
部品 DÍLY PIÈCES **PARTS** TEILE

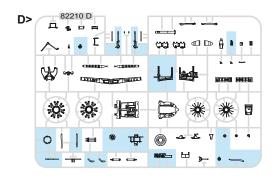
#### **PLASTIC PARTS**















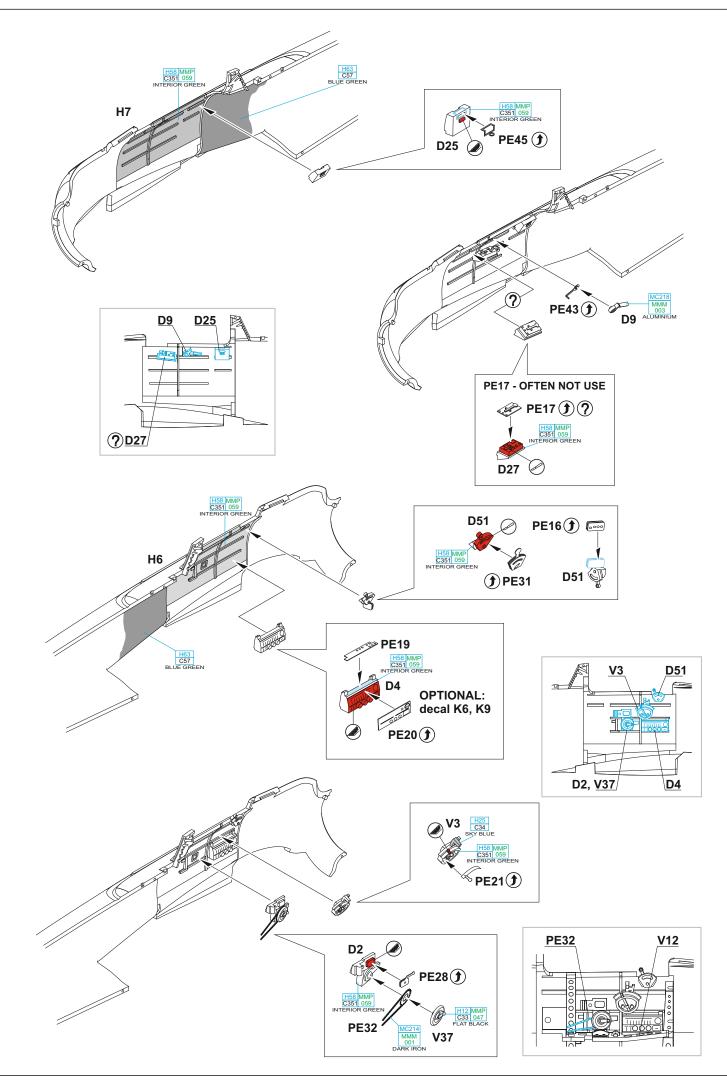


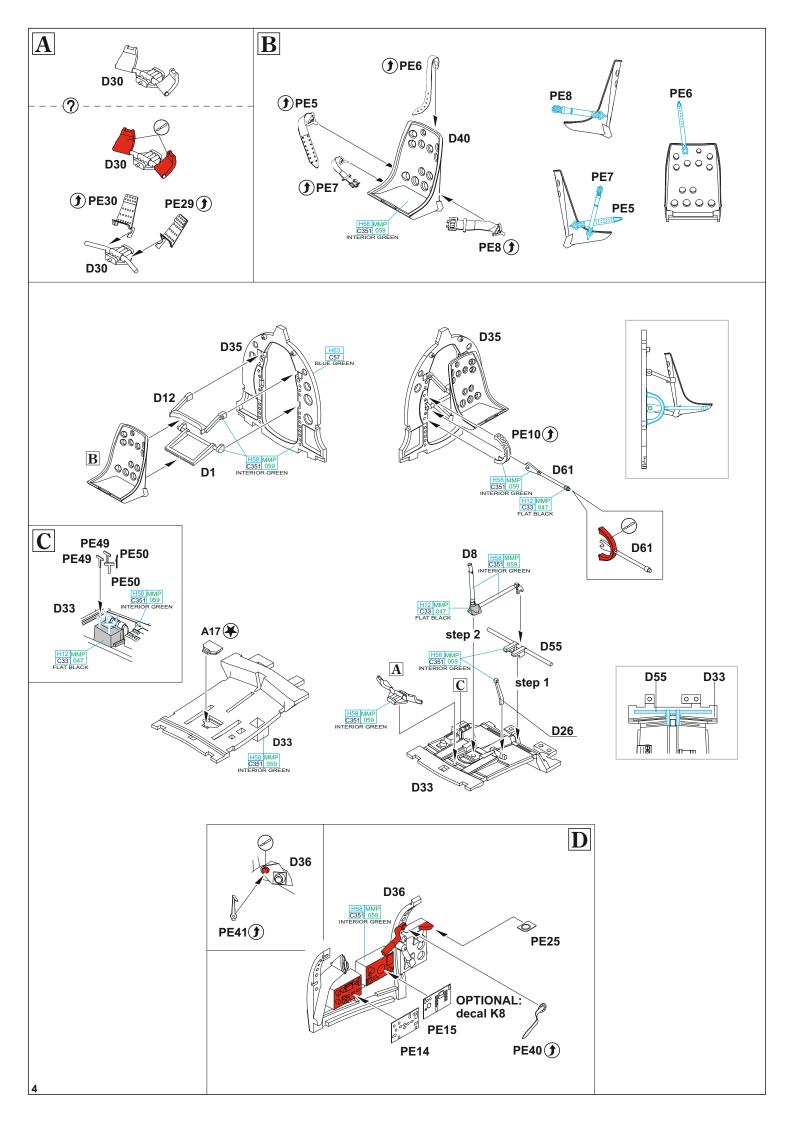
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない部品

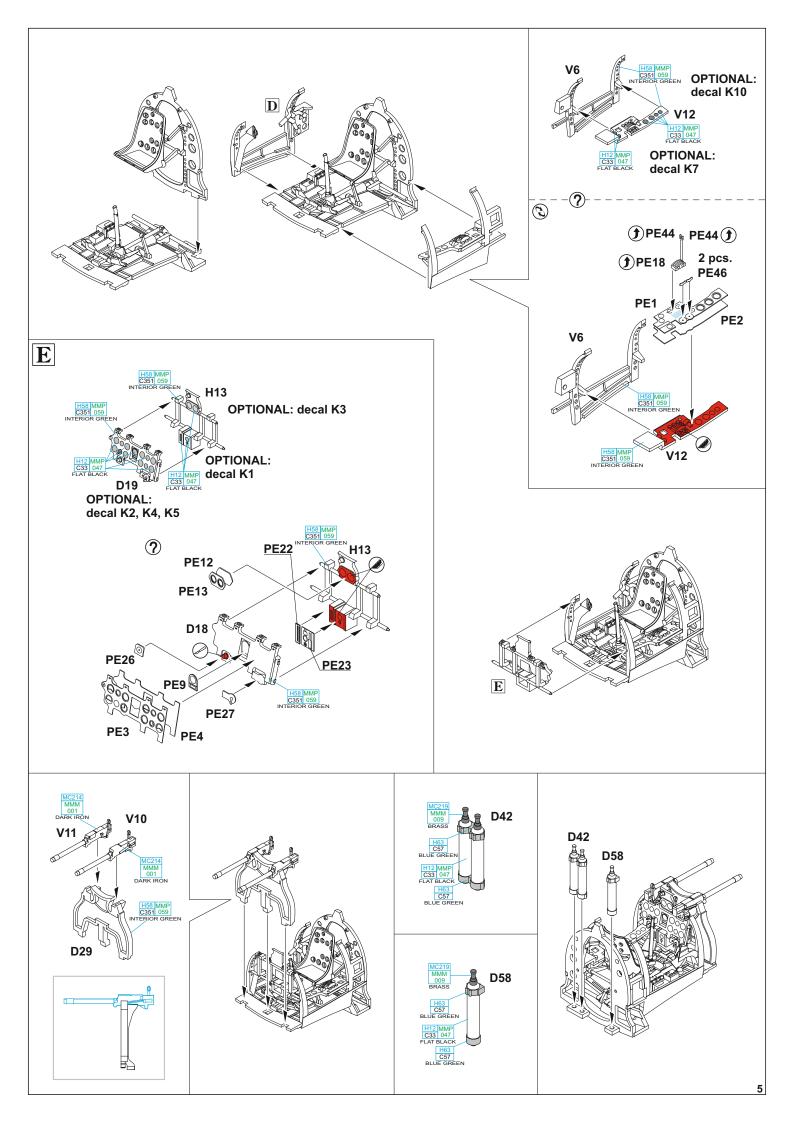
**COLOURS BARVY FARBEN PEINTURE** 

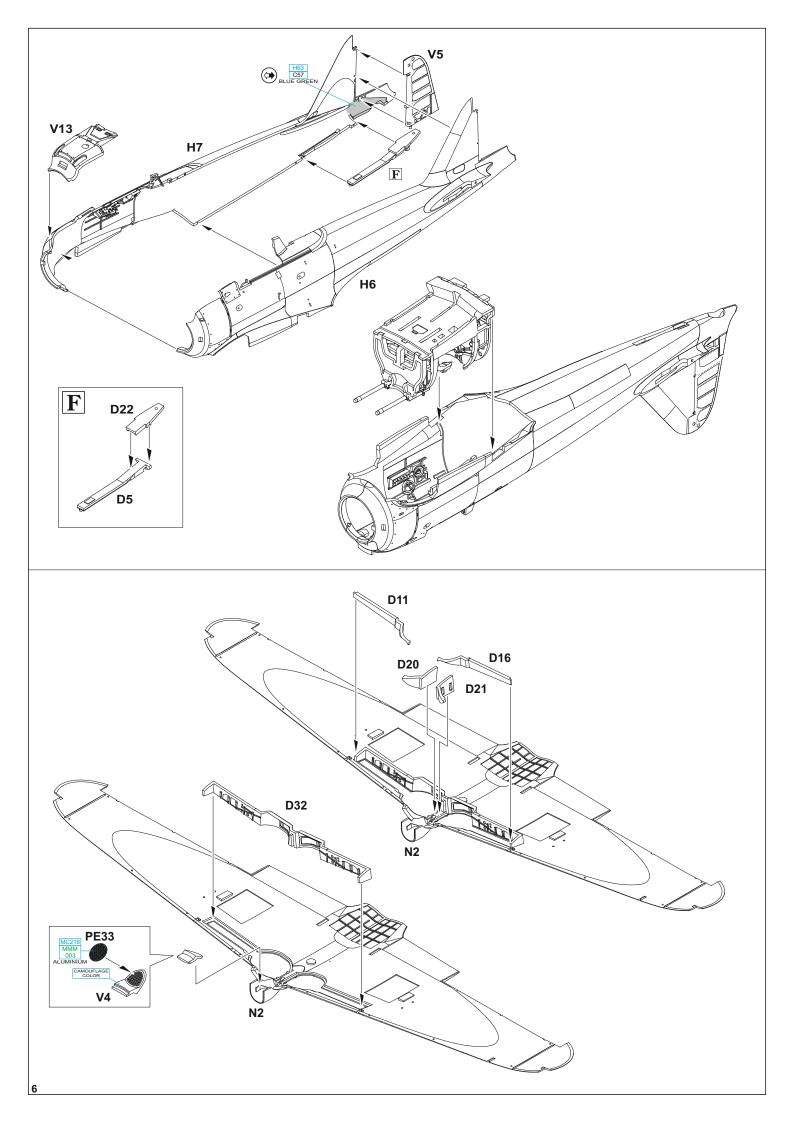
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H1	C1	MMP-001	WHITE
H2	C2	MMP-047	BLACK
H8	C8		SILVER
H12	C33	MMP-047	FLAT BLACK
H24	C58		ORANGE YELLOW
H25	C34		SKY BLUE
H47	C41	MMP-012	RED BROWN
H58	C351	MMP-059	INTERIOR GREEN
H63	C57		METALLIC BLUE GREEN
H70	C60	MMP-056	GRAY
H77	C137	MMP-040	TIRE BLACK
H90	C47		CLEAR RED

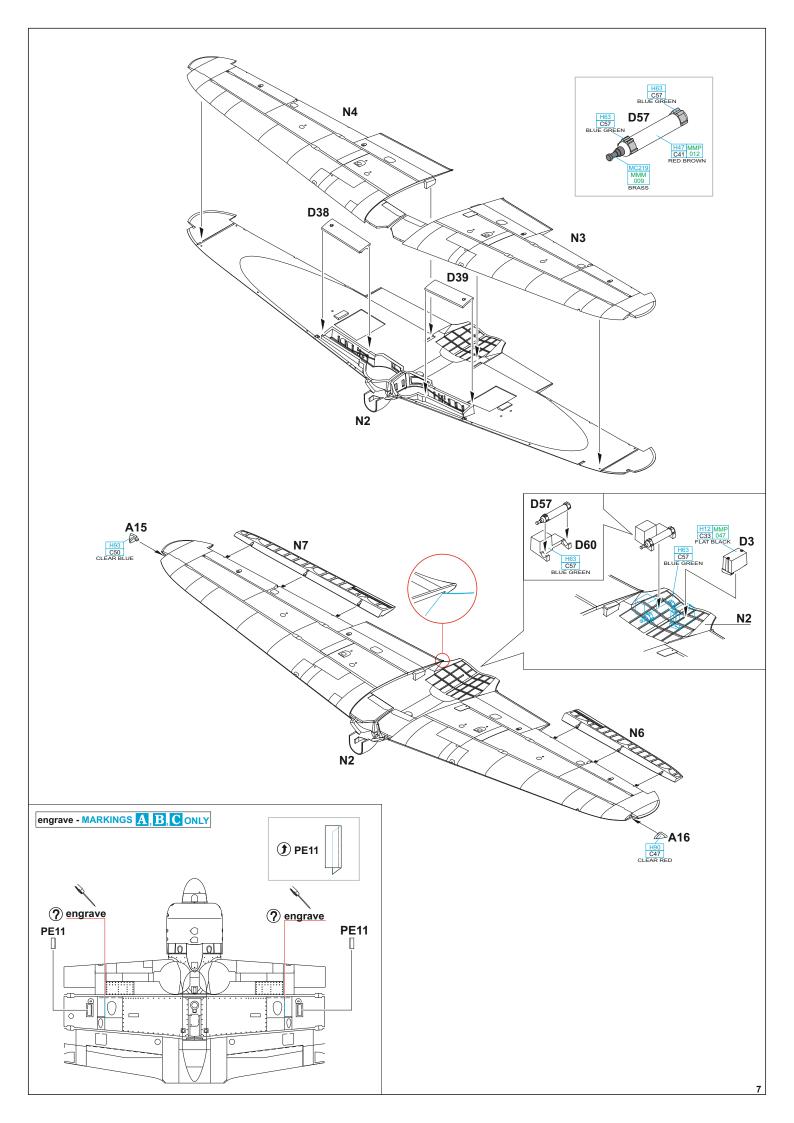
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H93	C50		CLEAR BLUE
H336	C336		HEMP
H417	C117	MMP-051	RLM76 LIGHT BLUE
	C124		DARK GREEN
	C125	MMP-108	COWLING COLOR
	C131	MMP-115	RED BROWN
Mr.METAL COLOR		METALLICS	
MC214		MMM-001	DARK IRON
MC218		MMM-003	ALUMINIUM
MC219		MMM-009	BRASS
Mr.COLOR SUPER METALLIC		METALLICS	
SM201		MMC-001	SUPER FINE SILVER

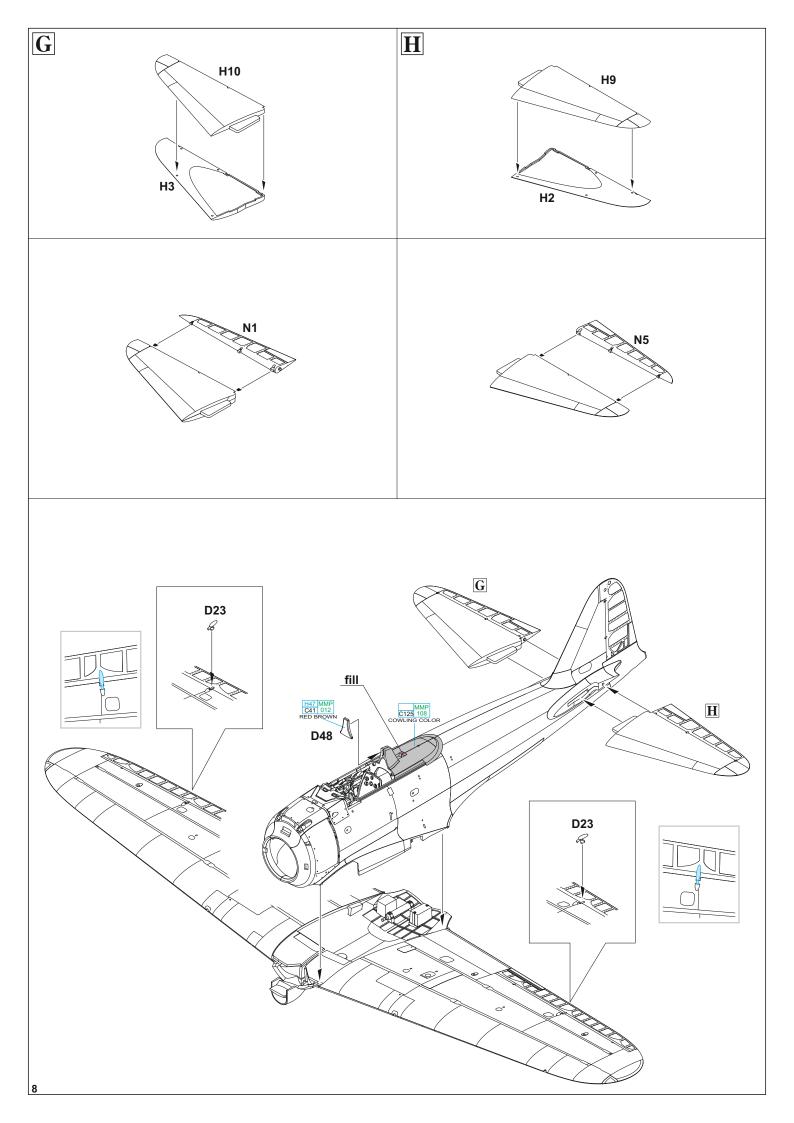


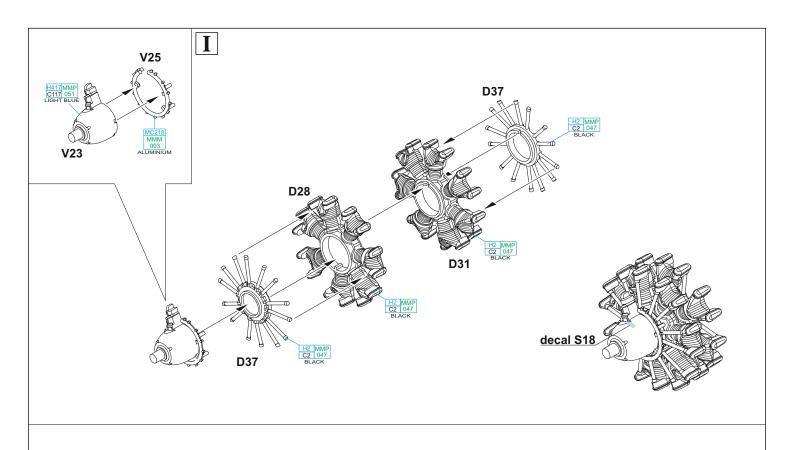


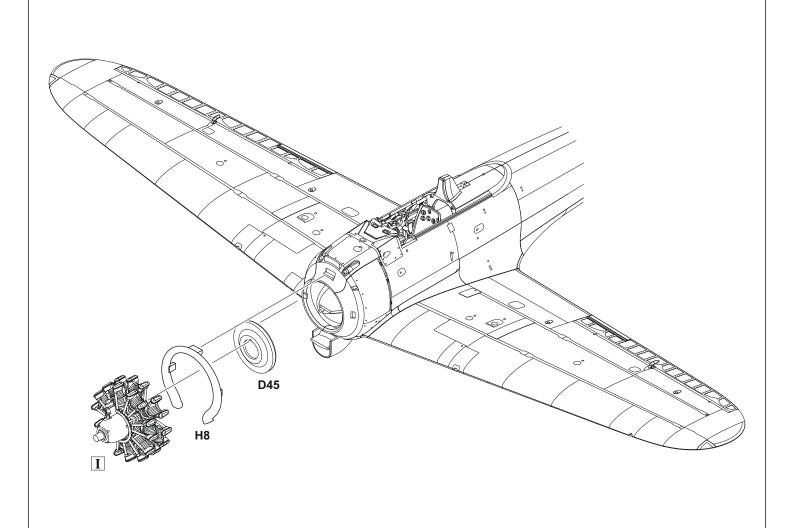


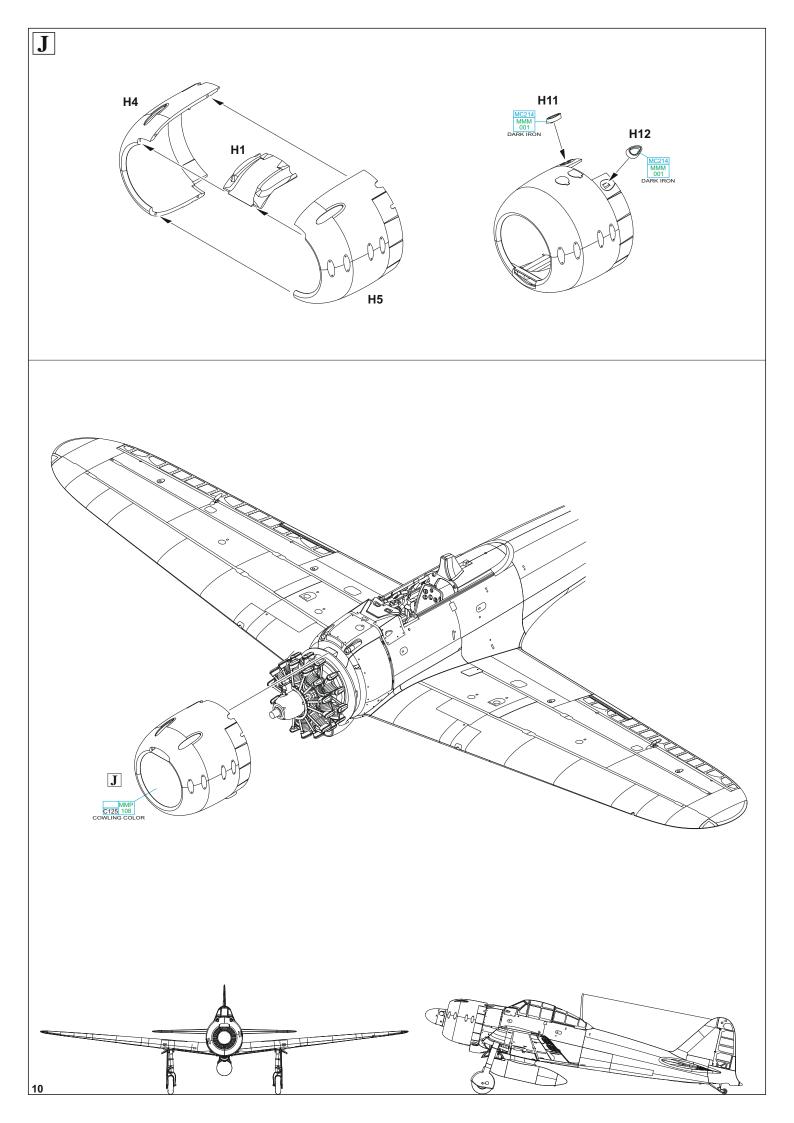


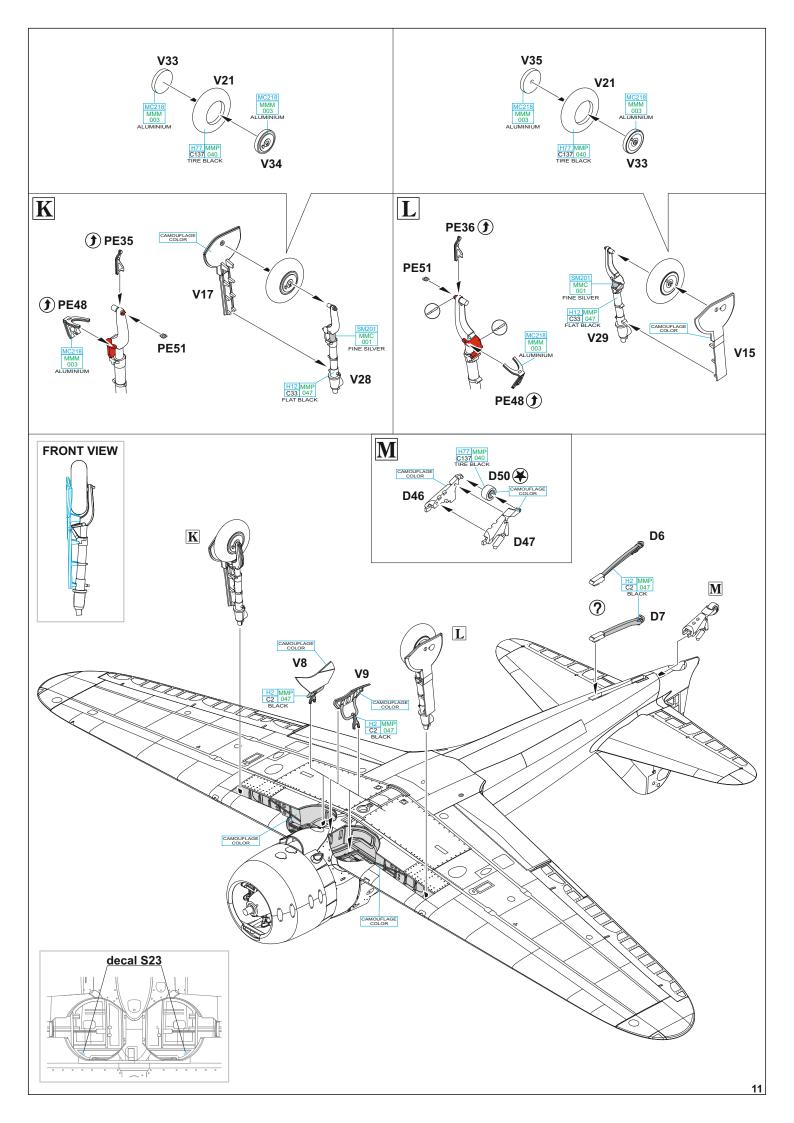


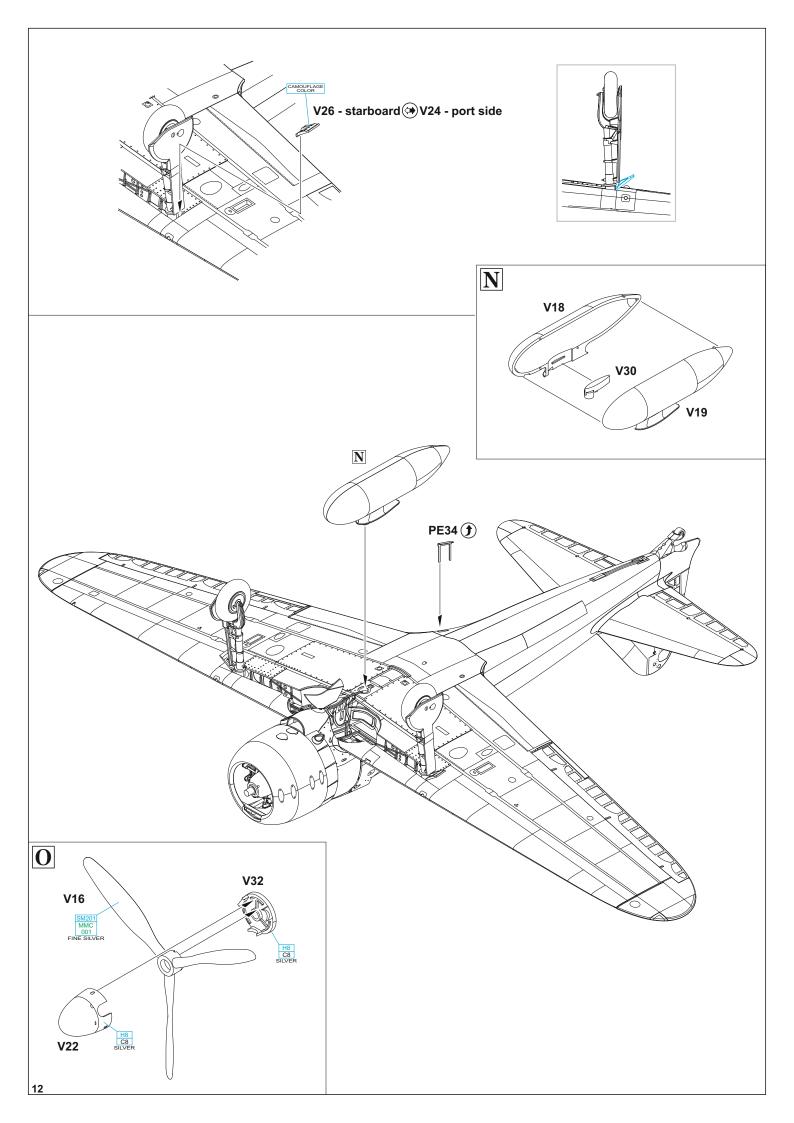


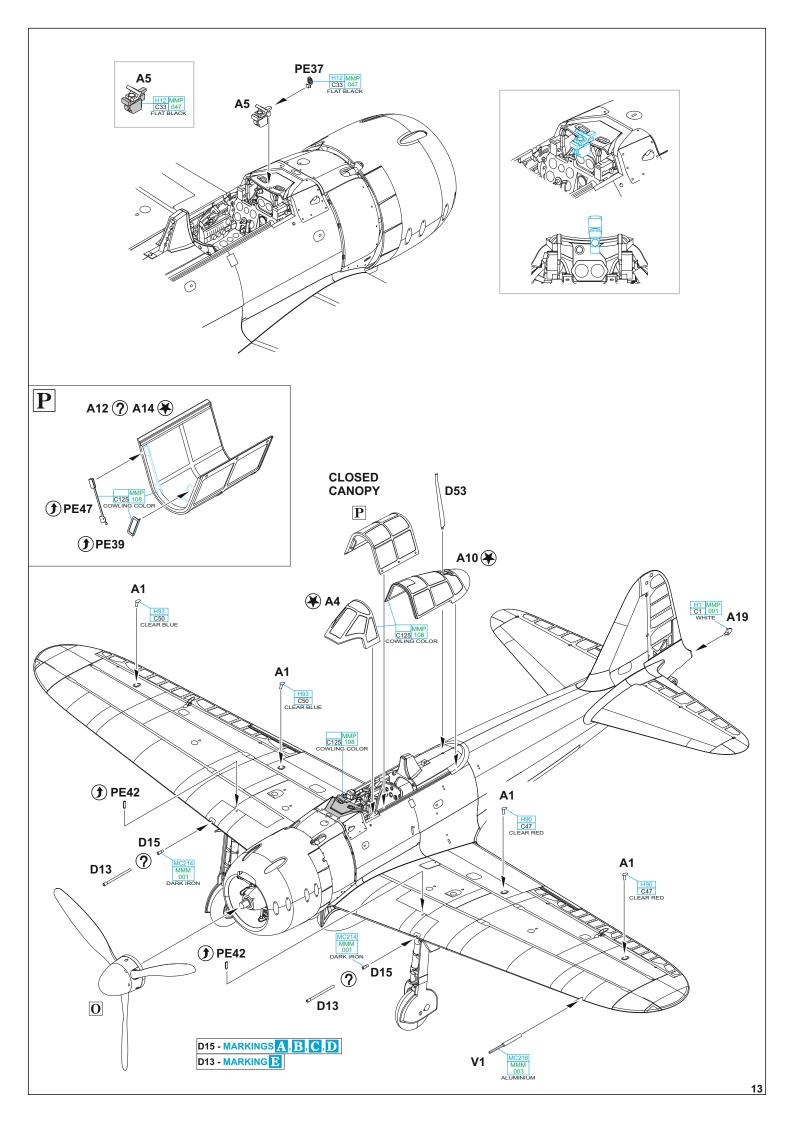


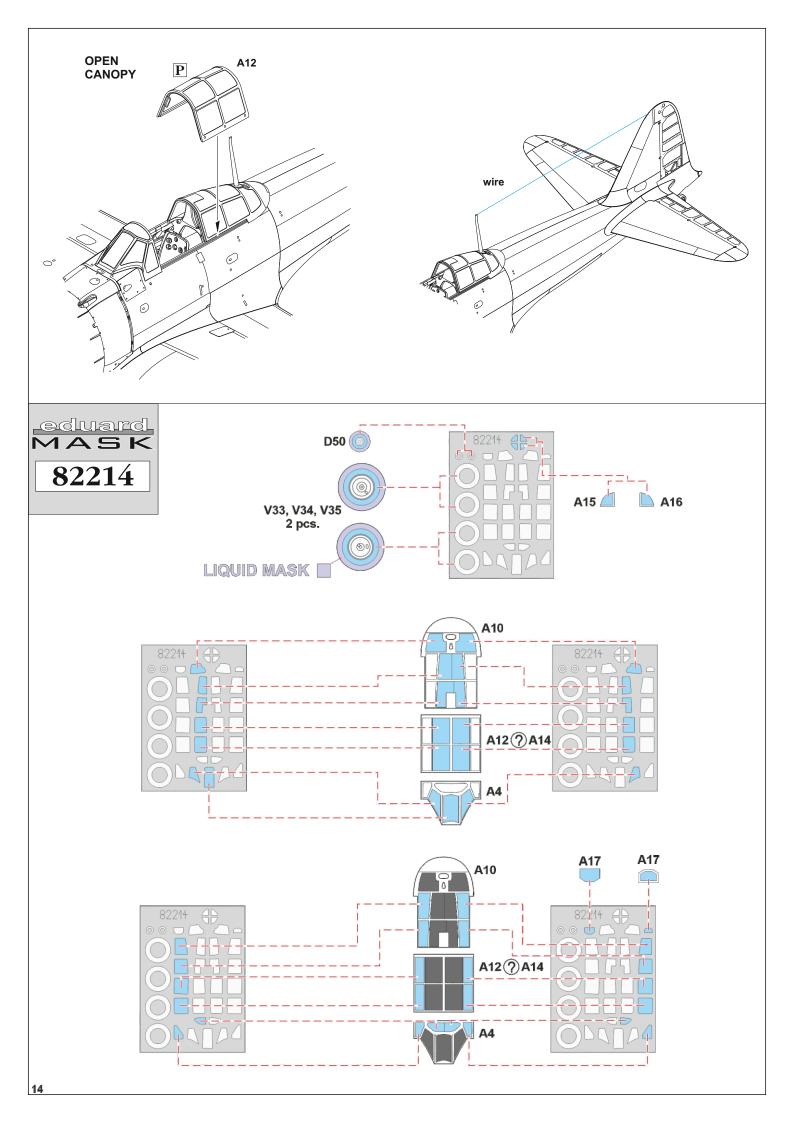






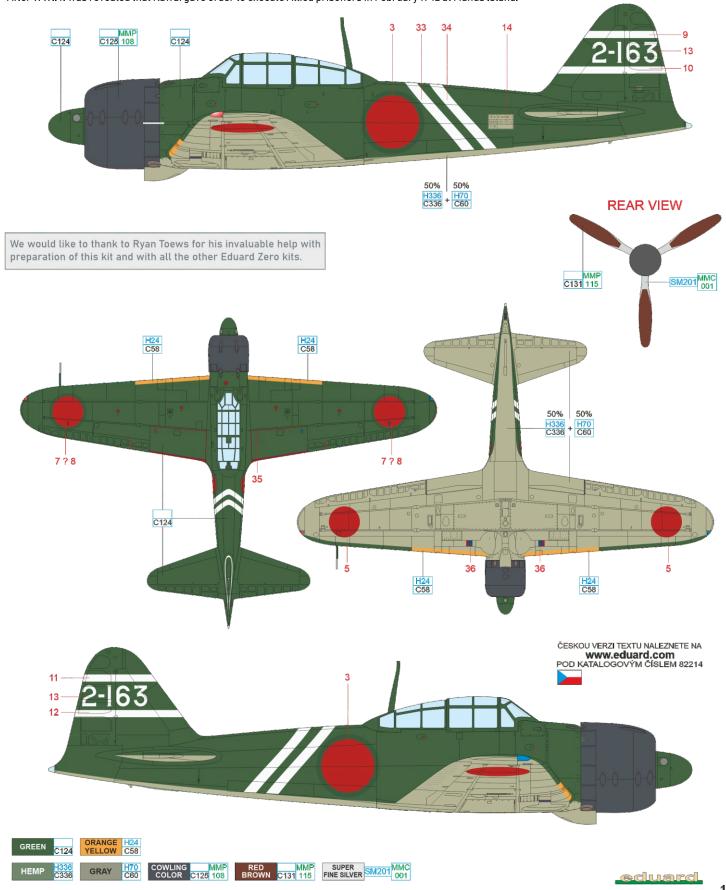






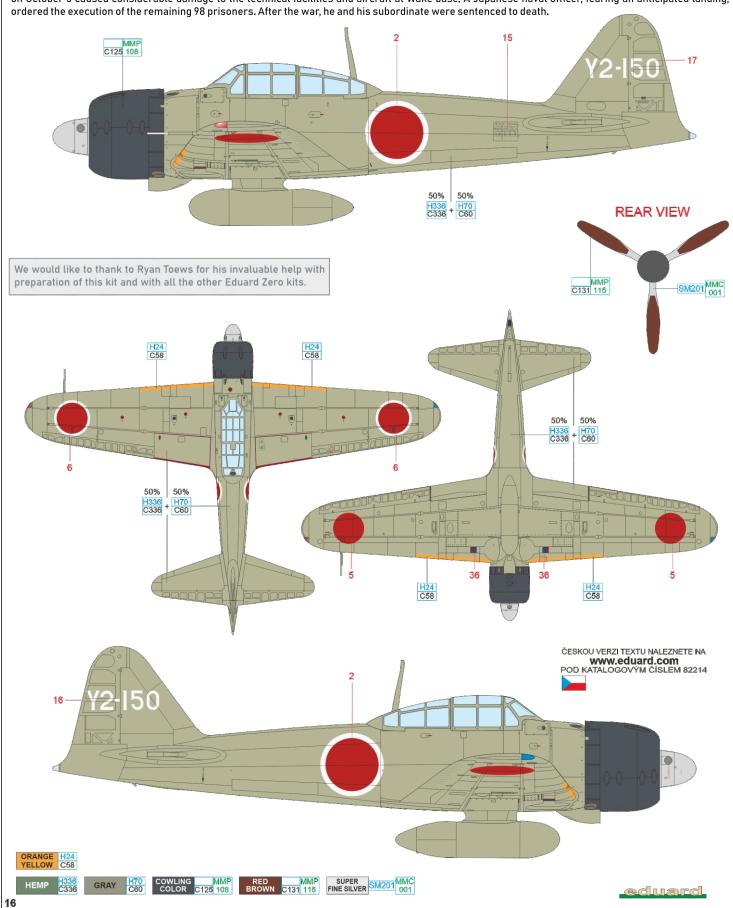
#### 🛕 Lt. Cdr. Shirō Kawai, Kōkūtai 201, Rabaul air base, New Britain, September 1943

This aircraft, with commander's markings and factory green paint, was filmed for a Japanese newsreel published in October 1943. Some Japanese sources attribute this machine to Lt. Cdr. Kawai, who was serving as Hikōtaichō at Kōkūtai 201 at the time. In the second half of 1943, the markings of fighter units at Rabaul changed, and numerals ranging from 1 to 9 began to be used, the assignment of which to individual units has not yet been reliably determined. Aircraft with these markings are unofficially assigned to a combat group called Rabauru Kōkūbuntai (Rabaul Air Force). One of the theories assumes the numerical codes identified parts of the fighter units operating in Rabaul at the time. These were Kōkūtai 201 (code designations 1 to 3), Kōkūtai 204 (4 to 6) and Kōkūtai 253 (7 to 9). Shirō Kawai graduated from the Naval Academy in March 1937 and was a veteran of 12. Kōkūtai from fighting in China. His most successful period was in 1942 as leader of part of 4. Kōkūtai and later Tainan Kōkūtai. He served with Kōkūtai 201 from early 1943. The unit was deployed to Bougainville and Rabaul from July, but Kawai flew very few combat sorties. In October 1944 he was assigned to Hikōtai 308 as part of Kōkūtai 221. He remained missing after aerial combat on December 24 near Clark Field, Philippines. He bailed out in mountains but was apparently killed by guerrillas. After WWII it was revealed that Kawai gave order to execute Allied prisoners in February 1942 at Manus Island.



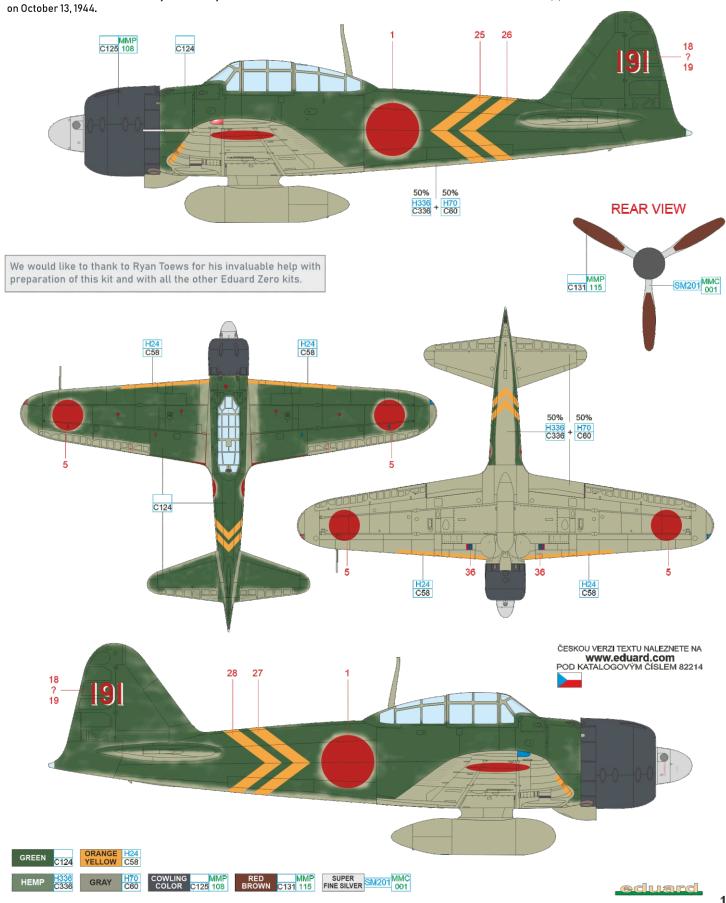
### **B** c/n 3257, Kōkūtai 252, Wake Island, November 1943

The wreckage of this aircraft was found on Wake Island when it was captured by American forces in September 1945. This base fell into Japanese hands in December 1941 after valiant resistance by the defenders. Kōkūtai 252 was formed in late 1942 from the Genzan Kōkūtai fighter squadron and participated in the fighting over Guadalcanal. In February 1943, it moved to Micronesia and the part of it based at Wake Island was under the command of Lt. Yūzō Tsukamoto and later Lt. Suhō. Their pilots were involved in sporadic engagements with American B-24 bombers, but the unit suffered heavy losses on October 5, 1943 during the Task Force 14 attack on Wake Atoll. Americans were engaged by 26 Zeroes, but 16 were lost with their pilots. The Japanese claimed ten victories and the American side lost six aircraft. According to Kōkūtai 252 records, c/n 3257 was to be redesignated from tail code Y2-157 to 52-150 in early November 1943. Photographs, however, indicate that only the individual aircraft number was changed. By mid-November, this Zero no longer appears on the Kōkūtai 252 equipment list. The unit was destroyed in early 1944 during the fighting in the Marshall Islands. The air raid on October 5 caused considerable damage to the technical facilities and aircraft at Wake base. A Japanese naval officer, fearing an anticipated landing, ordered the execution of the remaining 98 prisoners. After the war, he and his subordinate were sentenced to death.



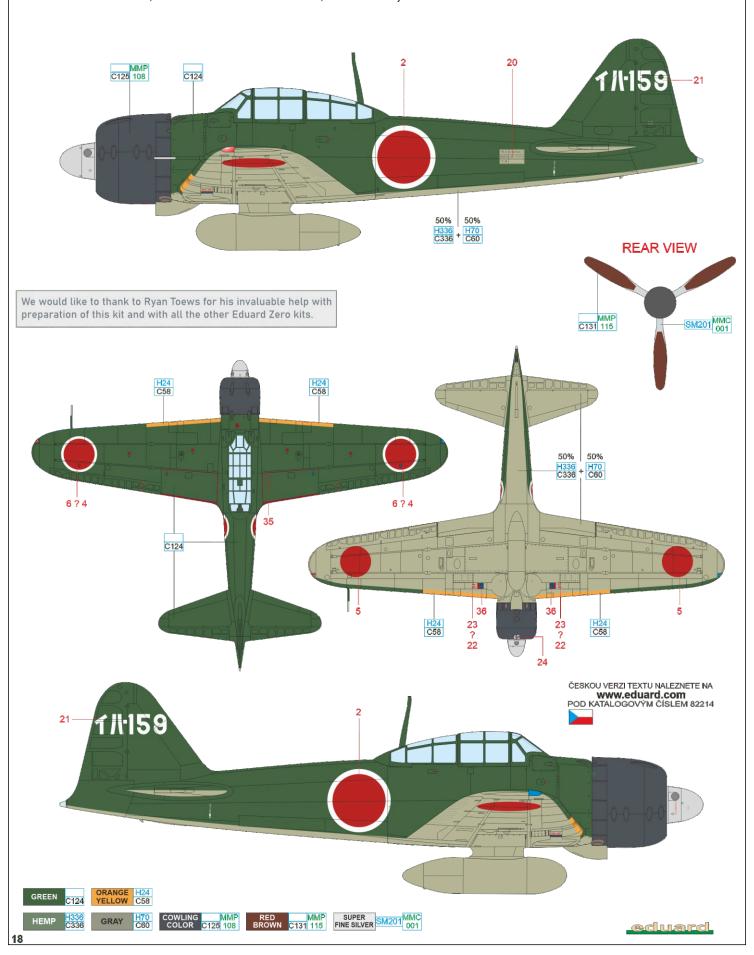
### Lt. Usaburō Suzuki, Kōkūtai 582, Buin airfield, Ballale Island, April 1943

This originally grey machine was partially repainted in field conditions with dark green paint. The pilot of this machine is said to have been Lieutenant Suzuki. The aircraft is shown in a photograph taken at the airfield during Operation I-gō. Unfortunately, the tail number was retouched by the censor. The numbers 191 and 182 are only hypothetical variants and are derived from the principle of dividing the unit into formations of nine machines. The machine with two chevrons with a photographic evidence of the tail code bore the number 173. Kōkūtai 582 was a mixed unit, armed with both A6M fighters and D3A Val bombers. Usaburō Suzuki graduated from the Naval Academy in August 1940. Two years later he was assigned to the 3. Kōkūtai (later Kōkūtai 202) and saw combat over New Guinea and Guadalcanal. With Kōkūtai 582 as Buntaichō of its fighter squadron, he led pilots in a series of battles in mid 1943 during the defence of Bougainville. He also commanded in the last action, on July 12, after which Kōkūtai 582's fighter squadron was disbanded and Suzuki was transferred to Kōkūtai 204. In November 1943 he became Hikōtaichō in Kōkūtai 265, which had been deployed in the Marianas area since the spring of 1944 and was disbanded in July after heavy losses. He then became commander of Hikōtai 301 within Kōkūtai 201 (II) and was killed in action off Taiwan on October 13, 1944.



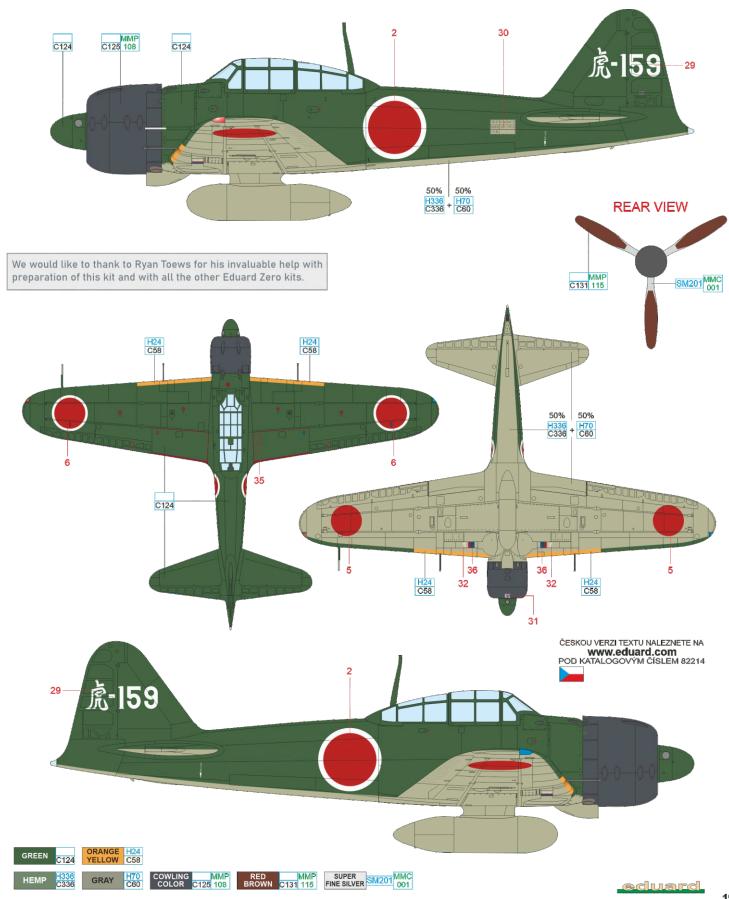
## lwakuni Kōkūtai, lwakuni airbase, Japan, 1944

This machine was manufactured with factory applied dark green color on upper surfaces. The markings of this training unit are the Katakana characters "I" and "Ha". The Iwakuni Kōkūtai was established in July 1940 and was used to train pilots for naval units operating from land bases until August 1944. It was then disbanded and re-established in March 1945. Fighter aces Akio Matsuba (18 victories), Momoto Matsumura (13 v.) or veteran of the aircraft carrier veteran Sōryū Ki-ichi Oda (9 v.) passed through its ranks as instructors. Hiroshi Shibagaki came through the unit as a student pilot, achieving thirteen victories in Rabaul with Kōkūtai 201 and 204. Another successful graduate became a Lt.(jg) Kagemitsu Matsu-o. In August 1943, he was assigned to Rabaul to Kōkūtai 253 and, with more than ten kills to his credit, became the only Naval Reserve officer to achieve ace status.



#### Kōkūtai 261 (Tora), Kagoshima airbase, Japan, 1944

The machine was manufactured with factory painted dark green paint on the upper surfaces. Kōkūtai 261 was established in June 1943 at Kagoshima Air Base, Japan, and was given the battle name Tora (Tiger) and was also referred to as Tora Butai. The identifying feature of its aircraft was the numerical code 61, or Kanji character for tiger. Its design varied from machine to machine. At the end of February 1944 unit moved to Iwo Jima and later went through heavy combat with US Navy airmen, primarily in Central Pacific. Unit also operated briefly from Biak Island north of New Guinea. By May 1944, its aircraft strength was already reduced to half, and in July the unit had to be disbanded due to high casualties. Some of the remaining members of the unit were killed in ground combat or aboard a submarine during the evacuation. The position of Hikōtaichō was held by Lieutenant Masanobu Ibusuki, who participated in the attack on Pearl Harbor and the Battle of Midway on the aircraft carrier Akagi and served on the aircraft carrier Shōkaku during the fighting in the South Pacific. It is possible that Ibusuki achieved 25 to 30 aerial victories during the war. After the war, he became the first JSDAF unit commander with F-86 Sabre jets, reaching the rank of Lieutenant Colonel, but was killed in January 1957 in a collision with another F-86.



# A6M3 Zero Type 22

## STENCILING POSITIONS

