

L-39ZA ALBATROS

eduard

1/72 Scale Plastic Model Kit

ProfiPACK
edition



item No. 7047

The Aero L-39 Albatros is one of the best known and most widely used jet trainer aircraft in the world. Its owes its success to advanced and well-thought basic concept, which also allowed further development.

The Aero company had already achieved great success with its first jet trainer, the L-29 Delfín, which won the 1961 competition for the standard trainer of the former Warsaw Pact air forces. It was a simple and effective aircraft that trained thousands of pilots. By the first half of the 1960s, however, it was already clear that a more powerful aircraft would be needed to better prepare future military pilots for increasingly advanced jets. Therefore, under the leadership of the chief designer Jan Vlček and the head of design Karel Dlouhý, work on the concept of a new aircraft was started at the then Středočeské strojířny company (Central Bohemian Machine Works). The initial phase considered two ways of development. The first of them was to modernize the L-29 into the L-129 version intended for elementary training while for advanced training a new, slightly supersonic aircraft designated L-39 was to be developed. The second option included only the L-39 in three versions, covering elementary, advanced and combat pilot training.

Initial development

Both studies were submitted for review on July 15, 1964. The second option was chosen, and the L-39 design was further developed. Initially, a slightly swept wing was proposed with slats being considered to keep landing speeds on acceptable levels for trainees. The flaps were to be of single or double-slotted design. These solutions were verified on a scale model No. 2a in 1:5 scale. The following model No. 3 was prepared in 1965 and was used to verify the overall concept. It had a trapezoidal wing with a profile from the NACA 64 family, as the swept wing idea was abandoned. At this stage, further development was conducted at Aero Vodochody company. The wind tunnel at VZLÚ (Czech Aerospace Research Centre) in Prague was used for primary tests, and the CAGI (Central Hydro and Aerodynamical Institute) speed and spin tunnel in the USSR was used for further development.

The development of a completely new ejection seat VS1-BRI, which was carried out at VZLÚ under the leadership of Jiří Matějček, was also a major task. The new system enabled crew rescue at speeds of 150 km/h to 900 km/h at altitudes of 0 m to 13,000 m.

Flight tests

A total of seven L-39 prototypes were built prior to the start of production, five of which were flight-tested and two intended for structural testing (X-01 and X-04). Four more prototypes were subsequently built for the development of the upgraded L-39ZO and L-39ZA versions. Assembly of the airframe of the first flight prototype, the X-02, was completed in January 1968, with systems and engine installations continuing into the summer. The aircraft was first lifted for a 35-minute flight by factory pilot Rudolf Duchoň on November 4, 1968. After a series of test flights, the X-02's original wing with a wing strakes (LERX) was replaced with a new wing that no longer had them, while several engine compressor stalls required enlargement of the engine intakes and also the move of their leading edge forward by 370 mm. Additional small NACA-shaped intakes were also added on the sides of the fuselage behind the main intakes.

The test program was followed by a second flying prototype, the X-03, which was first flown on May 7, 1969, and served also for tests of the VS-1-BRI rescue system. In July 1971, the new ejection seats were repeatedly successfully launched in flight by military paratroopers Petr Suchoň and Karel Plzák.

The third flight prototype, the X-05, took to the air for the first time on September 23, 1969 and the factory pilot Juraj Šouc subsequently flew the prototypes X-06 and X-07, which were already equipped with large intakes. The X-06 was also the first L-39 to make an emergency landing. Due to a landing gear malfunction, it was belly-landed by another factory pilot, Vlastimil David.

Engine cooperation

The Soviet AI-25 powerplant was chosen for L-39, which thus became one of the first military aircraft to use a bypass jet engine. This powerplant had proven itself in the Yak-40 transport aircraft, but it had to be modified for L-39. The Jinonice Motorlet company developed the AI-25W version with a thrust of 14.4 kN (3,237 lbf). Compared to the original, it had a modified oil and fuel system and a completely new two-stage turbofan. The first production batch of L-39s received engines from Motorlet, but a subsequent governmental agreement with the USSR stipulated that the engines for the L-39 would be supplied by the Ukrainian Zaporozhye plant. Documentation for the AI-25W engine was handed over to the latter, and after further modifications that increased the thrust to 16.85 kN (3,788 lbf), the AI-25TL was developed to power the L-39C aircraft.

Albatros flies to the World

In August 1971, serial production of the L-39, which got the name Albatros, began, and on September 7, the first production unit was handed over to the military administration. Production was carried out by Aero Vodochody (front fuselage and final assembly), Let Kunovice (wing) and Rudy Letov (rear fuselage with tail surfaces). The production of the initial (zero) series continued in 1972, the aircraft were flown to Slovakia and underwent a test run at the aviation academy in Košice. From May 1973, trials were also conducted by the USSR. The X-07 prototype, modified to match the Series 2 aircraft state, took part. The tests were conducted under very harsh conditions, but the L-39 fulfilled all the expectations and was recommended as a standard trainer in the Soviet Air Force.

The L-39 Albatros became one of the most widely used jet trainers in the world in the following years. Thousands of these aircraft are still flying today to the satisfaction of users, including civilians. In addition to flight characteristics, the L-39's strengths include operational reliability, low maintenance, and the fact that it can operate from unpaved surfaces due to its high intakes and closed wheel wells when the landing gear is open.

Further development led to the L-39ZO and ZA versions, intended for advanced training, then to the more powerful MS version and finally to the light attack L-159 Alca. Even this was not the end of the base design of this aircraft, as Aero Vodochody started delivery of a significantly upgraded L-39NG.

ATTENTION



UPOZORNĚNÍ



ACHTUNG



ATTENTION



注意



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 započatím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobře 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. SYMBOLS * INSTRUKTION SINNBILDEN * SYMBOLES * 注意



OPTIONAL
VOLBA



BEND
OHNOU



SAND
BROUSIT



OPEN HOLE
VYVRTAT OTVOR



SYMETRICAL ASSEMBLY
SYMETRICKÁ MONTÁŽ



REMOVE
ODŘÍZNOUT



REVERSE SIDE
OTOČIT



APPLY EDUARD MASK
AND PAINT
POUŽIT EDUARD MASK
NABARVIT

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

PARTS



DÍLY



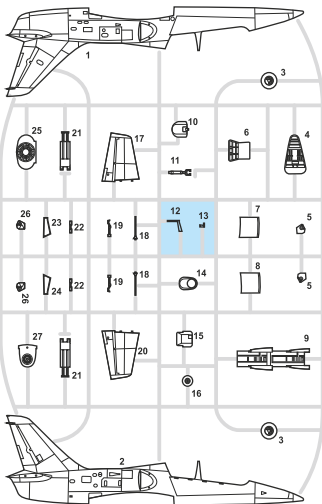
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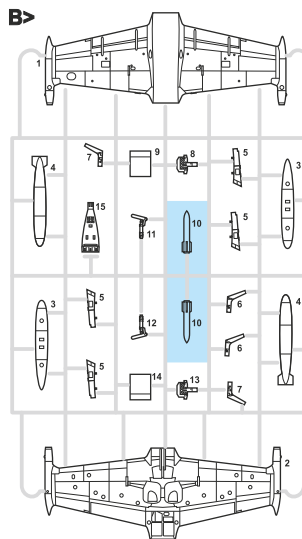
PIÈCES



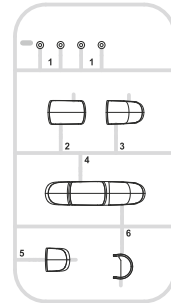
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PLASTIC PARTS

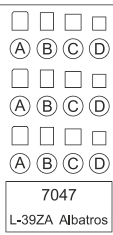


D>



eduard
MASK

FILM



PE - PHOTO ETCHED DETAIL PARTS



-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 注意

COLOURS



BARVY



FARBEN

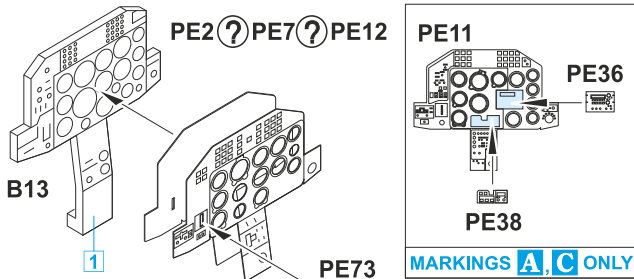


PEINTURE

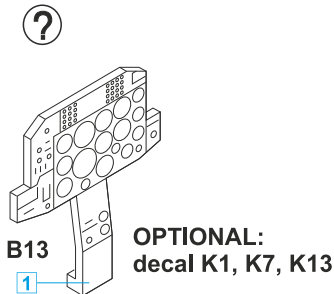


GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H3	C3	RED
H4	C4	YELLOW
H5	C5	BLUE
H8	C8	SILVER
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H13	C33	FLAT RED
H25	C34	SKY BLUE
H51	C11	LIGHT GREY
H52	C12	OLIVE DRAB
H58	C351	INTERIOR GREEN
H60	C16	GREEN
H66	C119	RLM79 SAND YELLOW
H68	C36	RLM74 DARK GRAY
H77	C137	TIRE BLACK
H81	C55	KHAKI
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN
H303	C303	GREEN
H306	C306	MEDIUM GRAY
H307	C307	GRAY

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H308	C308	GRAY
H309	C309	GREEN
H311	C311	GRAY
H315	C315	GRAY
H325	C325	GRAY
H329	C329	YELLOW
H336	C336	HEMP
H337	C337	GRAYISH BLUE
H338	C338	LIGHT GRAY
H405	C126	OLIVE GREEN
H417	C117	RLM76 LIGHT BLUE
	C127	KHAKI
	C362	OCEAN GRAY
	C364	AIRCRAFT GRAY-GREEN
Mr.METAL COLOR		
MC213		STEEL
MC214		DARK IRON
MC218		ALUMINIUM
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER

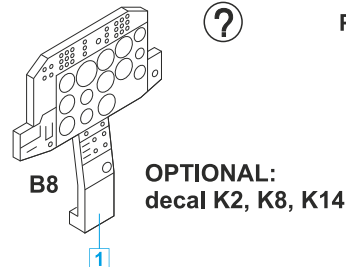
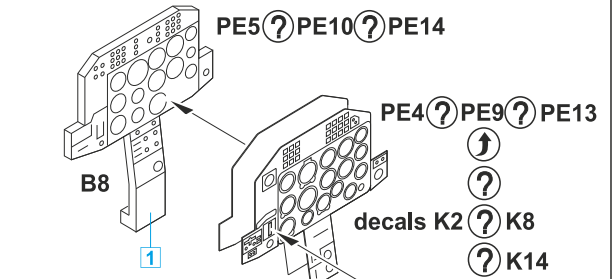


PE1 ? PE6 ? PE11
 ?
 ?
 decals K1 ? K7 ? K13

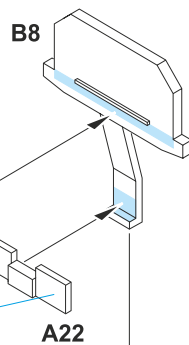
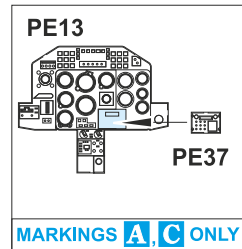


PE11, PE12, PE36, PE38 ? decal K1 - **MARKINGS A, C**
 PE6, PE7 ? decal K7 - **MARKINGS B, D, E**
 PE1, PE2 ? decal K13 - **MARKING F**

1 = - **MARKINGS A, B, C, D, F**
 - **MARKING E**

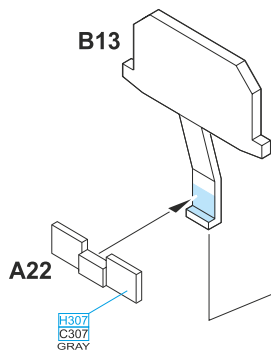


PE13, PE14, PE37 ? decal K2 - **MARKINGS A, C**
 PE9, PE10 ? decal K8 - **MARKINGS B, D, E**
 PE4, PE5 ? decal K14 - **MARKING F**



PE58 ? PE62 ? PE66
 ?
 decals K6 ? K12 ? K18

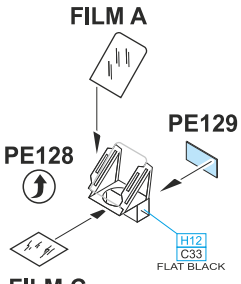
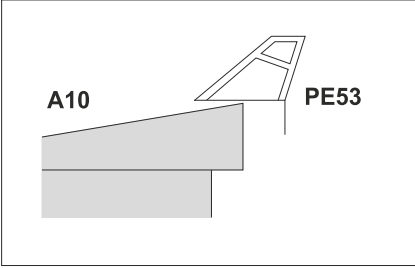
PE57 ? PE61 ? PE65
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 decals K5 ? K11 ? K17



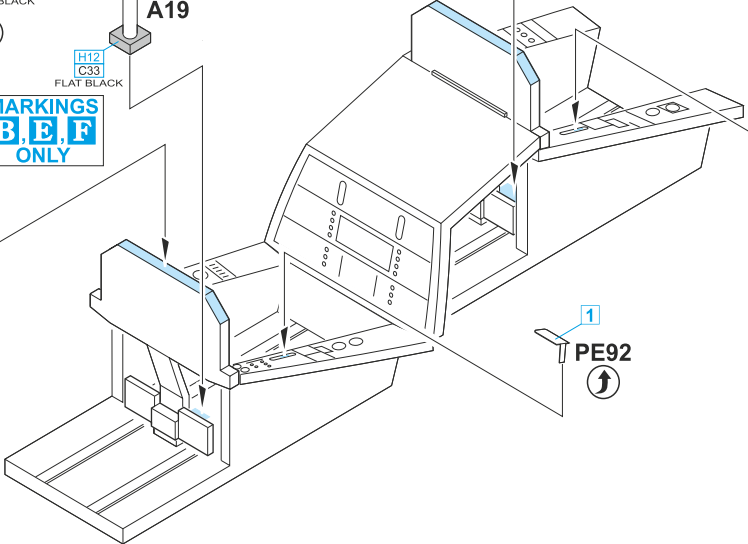
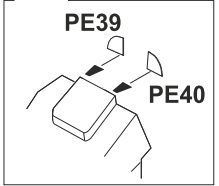
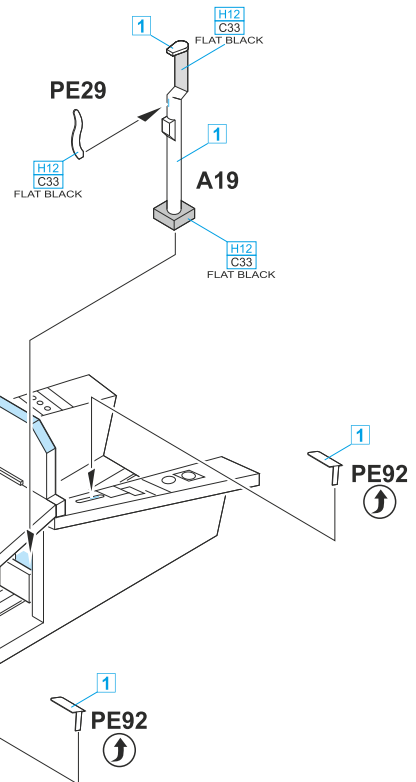
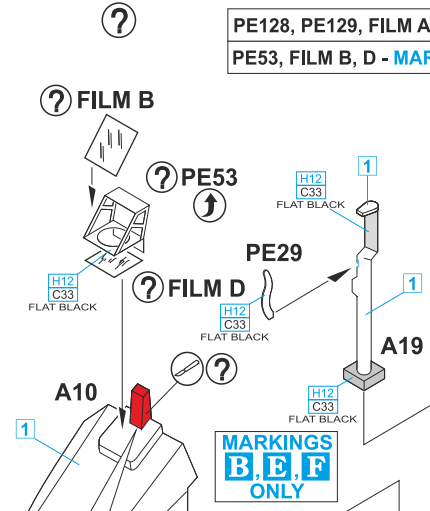
PE56 ? PE60 ? PE64
 ?
 decals K4 ? K10 ? K16

PE55 ? PE59 ? PE63
 ?
 decals K3 ? K9 ? K15

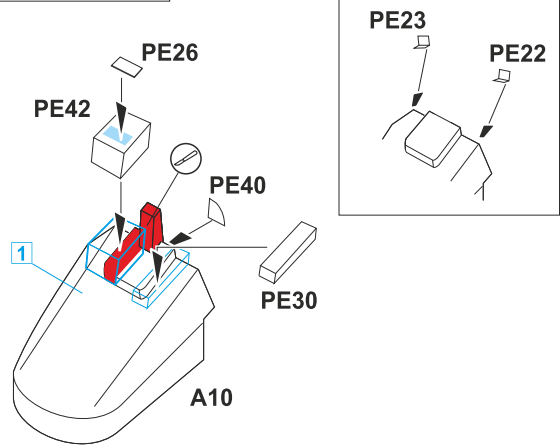
PE63, PE64, PE65, PE66 ? decal K3, K4, K5, K6 - **MARKINGS A, C**
 PE59, PE60, PE61, PE62 ? decal K9, K10, K11, K12 - **MARKINGS B, D, E**
 PE55, PE56, PE57, PE58 ? decal K15, K16, K17, K18 - **MARKING F**



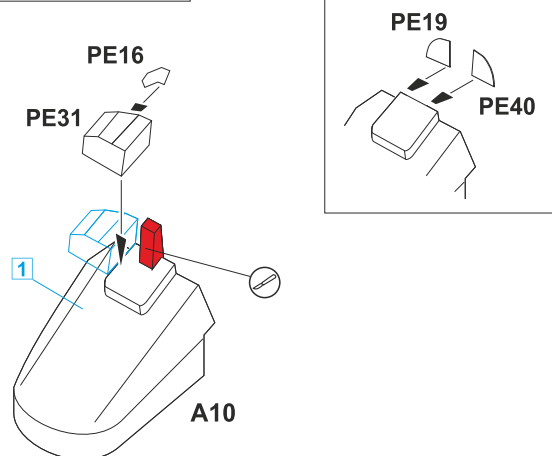
PE128, PE129, FILM A, C - MARKING **F**
 PE53, FILM B, D - MARKINGS **A, B, C, D, E**

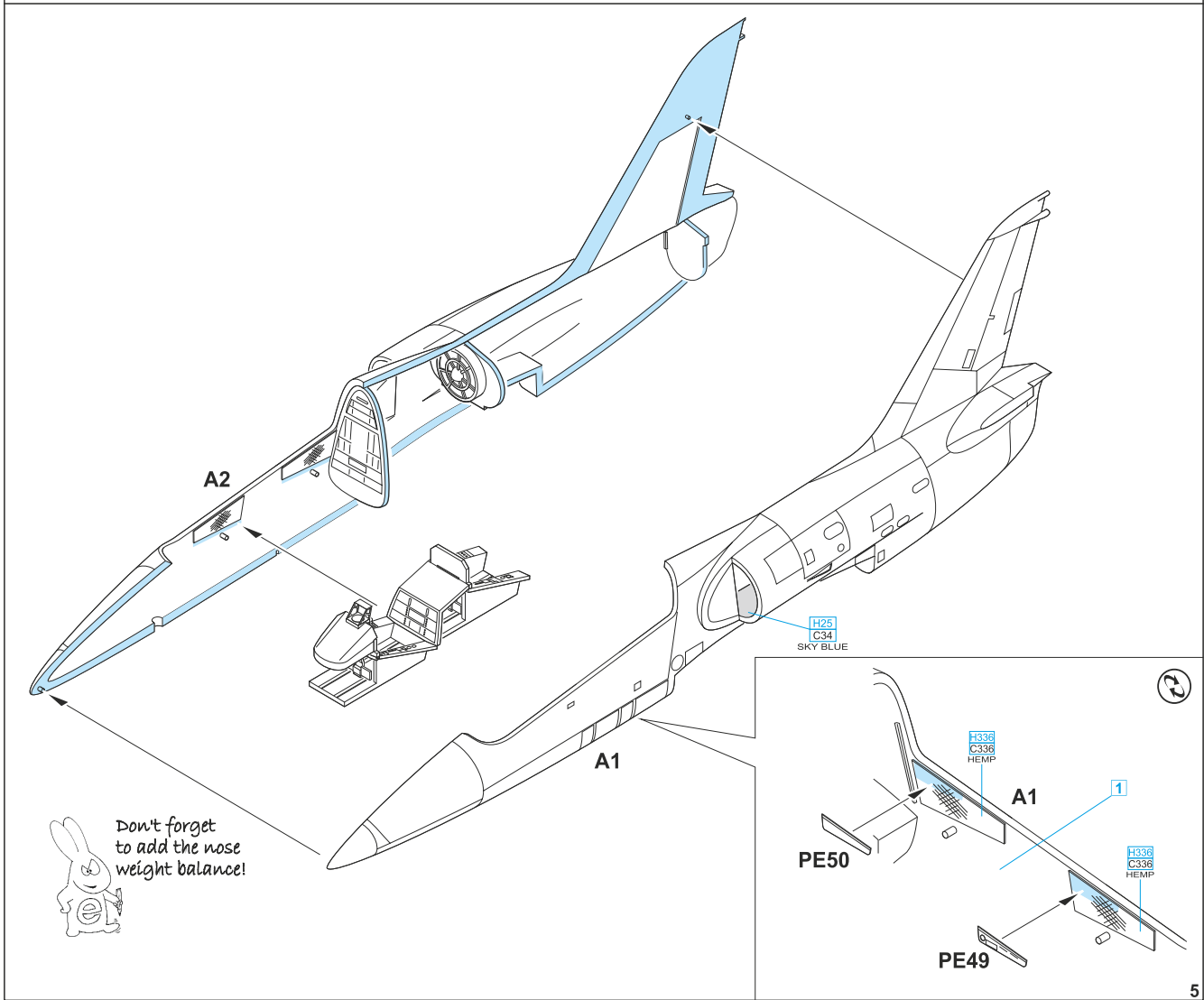
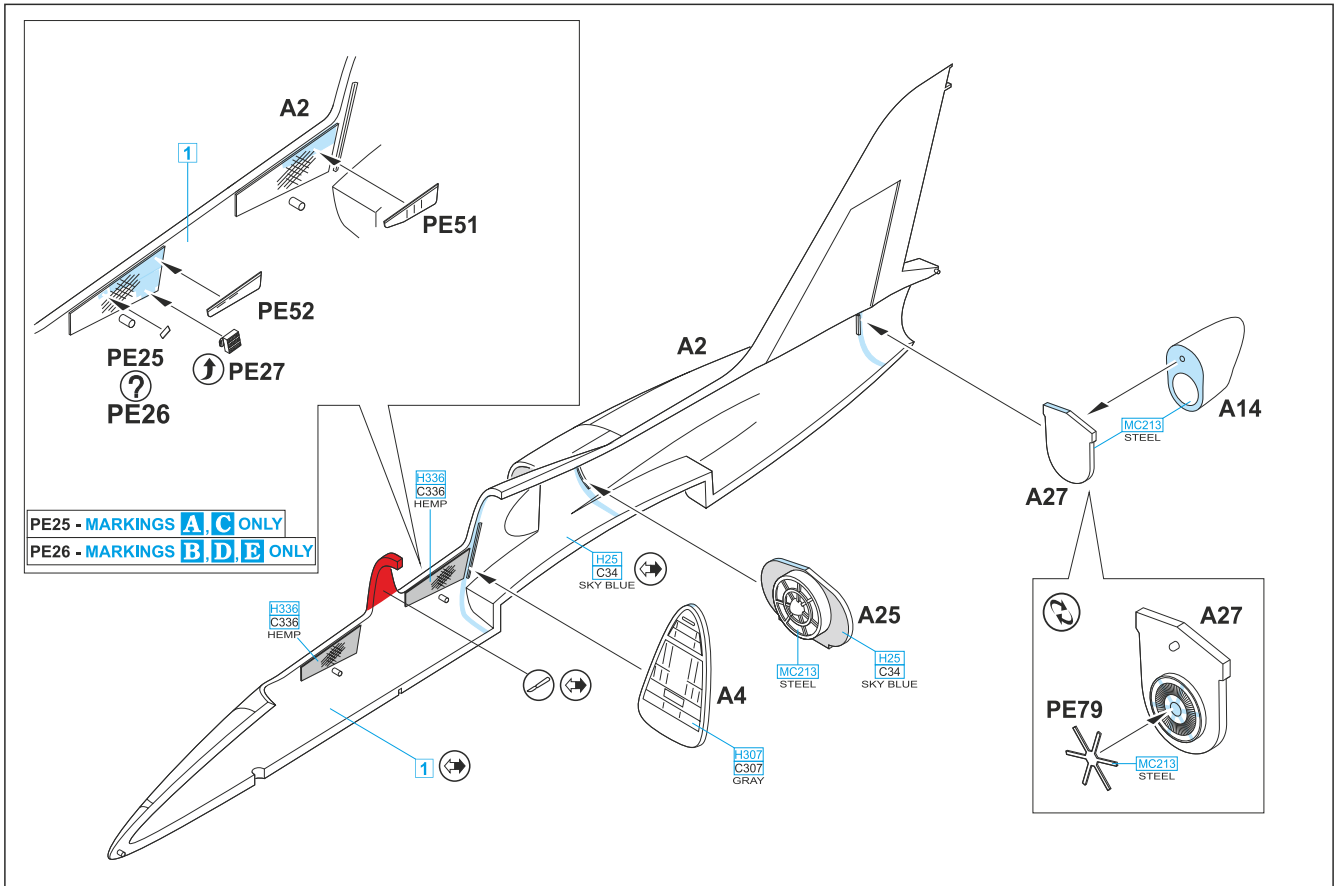


MARKINGS **D** ONLY

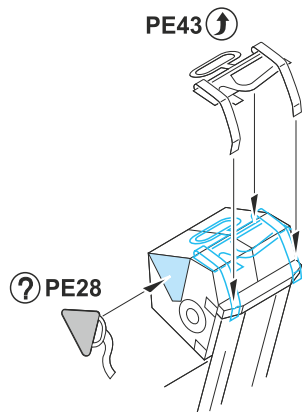
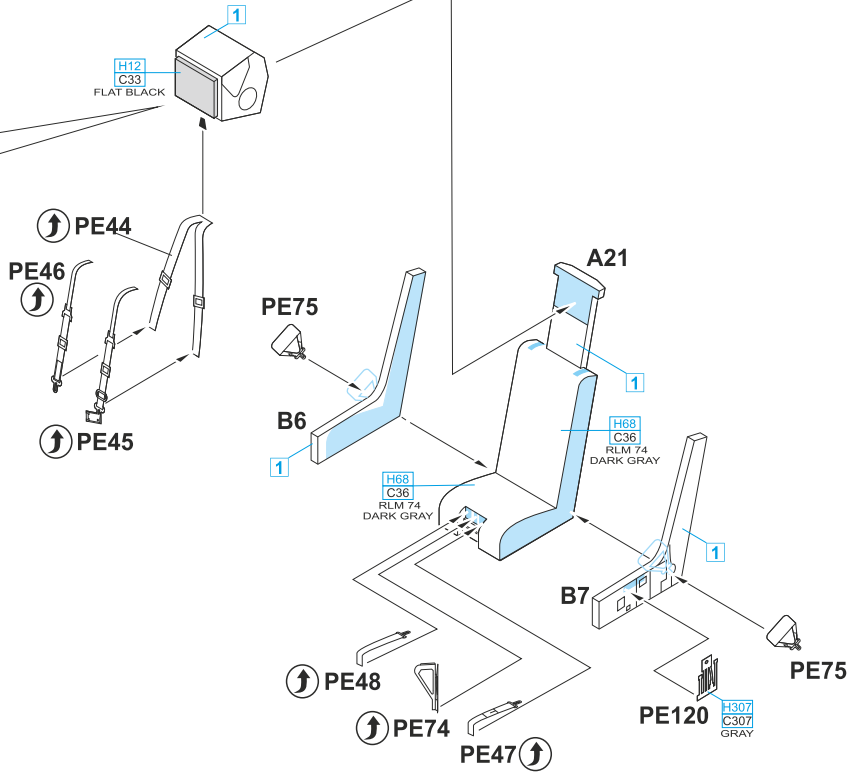
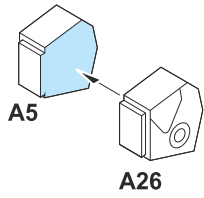


MARKINGS **A, C** ONLY

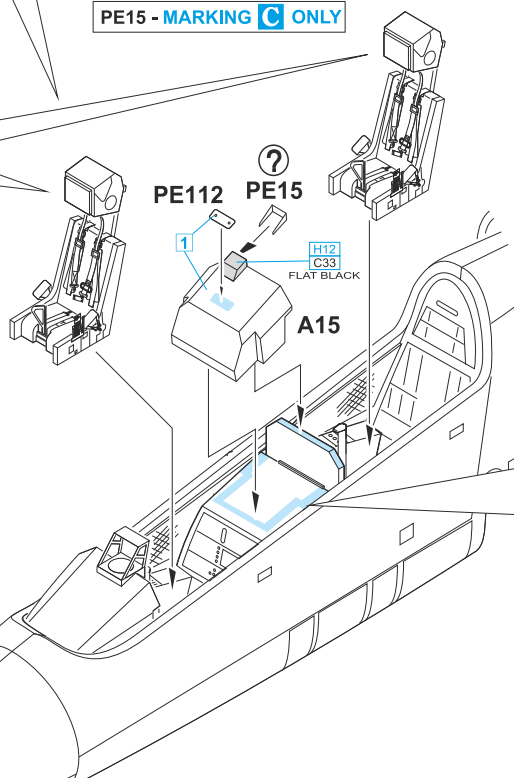




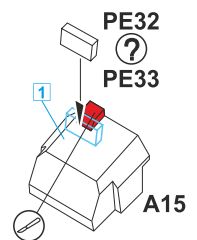
2 pcs.



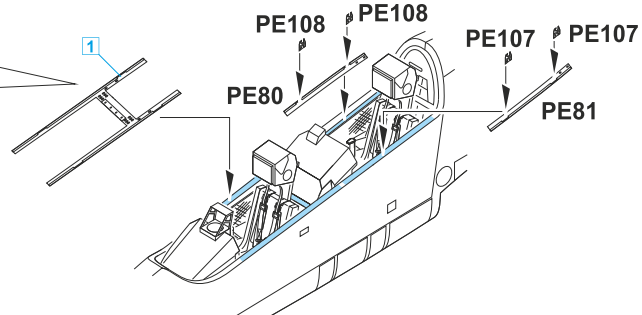
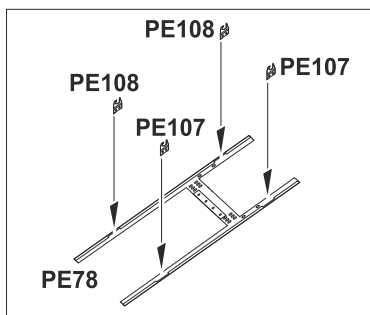
PE15 - MARKING C ONLY

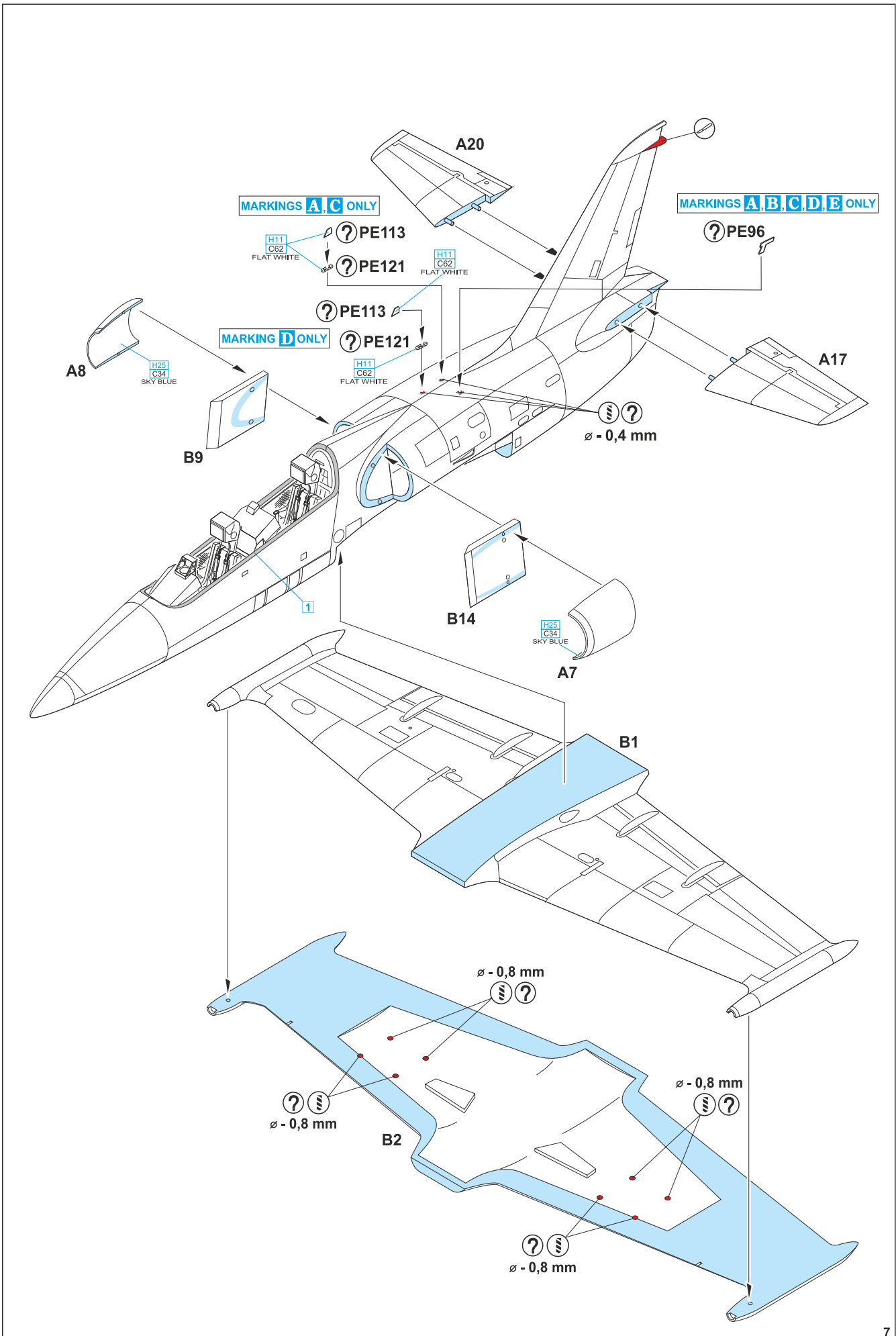


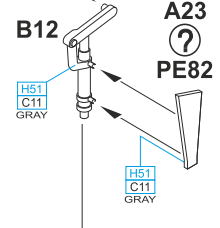
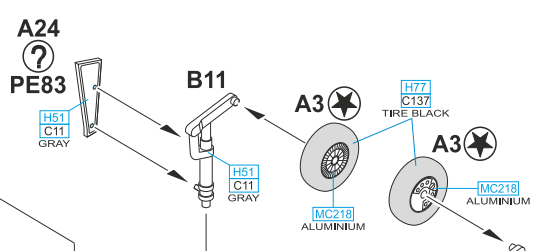
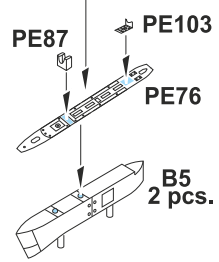
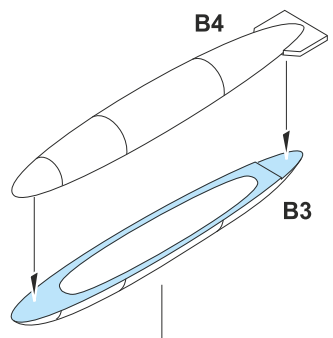
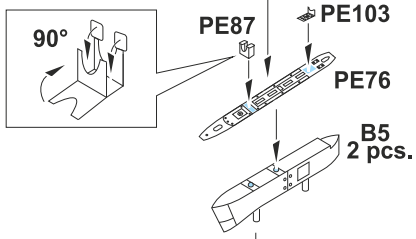
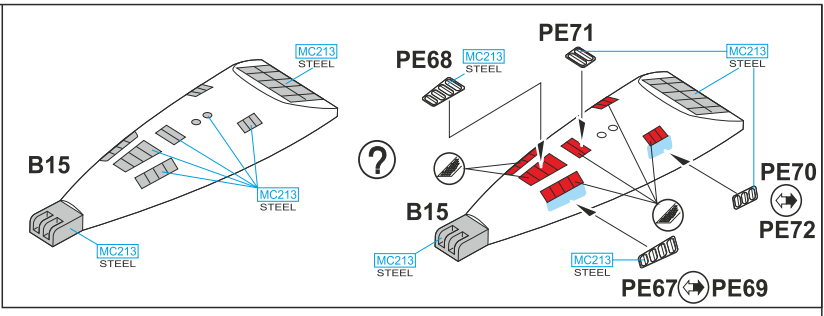
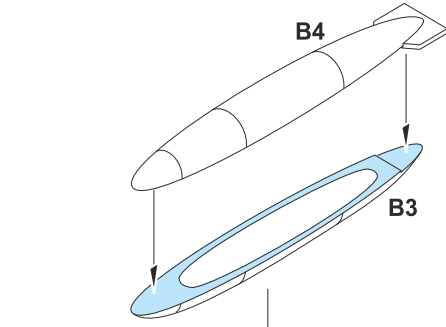
MARKINGS A, C, D ONLY



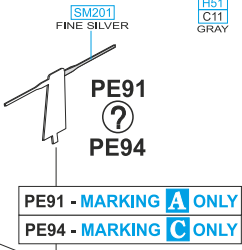
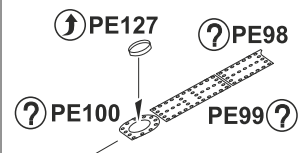
PE32 - MARKINGS A, C ONLY
PE33 - MARKING D ONLY



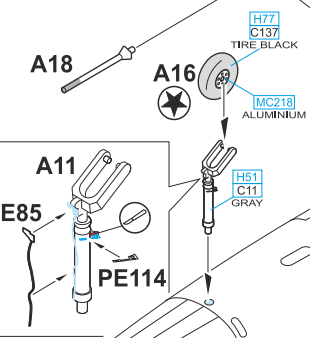
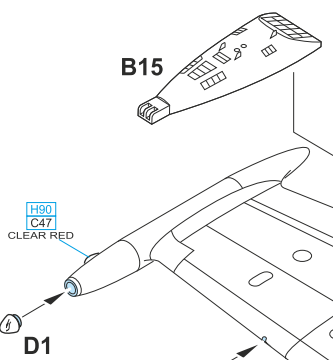




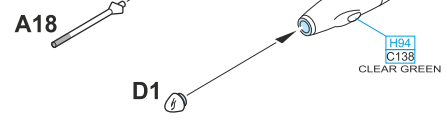
PE100 - MARKINGS A, B, C, D, E
 PE100, PE98, PE99 - MARKING F

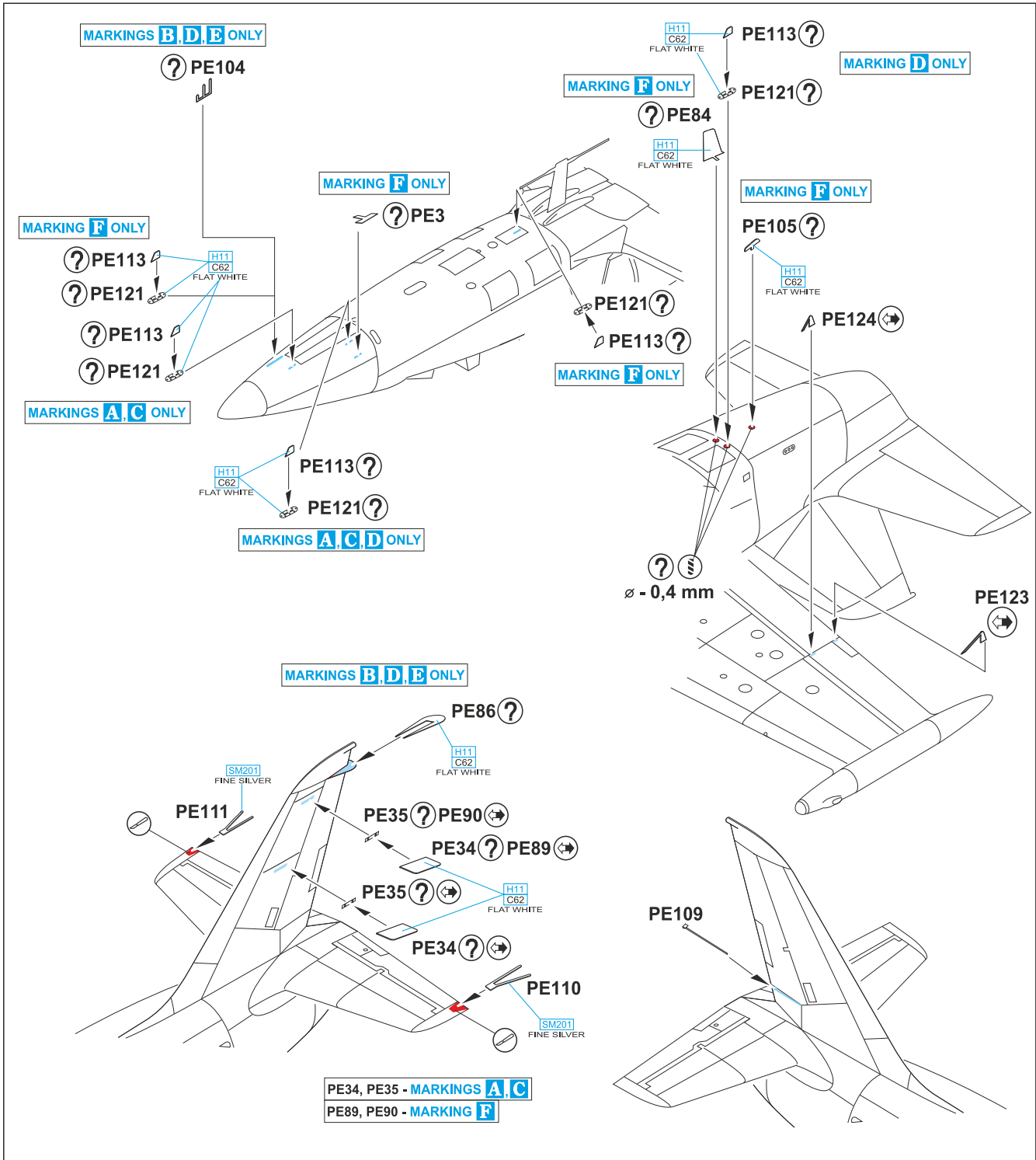


PE91 - MARKING A ONLY
 PE94 - MARKING C ONLY

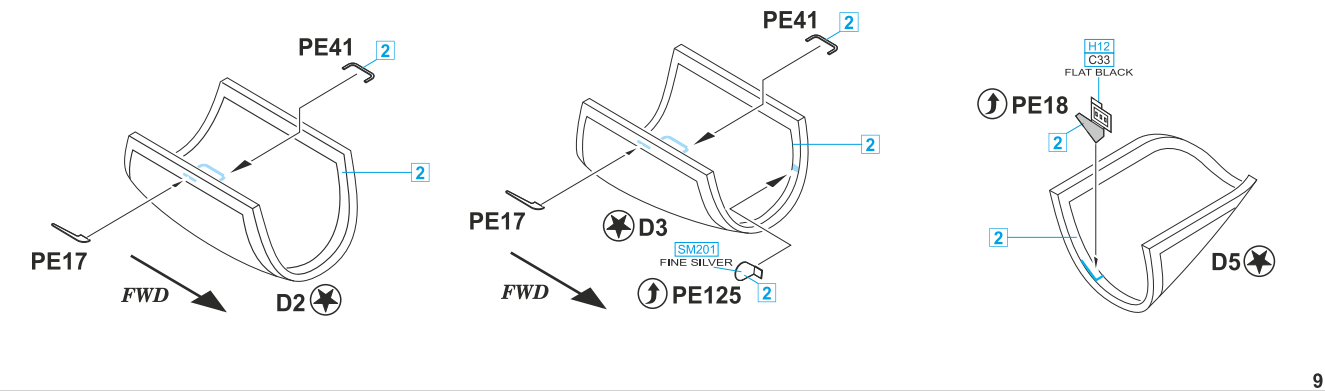


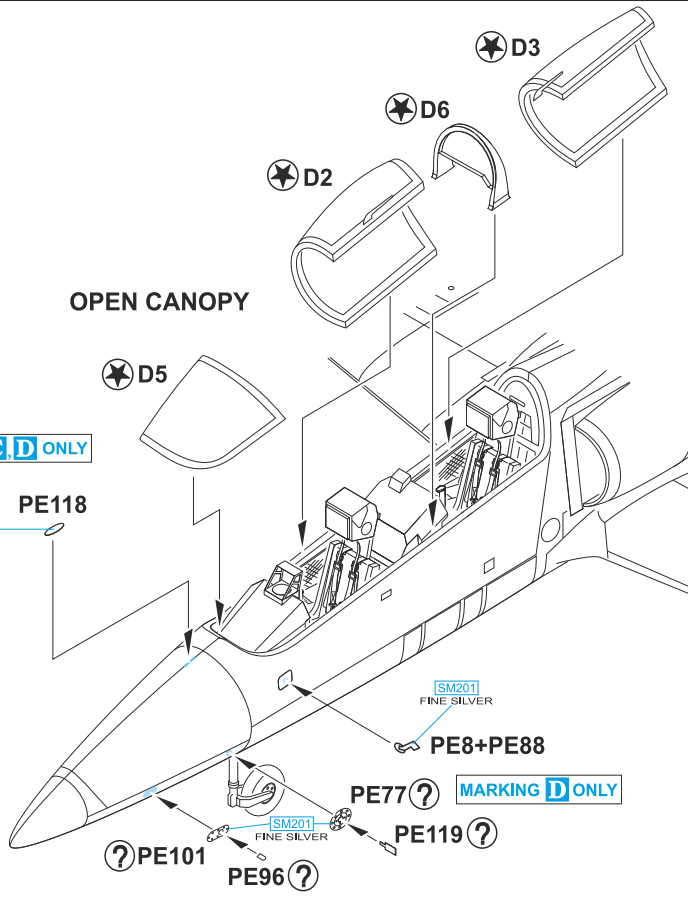
MARKINGS A, C ONLY
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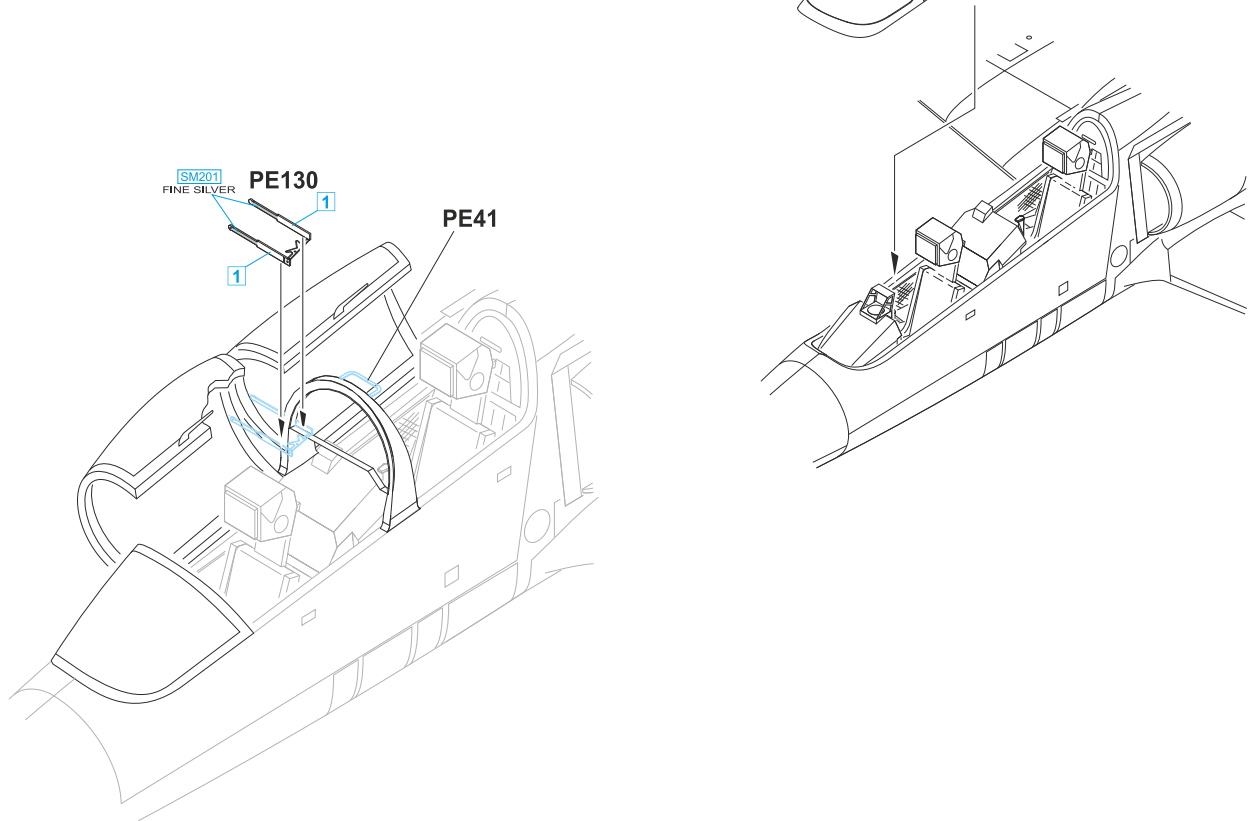
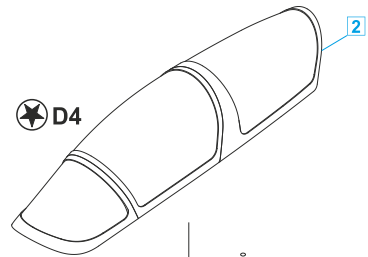


H006 C306 - MARKING E
 MEDIUM GRAY
 H006 C364 - MARKING A, B, C, D, F
 GRAY-GREEN



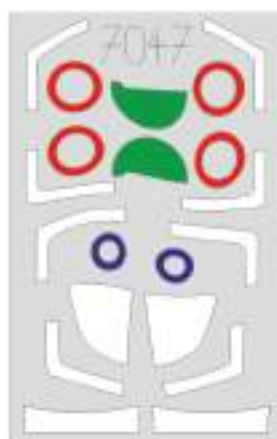
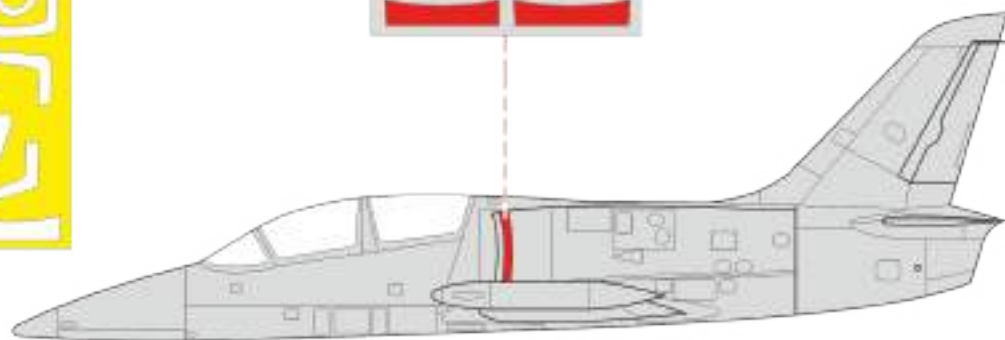


MARKINGS **A, B, C, E, F** ONLY



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MASK

7047



A3



D6

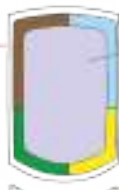
LIQUID MASK



A16



D3 ? D4



D2 ? D4

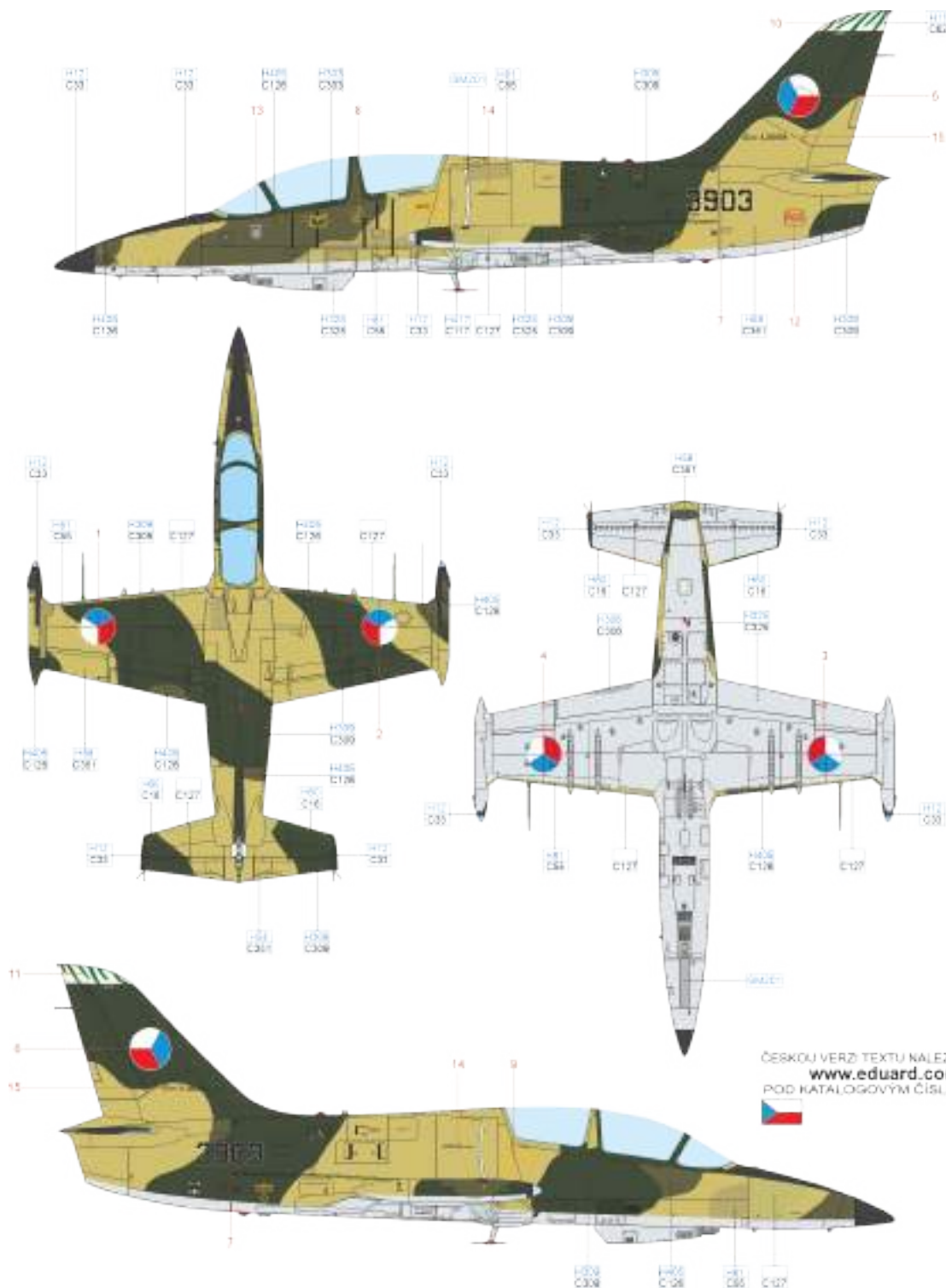


D5 ? D4

LIQUID MASK

A L-39ZA, s/n 915254, 222 Training Squadron, Náměšť nad Oslavou AFB, Czech Republic, 2008-2010

The Albatros s/n 233903 made its first flight on October 13, 1986. The aircraft served with 30 Air Attack Regiment at Pardubice, then at 32 Air Tactical Base Náměšť nad Oslavou (later redesignated 22 Air Base) and finished its career with 21 Air Tactical Base Čáslav. Among the highlights of its operations is a test flight with modified AI-25TL engine after a series of so-called titanium fires in the second half of the 1990s. Col (Ret.) Oldřich Pelcák, an astronaut of the reserve crew, participated in these tests. On October 24, 2016, Albatros No. 3903 made its last flight. After 30 years of operation, it accumulated 3,644 hours and 40 minutes of flight time. The surface of the aircraft showed significant signs of repairs, during which paints of different shades were used. The "Zebra" stripes on the top of the fin appeared in mid-October 2009 as an initiative by ground staff. The idea was made for the joke, combining the symbols of the squadrons of AFB Čáslav, i. e., tiger and a winged horse Pegasus in their emblem. The stripes were sprayed on three aircraft, namely 3903, 2344 and 2436. But only 3903 had them in green, as it flew with a green top of the fin. Nonetheless the stripes did not last too long on the aforementioned aircraft as they were ordered to be removed by high brass - to the displeasure of the ground staff.



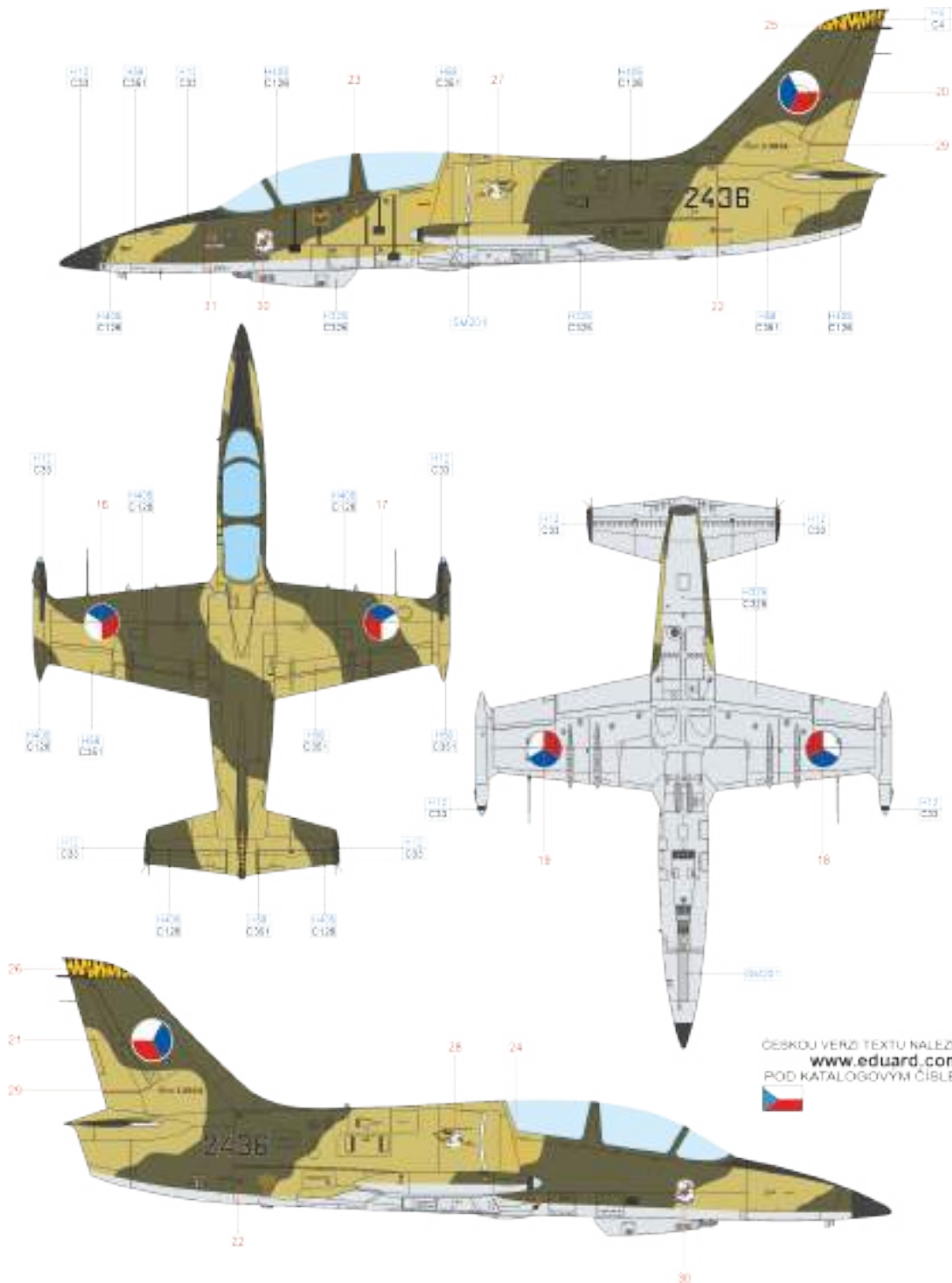
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GREEN	H309 C309	GREEN	H303 C303	RLM 76	H417 C117	KHAKI	H58 C351	KHAKI	H81 C55
FLAT BLACK	H112 C33	FLAT WHITE	H11 C62	OLIVE GREEN	H405 C126	GRAY	H306 C306	GRAY	H325 C325
								GREEN	H60 C16
								SUPER FINE SILVER 2	SM201

B L-39ZA, s/n 232436, 1 Fighter Squadron, Žatec AFB, Czechoslovakia, 1991-1993

The L-39ZA Albatros s/n 232436 was delivered to the 2 Squadron, 30 Air Regiment in Hradec Králové on December 28, 1982. During the autumn of 1984 it was transferred to the 11 Sqn in Žatec and consequently was relocated to the 5 Sqn at Pilsen-Líně airbase at the end of November 1984. It was used in the system of the western border air defense, in one case with the use of live weapons. This incident occurred on September 28, 1985, when Lt. Piskatý took off to take an action against US AH-1S Cobra helicopter. The pilot of the Albatros fired S-5 unguided missiles at the helicopter in the area of Knížecí Pláně over Šumava mountains. Three years later, on April 10, 1988, the same aircraft, flown by Col. Petřík, took off against West German sport aircraft with a pair of inexperienced pilots who were forced to land at the airport in Karlovy Vary. After the first overhaul at LOT Trenčín in 1989, the 2436 received "tiger" markings and participated in events in the UK. After the disbandment of the 5 Sqn in 1991 and then the 11 Sqn in 1993, it changed several units. It served with the 4 Independent Fighter Squadron, initially based in Přešov and then in Čáslav. From January 1995 it served with the 41 Fighter Sqn at the 4 Fighter AB in Čáslav and on January 30, 2001, it was transferred to the 32 Tactical Air Base in Náměšť nad Oslavou. After a collision on September 15, 2007, the 2436 was decommissioned with a total of 3,926 hours flown and 5,138 landings. Since 2018 it has been in the collections of VHÚ Praha.



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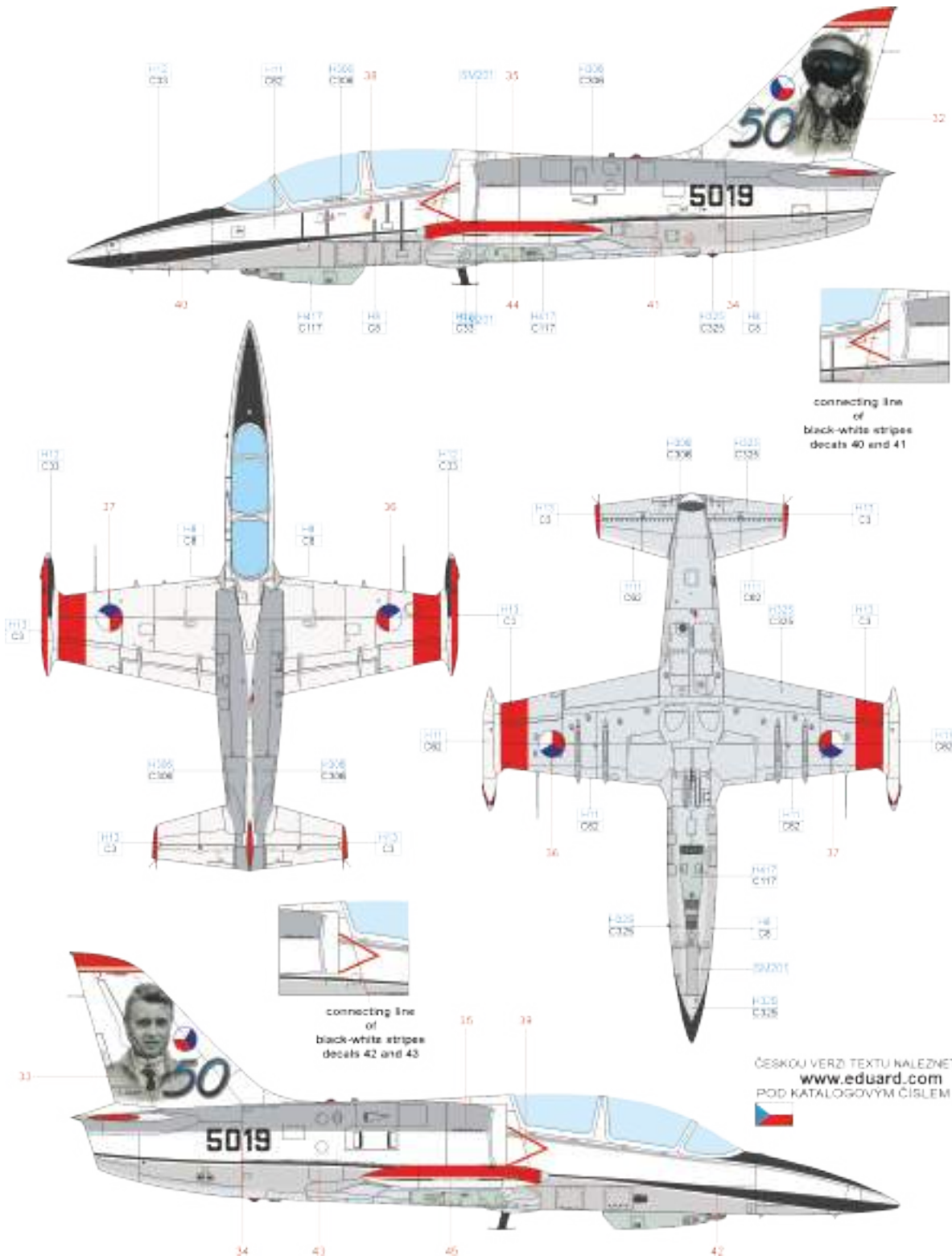


FLAT BLACK H12 C33 OLIVE GREEN H405 C126 KHAKI H58 C351 GRAY H325 C325 YELLOW H4 C4 SUPER FINE SILVER 2 SM201

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C L-39ZA, s/n 035019, 213 Training Squadron, Čáslav AFB, Czech Republic, 2008-2010

On November 4, 1968, a test pilot of the VZLU Ing. Rudolf Duchoň made a maiden flight of the first prototype of the Aero L-39 Albatros trainer marked X-02. On the occasion of the 50th anniversary of this event, the Albatros 035019, belonging to the 213 Training Squadron of the 21 Tactical Air Base in Čáslav, received an anniversary marking, which was a modification of the X-02 prototype's livery from the period of its first flights, i.e. white-gray-red-black colors. On the left side of the vertical fin a depiction of a Slovak Air Force pilot in his current gear was painted with a reflection of the new generation L-39 on the visor of his helmet. On the right side there was portrayed Rudolf Duchoň, as he was taken on the photo on the day of the first L-39 takeoff.

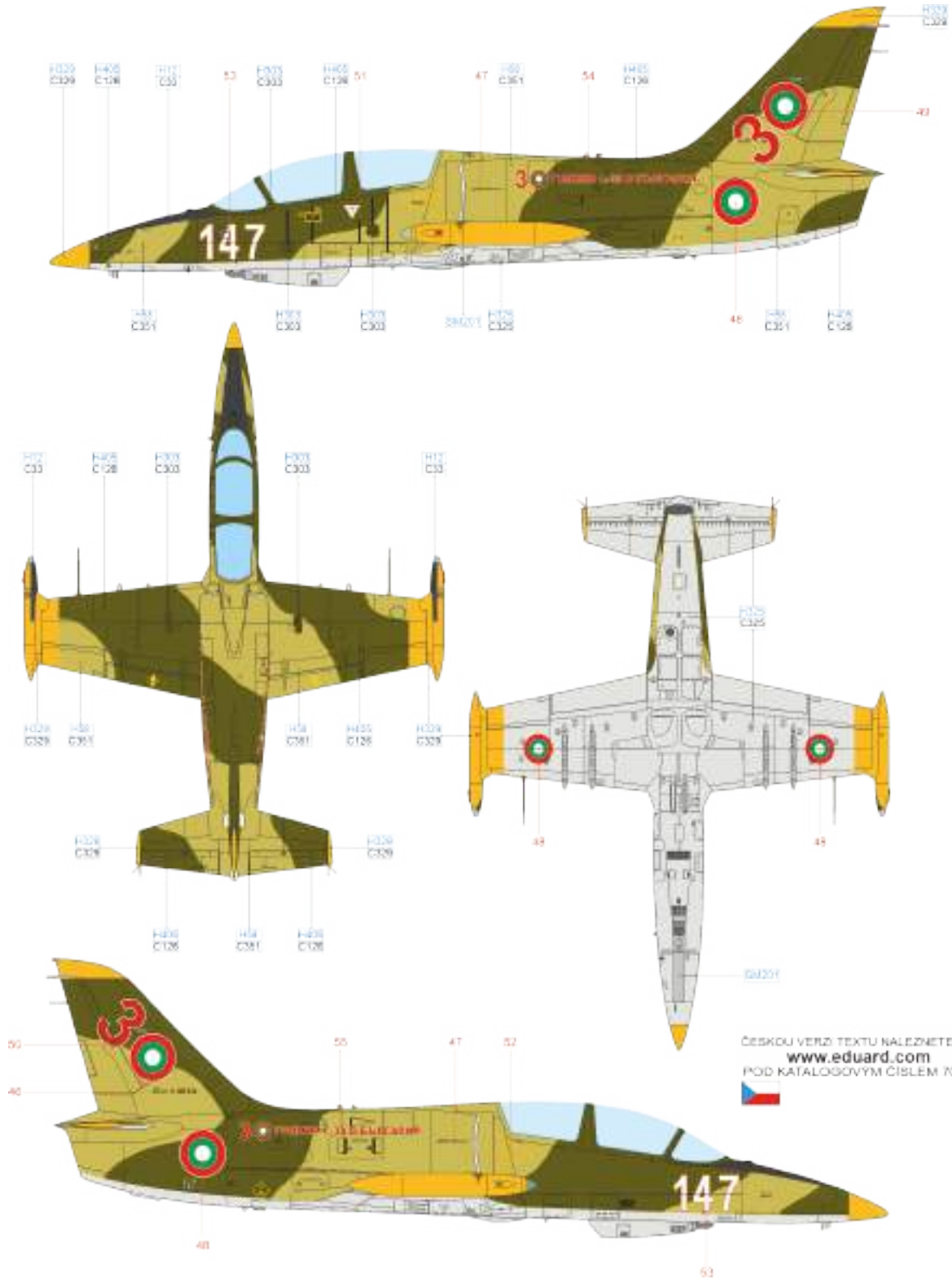


FLAT WHITE	H11 C62	SUPER FINE SILVER 2	SM201								
FLAT BLACK	H12 C33	RED	H13 C3	GRAY	H325 C325	GRAY	H306 C306	SILVER	H8 C8	RLM 76	H417 C117

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D L-39ZA, s/n 035147, 299 brTA, Graf Ignatievo AB, Bulgaria, 2015

The Bulgarian Air Force ordered thirty-six L-39ZAs, which were delivered by the manufacturer Aero Vodochody between 1986 and 1990. They were used for advanced pilot training and as light attack aircraft by air units at Kamenets, Bezmer/Yambol and Graf Ignatievo airfields. Between 1995 and 2000, a number of L-39s were relocated to fighter bases to operate alongside fighter aircraft. These bases were located at Cheshengirovo, Dobrich and Ravens airfields. In 1997, six of these were sold to Cambodia and in 2001, six more were sold to the USA. A small number of L-39 trainers are permanently stationed at Graf Ignatievo to supplement training activities and often participate in combined missions with MiG-29s and F-16s.

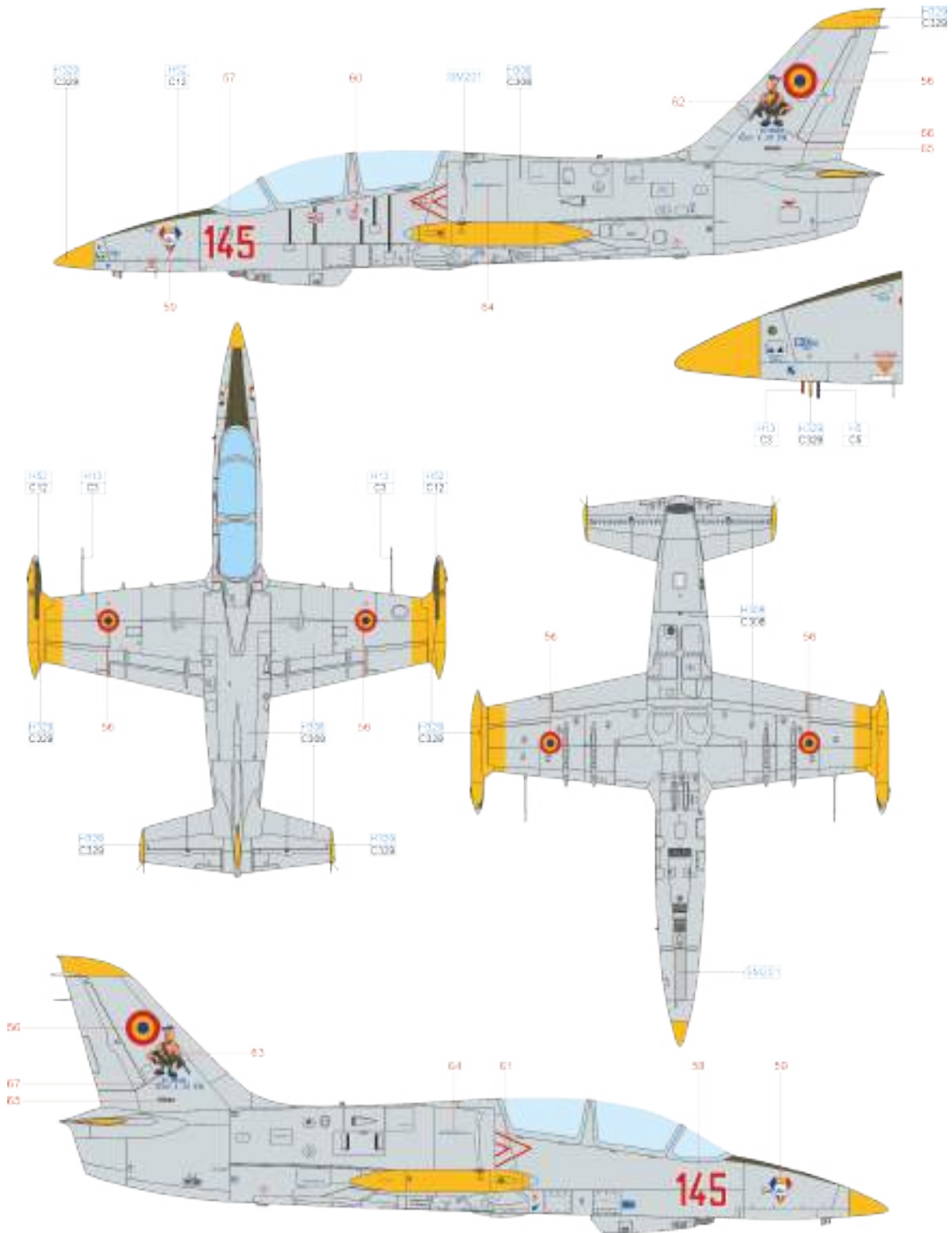


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GREEN	H303 C303	OLIVE GREEN	H405 C126	KHAKI	H58 C351	GRAY	H325 C325	YELLOW	H329 C329	SUPER FINE SILVER 2	SM201
FLAT BLACK	H12 C33										

E L-39ZA, s/n 533218, Military Flight Academy, Grupul 20, Borcea-Fetesti AB, Romania, 2012

L-39ZA aircraft operated in the Romanian Air Force from 1982 to 2007. The first L-39ZA Albatros arrived in Romania in early December 1981 and immediately joined the newly established 20 Fighter and Fighter-Bomber Group's flight school, operating out of Boboc Airport. A total of 32 units of the L-39ZA variant were purchased. The aircraft with fuselage number 145 entered service on April 6, 1985 and made its last flight in December 2007. It was then sold to a private entity.



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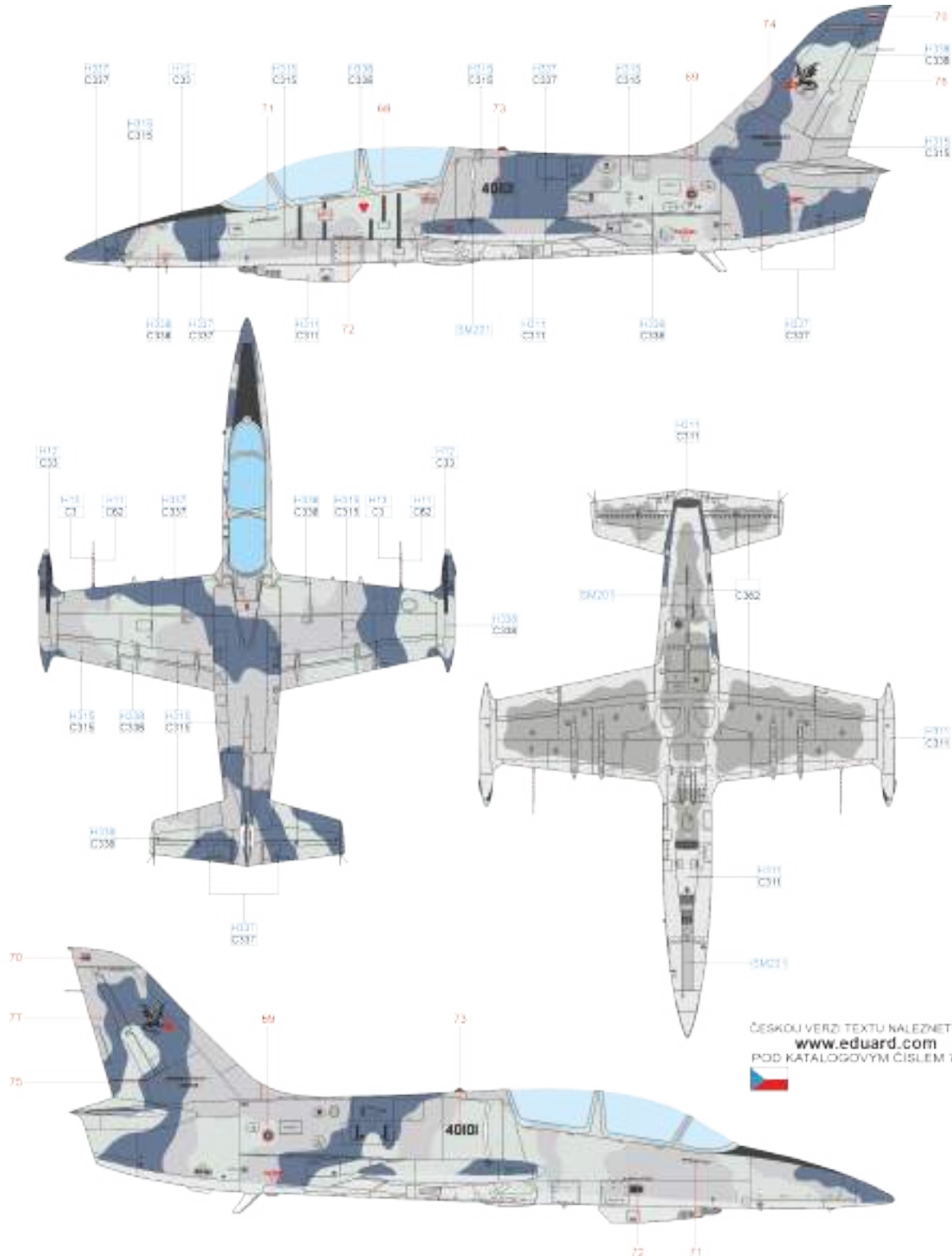


OLIVE DRAB	H52 C12	GRAY	H308 C308	YELLOW	H329 C329	RED	H13 C3	BLUE	H5 C5	SUPER FINE SILVER 2	SM201
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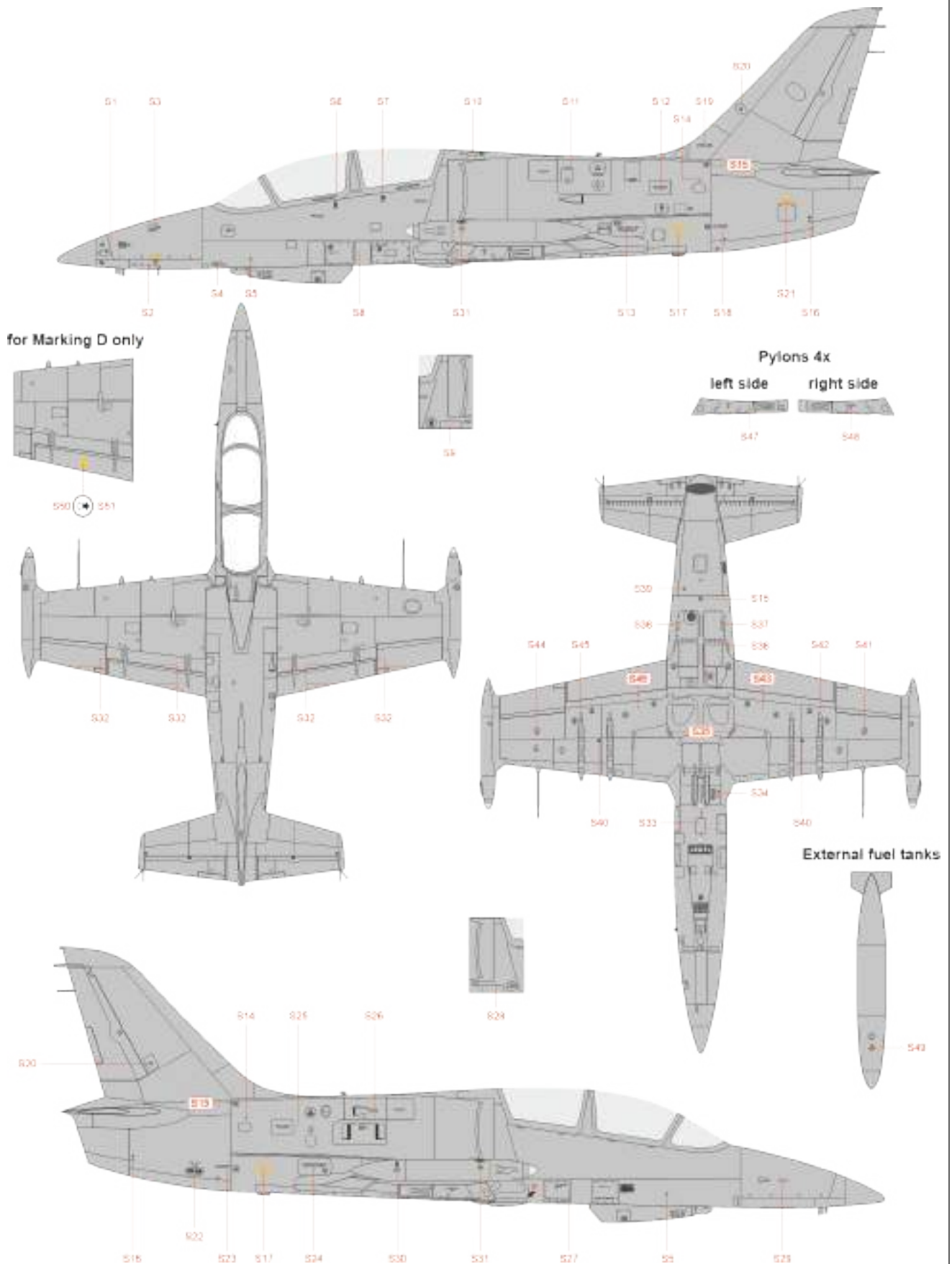
F L-39ZA/ART, s/n 533218, 411 Sqn, 3 Air Division, 41 Wing, Chiang Mai AB, Thailand, 2014

The Royal Thai Air Force operated L-39ZA/ART aircraft at two airbases. The majority of them were stationed at Korat Air Base in the central part of Thailand, which serves as an RTAF showcase, hosting foreign delegations and conducting joint exercises with neighboring countries. The second base was Takhli, located about 200 km to the west, where the aircraft were used for operational flights. The L-39ZA aircraft were initially used by the 101 and 102 Squadrons in Korat, then by the 401 Squadron in Thakli, and the 411 Squadron in Chiang Mai. The RTAF received a total of 40 L-39 aircraft by 1994, with about five lost in accidents. On the occasion of anniversaries, some aircraft were presented in special liveries featuring emblems of all four squadrons. On March 31, 2021, the Royal Thai Air Force held the ceremony on the occasion of the Aero L-39ZA/ART retirement from the active duty. The last operator was the 411 Squadron, 41 Wing, based in Chiang Mai.



FLAT WHITE	H11 C62	RED	H13 C3	SUPER FINE SILVER 2	SM201
FLAT BLACK	H12 C33	GRAY	H311 C311	GRAY	C362
		GRAY	H337 C337	GRAY	H315 C315
		BLUE	H338 C338		

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