

L-39C ALBATROS

eduard

1/72 Scale Plastic Model Kit



item No. 7044

ProfiPACK
edition

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 strojírna 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-39Z0 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 Suhomel 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-39Z0 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.



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. SYMBOL * INSTRUKTION SINNBILDEN * SYMBOLES * 記号の説明



OPTIONAL
VOLBA



BEND
OHNOUT



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



TEILE

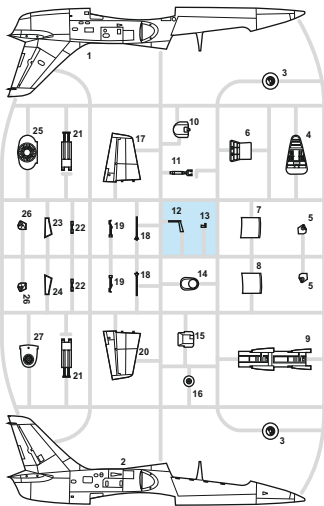


PIÈCES



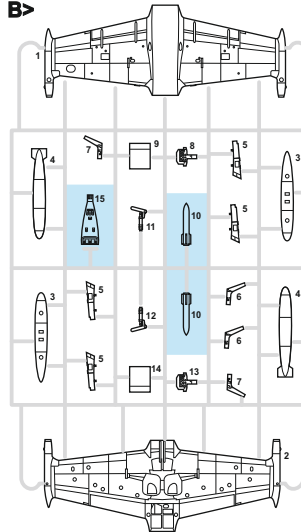
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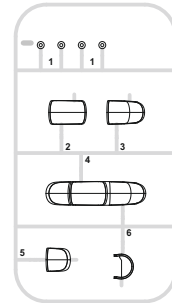


PLASTIC PARTS

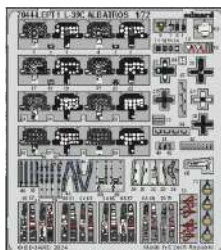
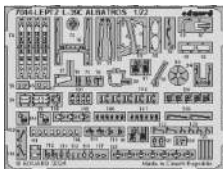
B>



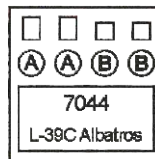
D>



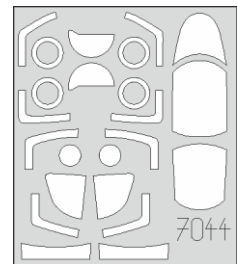
PE - PHOTO ETCHED DETAIL PARTS



FILM



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MASK



-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



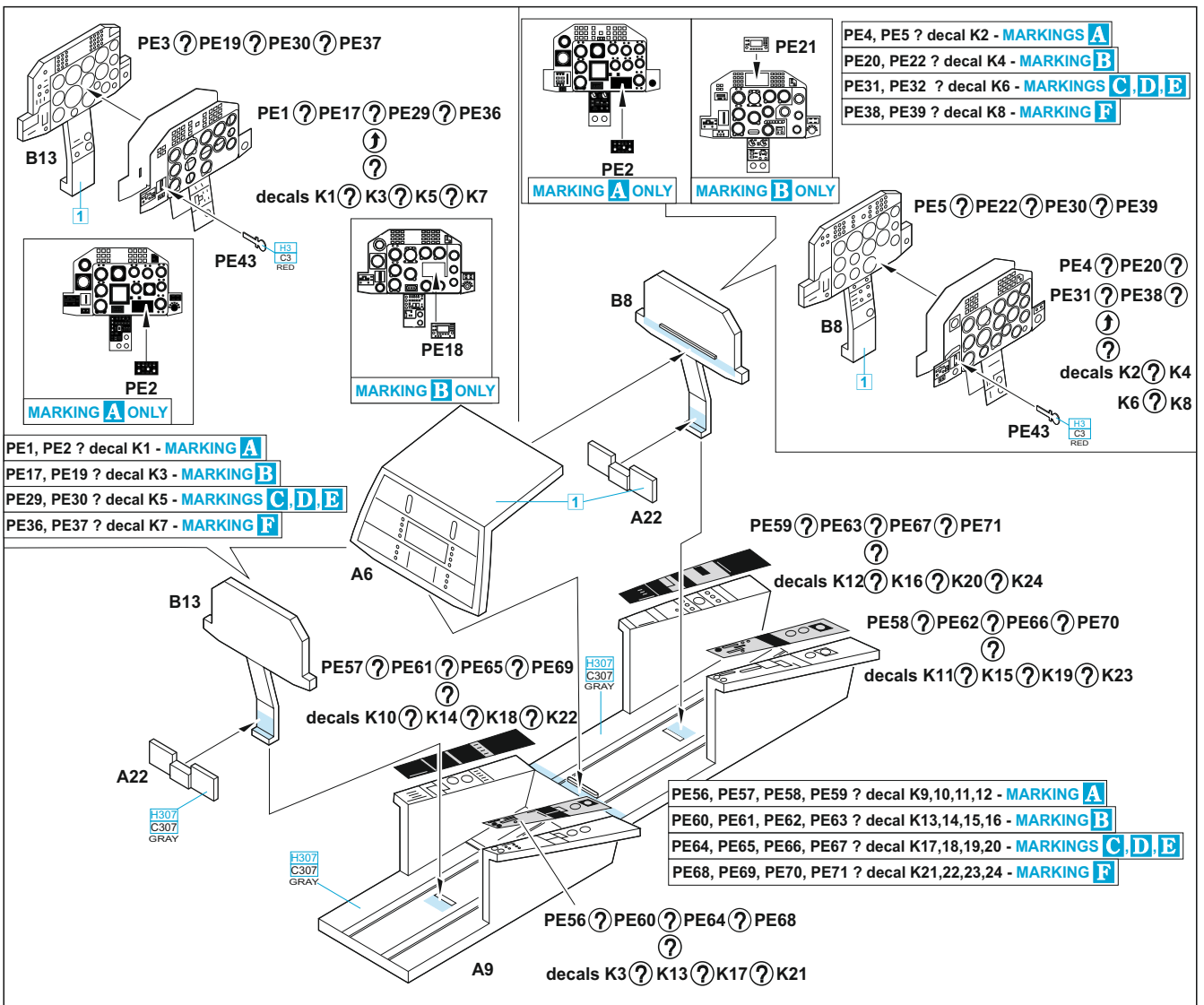
PEINTURE



色

GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H1	C1	WHITE
H2	C2	BLACK
H3	C3	RED
H4	C4	YELLOW
H5	C5	BLUE
H6	C6	GREEN
H12	C33	FLAT BLACK
H18	C28	STEEL
H20	C182	FLAT CLEAR
H25	C34	SKY BLUE
H50	C135	GREEN
H51	C11	LIGHT GREY
H57	C73	AIRCRAFT GRAY
H58	C351	INTERIOR GREEN
H66	C119	RLM79 SAND YELLOW
H68	C36	RLM74 DARK GRAY
H77	C137	TIRE BLACK
H85	C45	SAIL COLOR
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN
H302	C302	GREEN

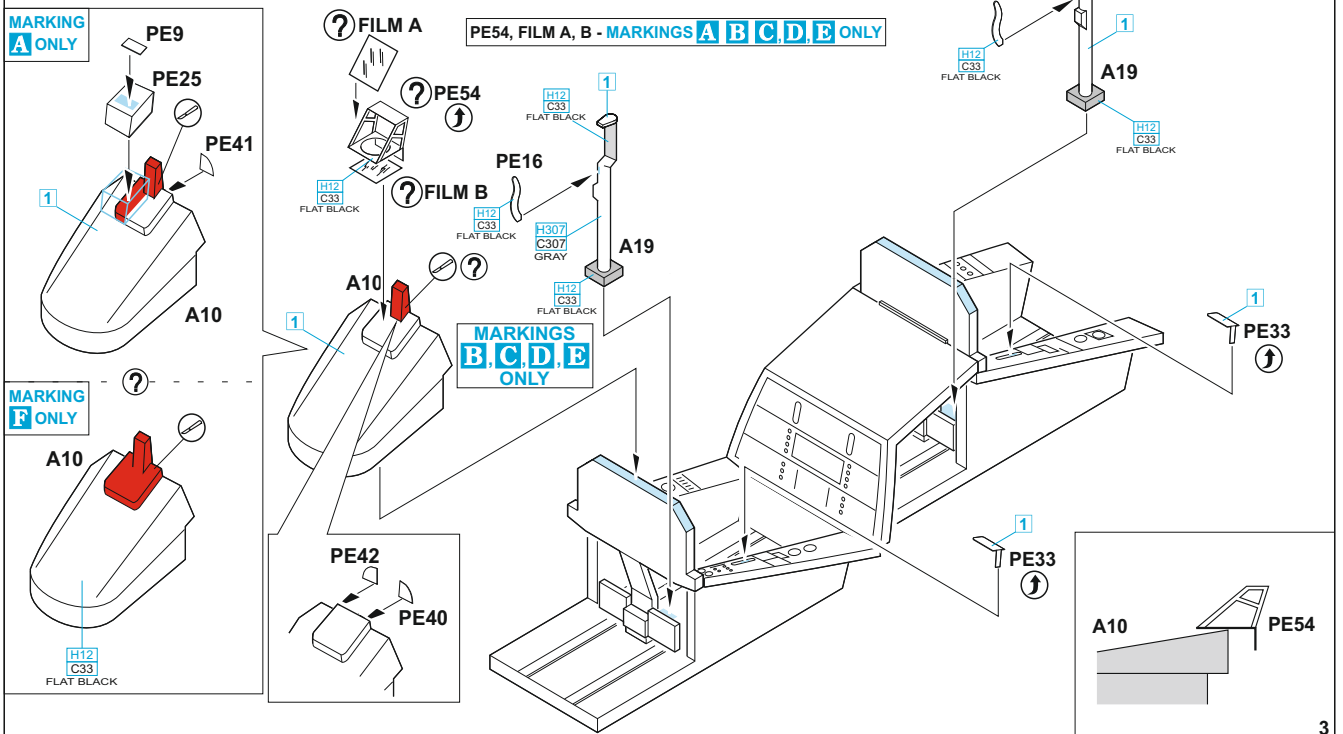
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H303	C303	GREEN
H304	C304	OLIVE DRAB
H305	C305	GRAY
H306	C306	MEDIUM GRAY
H307	C307	GRAY
H308	C308	GRAY
H309	C309	GREEN
H310	C310	BROWN
H329	C329	YELLOW
H336	C336	HEMP
	C74	AIR SUPERIORITY BLUE
	C364	AIRCRAFT GRAY-GREEN
	C391	INTERIOR GREEN
Mr.METAL COLOR		
MC211		CHROME SILVER
MC213		STEEL
MC214		DARK IRON
MC218		ALUMINIUM
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER
SM204		SUPER STAINLESS 2

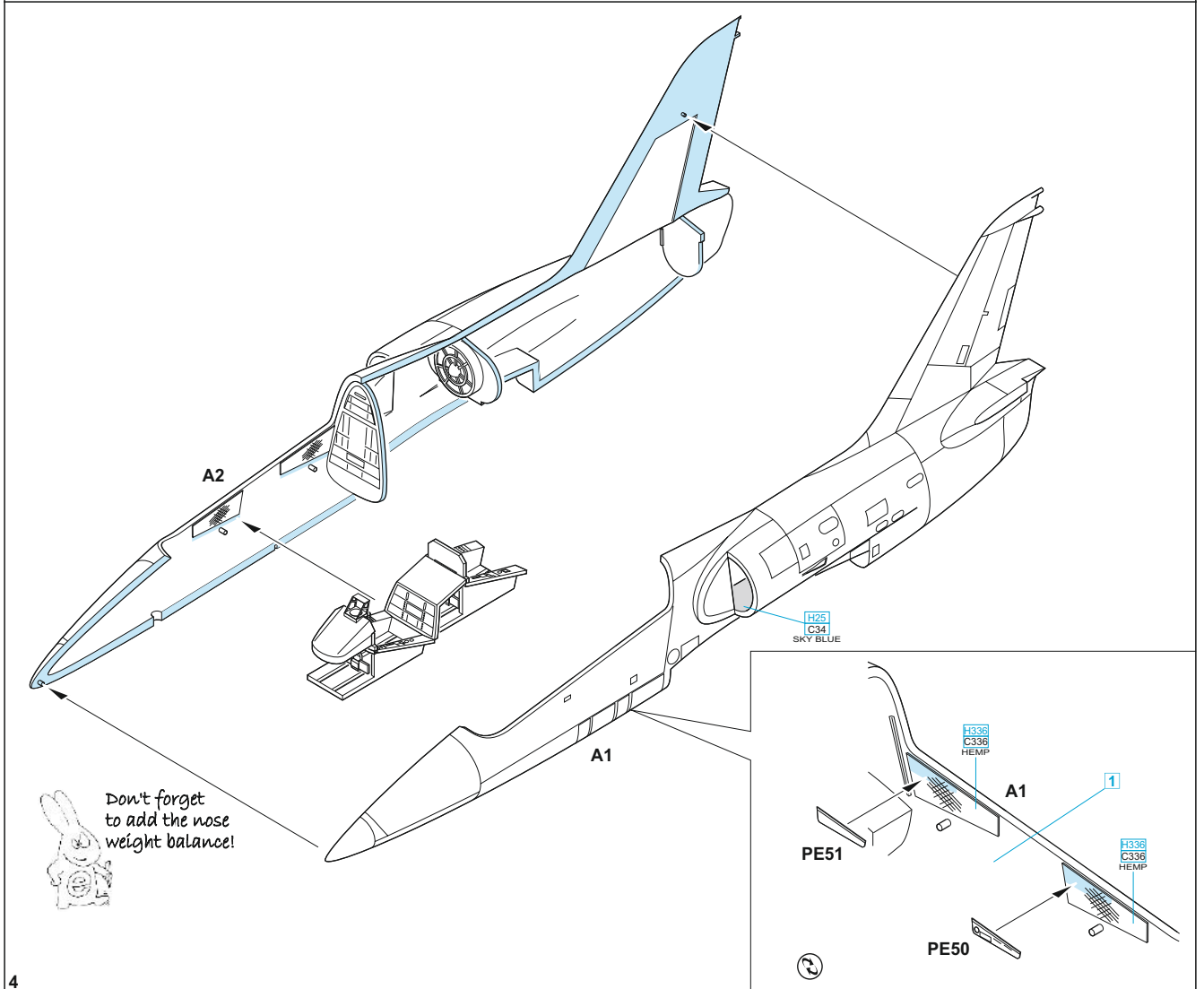
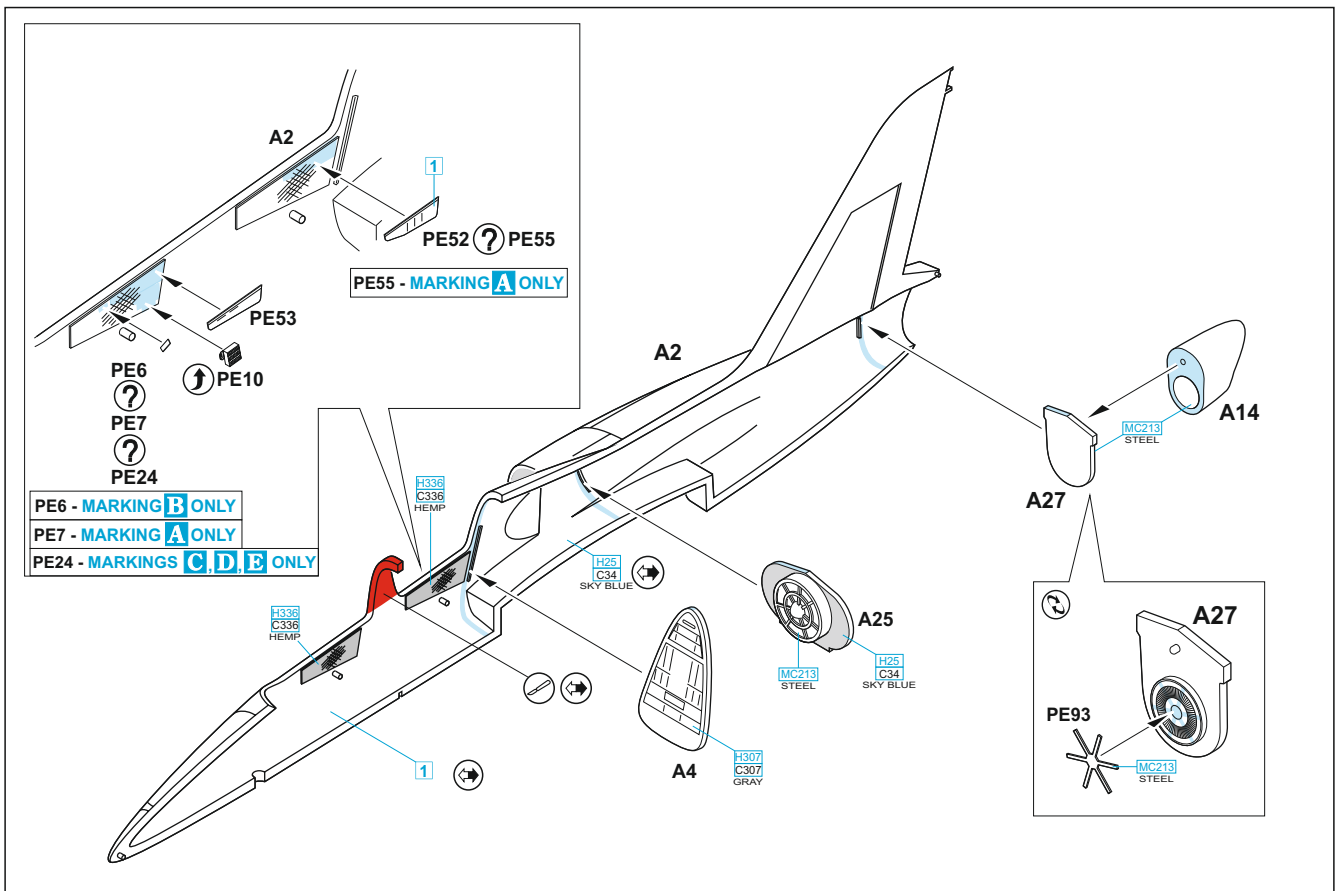


1 = H307 C307 GRAY - MARKING A

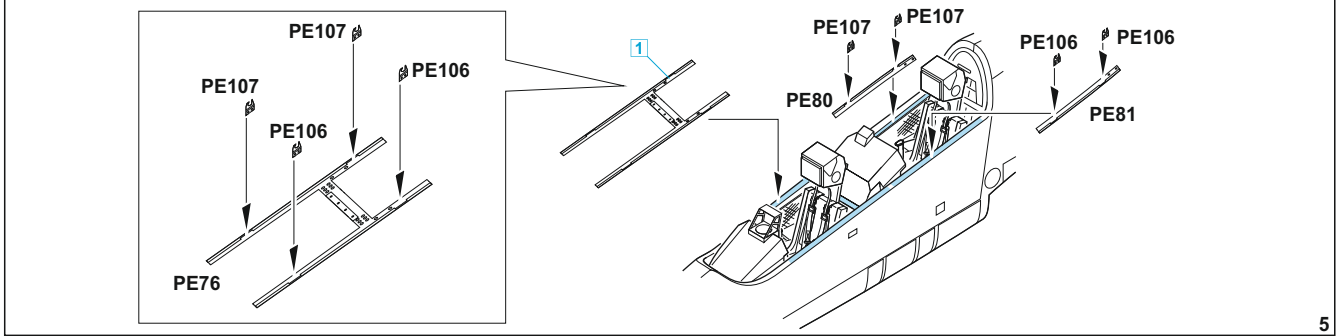
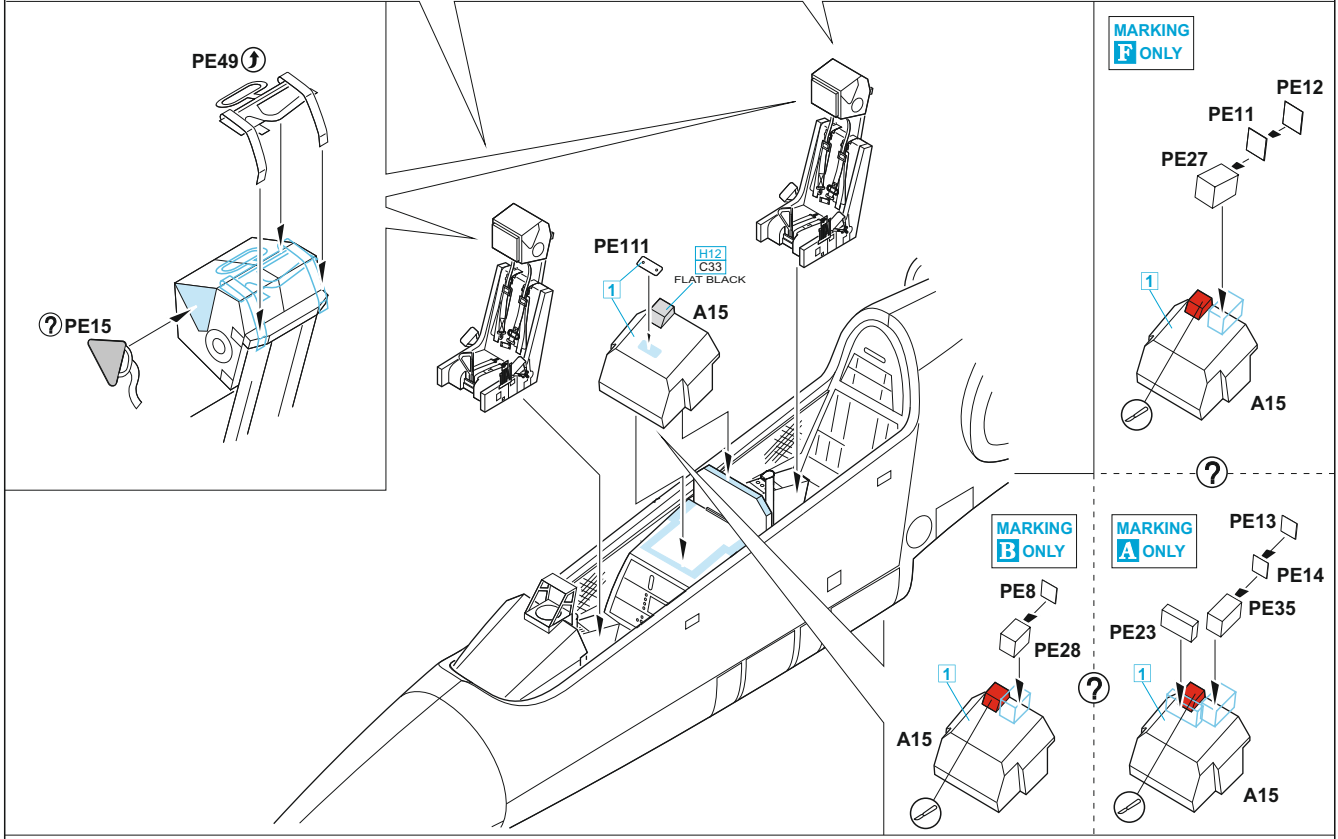
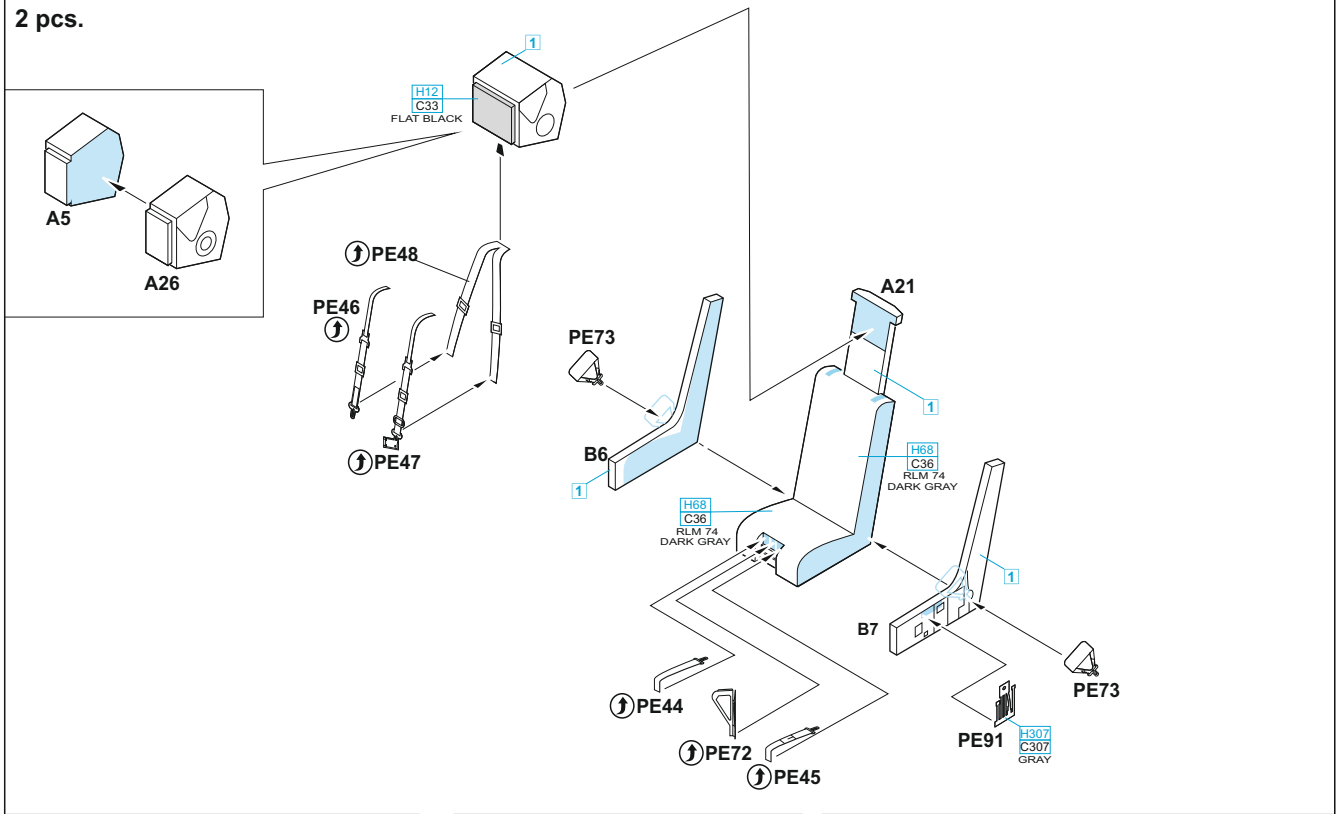
C364 GRAY-GREEN - MARKINGS B, C, D, E

H306 C306 MEDIUM GRAY - MARKING F





2 pcs.



MARKINGS C, D, E ONLY

? PE79

MARKINGS A ONLY

? PE114

? PE120

MARKINGS A, B ONLY

? PE114

? PE120

MARKINGS F ONLY

? PE114

? PE119

? PE120

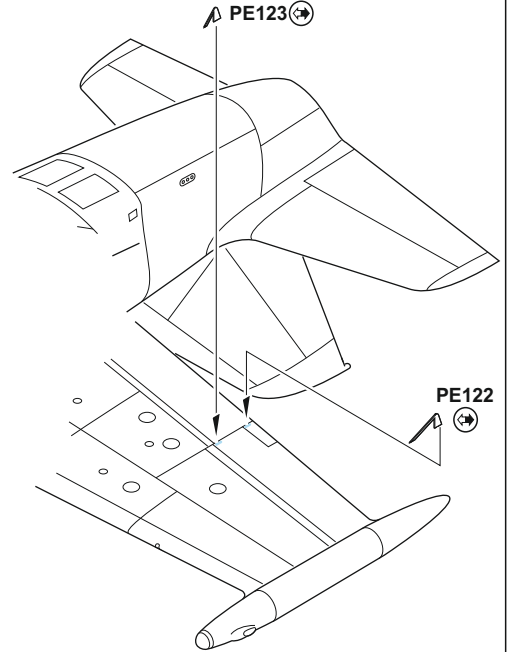
? PE114

MARKING A ONLY

? PE114

? PE120

MARKINGS B ONLY



MARKINGS A, B ONLY

? PE88

? PE101

PE110

PE87 ?

MARKINGS C, D, E ONLY

? PE101

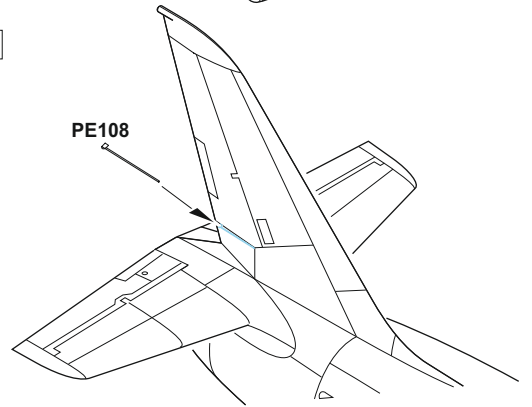
MARKINGS A, B ONLY

PE89 ?

wire ?

wire - MARKINGS F ONLY

PE109



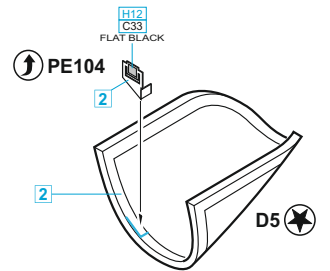
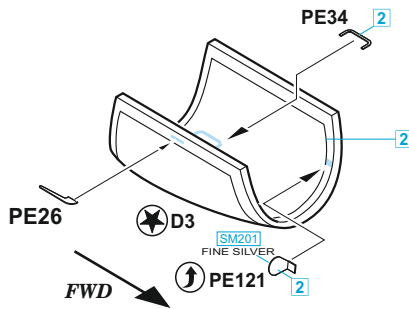
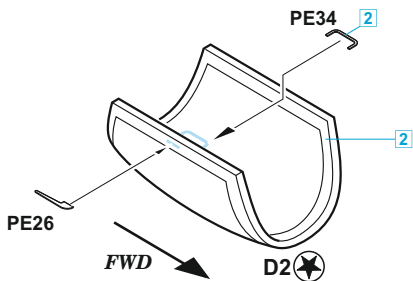
2 =

C300 - MARKINGS A, B, C, D, E

C307 - GRAY

C391 - MARKING F

INTERIOR GREEN



PE116 - MARKING A ONLY
PE97 - MARKING B ONLY

OPEN CANOPY

MARKING B ONLY

MARKINGS C, D, E, F ONLY

PE97 ? PE116

? PE97

? PE105

PE95 ?

PE75 ?

MARKINGS A, B ONLY

PE117 ?

D3

D6

D2

D5

D4

CLOSED CANOPY

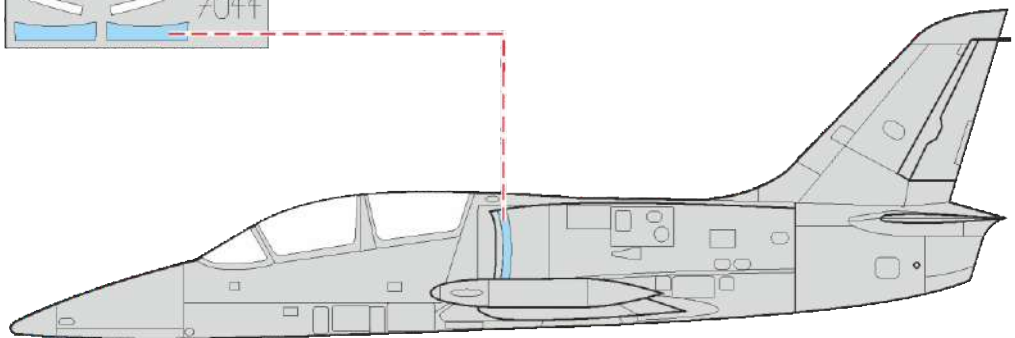
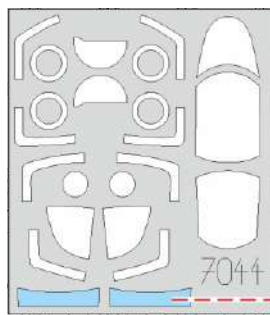
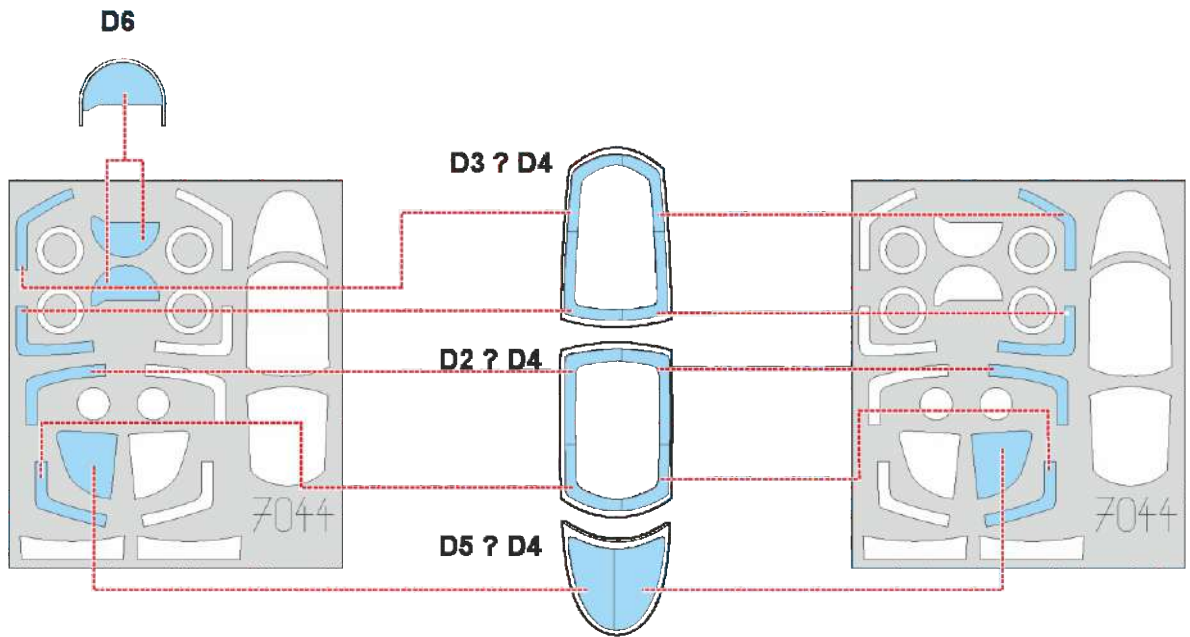
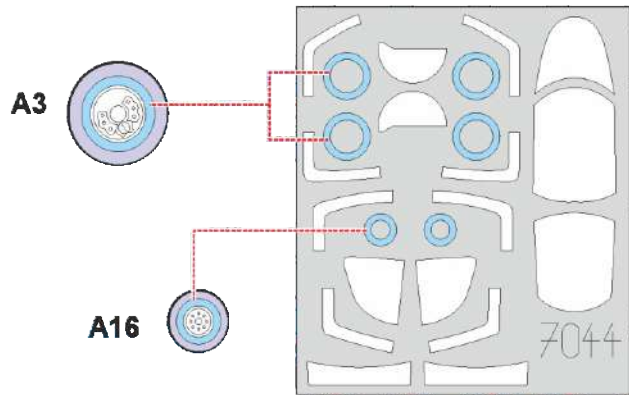
SM201
FINE SILVER

PE94

1

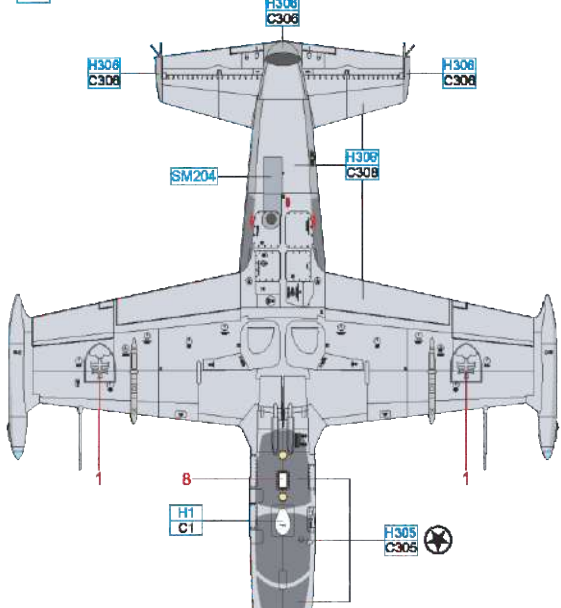
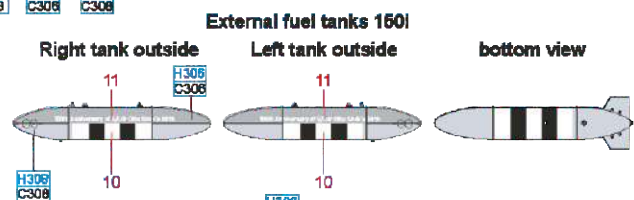
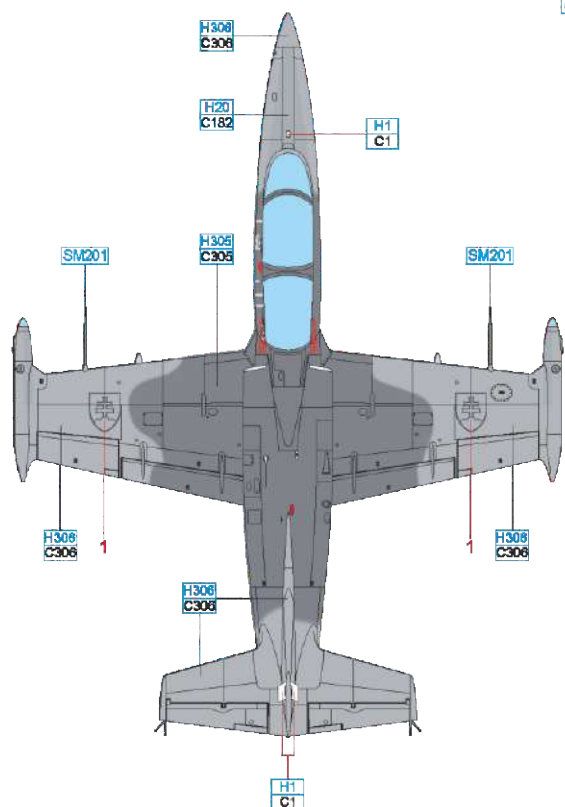
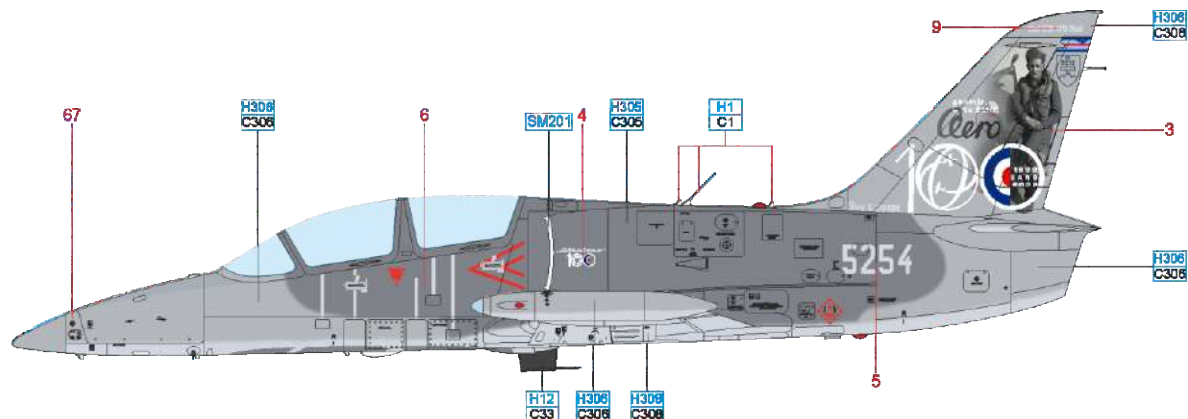
PE34

2

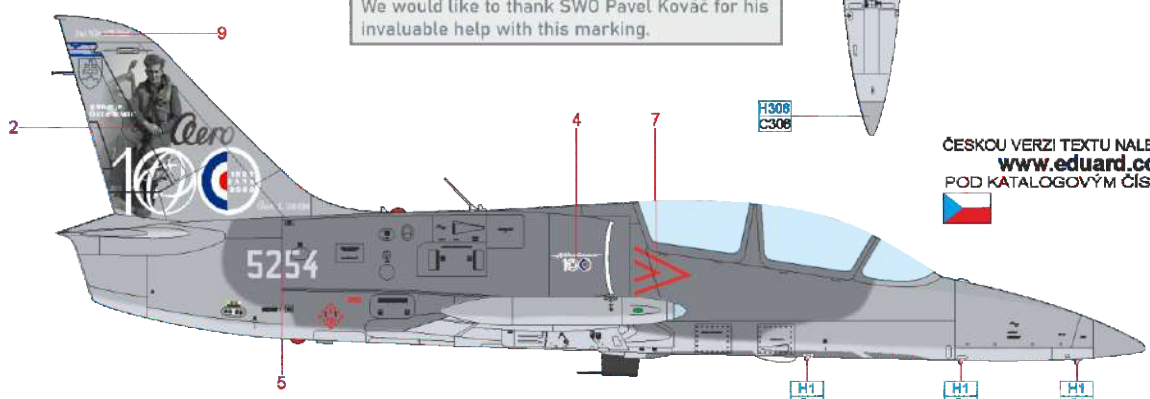


A L-39CM, s/n 915254, 2 Fighter Squadron, 81 Wing, Slovak Air Force, Sliach AFB, Slovakia, 2022

Albatros with fuselage number 5254 is a modernized CM variant operated by the 2 Tactical Squadron of the 81 Wing based at Sliach airbase. In 2011, the aircraft underwent an overhaul, during which it received a new grey camouflage, which includes cabin silhouette of a darker shade grey on the underside of the fuselage. The last overhaul of the aircraft took place in early June 2020 and the L-39CM No. 5254 became the last Albatros in Slovakia, overhauled jointly by Letecké opravovne Trenčín (Aviation Repair Shop Trenčín) and Aero Vodochody. On May 4, 2022, a motif commemorating the 100th anniversary of the birth of the famous Czechoslovak pilot S/Ldr Otto Smik was applied to the vertical tail surfaces.



We would like to thank SWO Pavel Kováč for his invaluable help with this marking.

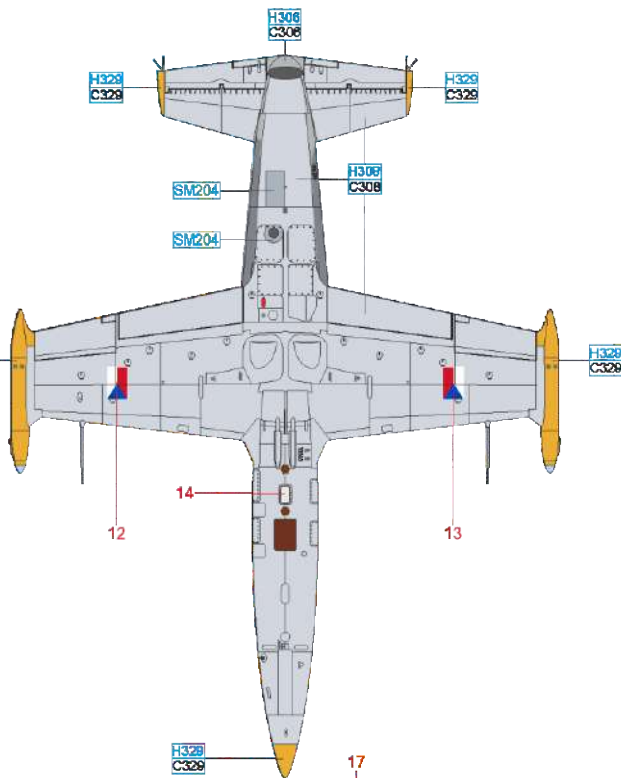
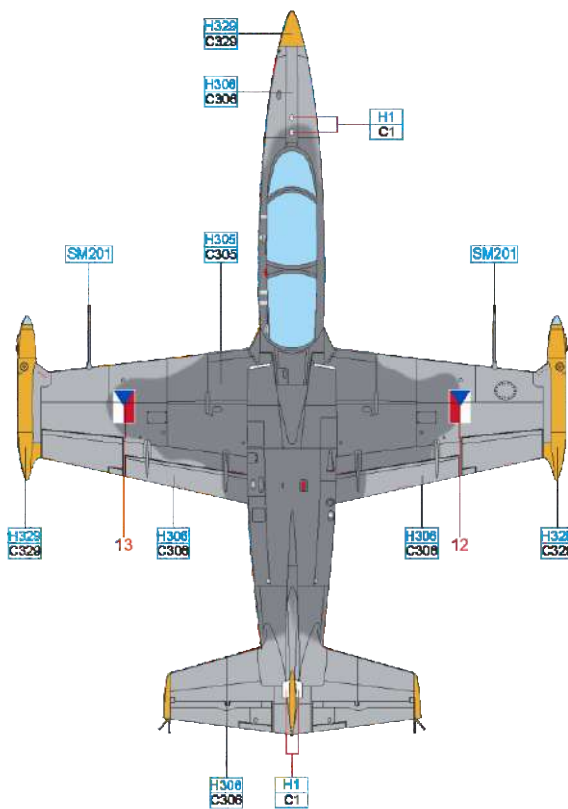
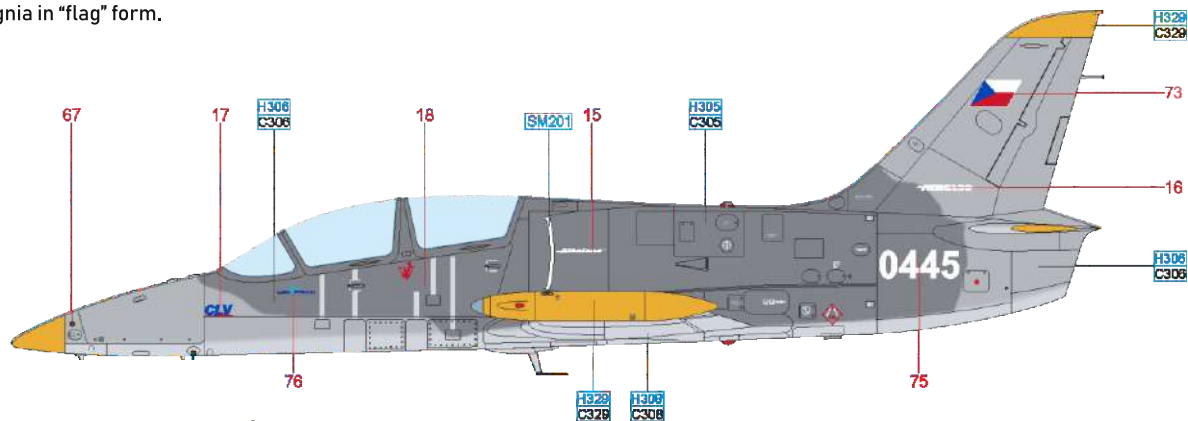


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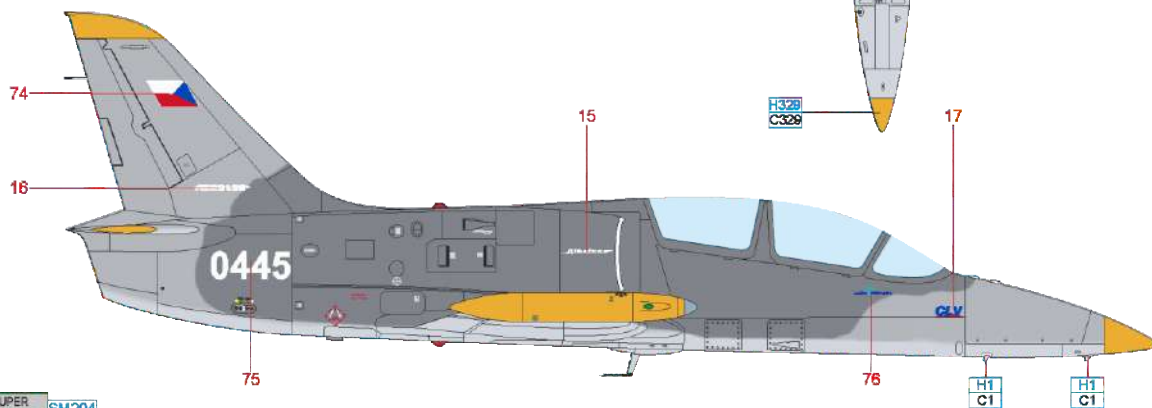
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GRAY	H308 C308	GRAY	H308 C308
		GRAY	H305 C305
		FLAT BLACK	H12 C33
		SUPER FINE SILVER	SM201

B L-39C, Pardubice, Czech Republic, 2023

On April 1, 2004, a new organizational unit of LOM PRAHA, Centrum leteckého výcviku (Flight Training Centre) was established. The state-owned company leased eight L-39C aircraft (Nos. 0103, 0113, 0115, 0440, 0441, 0444, 0445 and 0448) from the Czech Armed Forces for the advanced training of military pilots. At the turn of 1999 and 2000, all eight of these aircraft underwent overhaul and modernization, as they received a completely new forward fuselage section into which the original equipment was installed. This provided the Army with aircraft technically equivalent to the 53rd series and with a full service life. A new camouflage consisting of three shades of grey was also applied as part of the overhaul. During the R3 revision, which took place between 2016 and 2019, the aircraft then received new insignia in "flag" form.



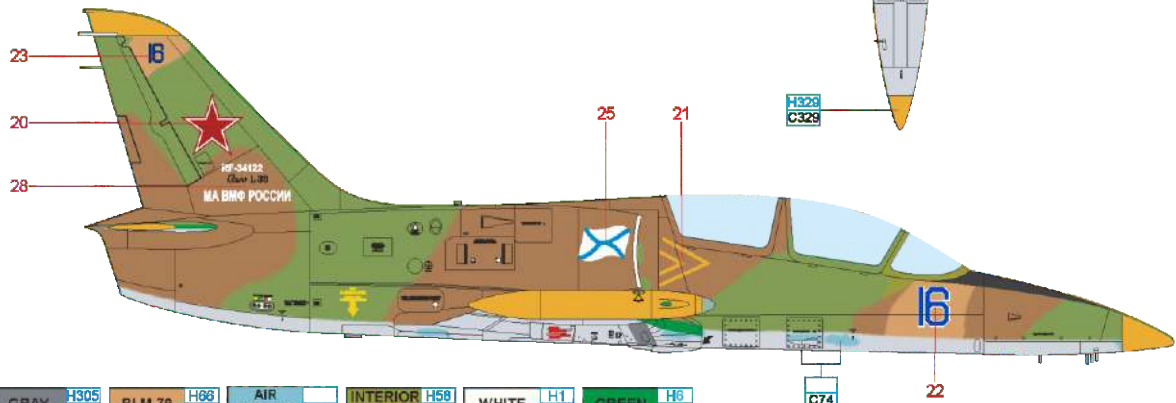
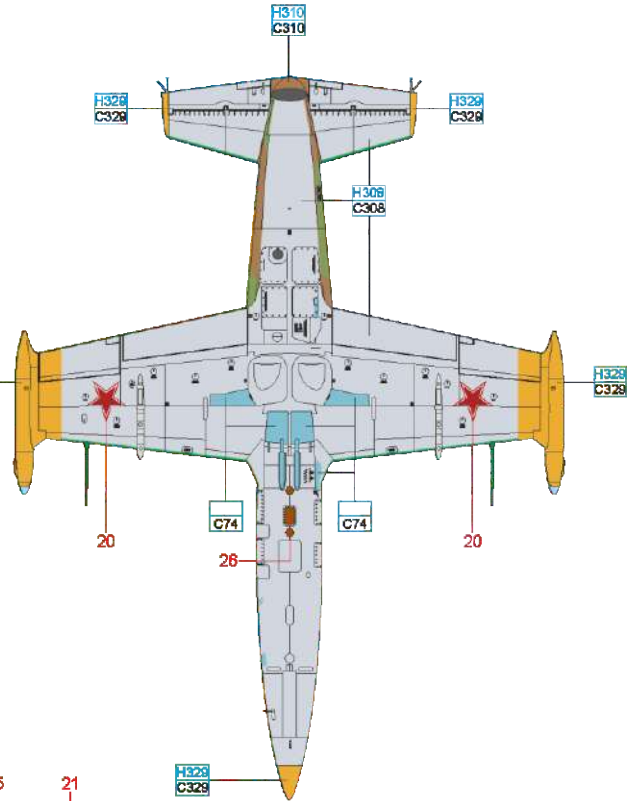
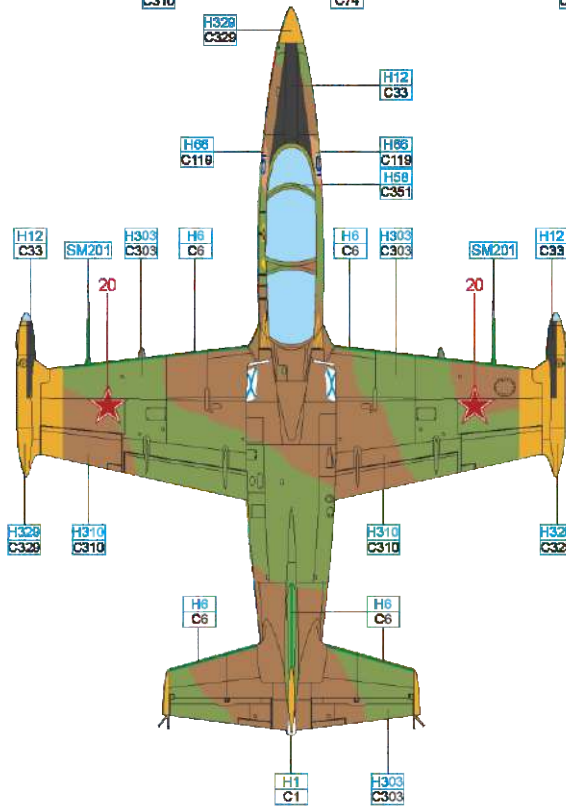
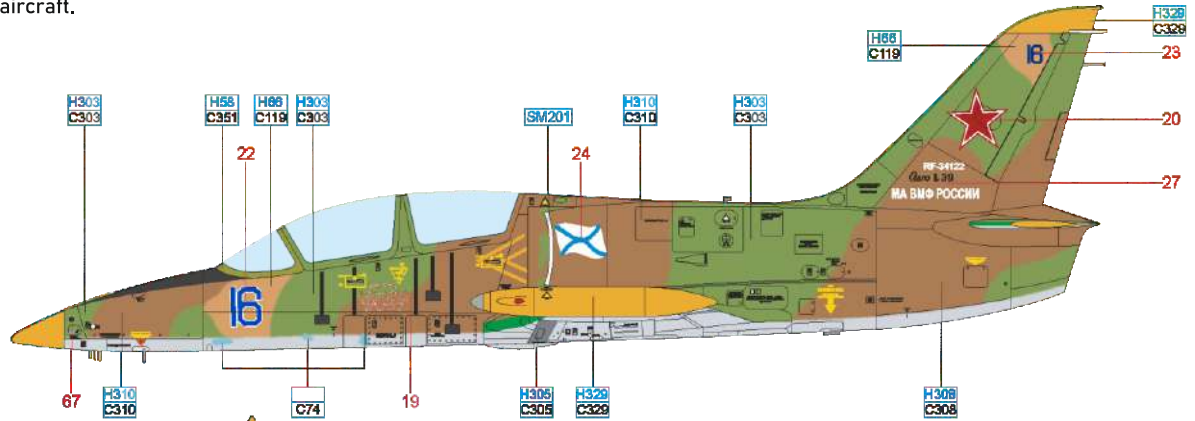
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SUPER STAINLESS 2	SM204	GRAY	H308 C308	GRAY	H306 C306	GRAY	H305 C306	YELLOW	H329 C328	SUPER FINE SILVER 2	SM201	WHITE	H1 C1
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C L-39C, Russia Naval Air Force, 859 TsBP, Yeysk base, Russia, 2018

The L-39C remains the backbone of the Russian Air Force's jet trainer fleet. After graduating from one of the three aviation academies, flight training during the third year of studies begins on these aircraft, and by the fourth year, trainees are divided into fighter, attack and tactical bomber or transport/long-range aviation, with training continuing on the L-39. This L-39C served in the ranks of the Russian Naval Air Force (AVMF-RF) at the Yeysk base. Albatros RF-34122 with blue fuselage number 16 was assigned to the 859 Naval Aviation Combat Use and Crew Training Center (859 TsBP i PLS MA VMF). On October 19, 2018, it crashed during a low-level training flight over the Sea of Azov, killing both crew members. Unconfirmed sources state that one of the pilots died after ejection, while the other did not eject from the aircraft.

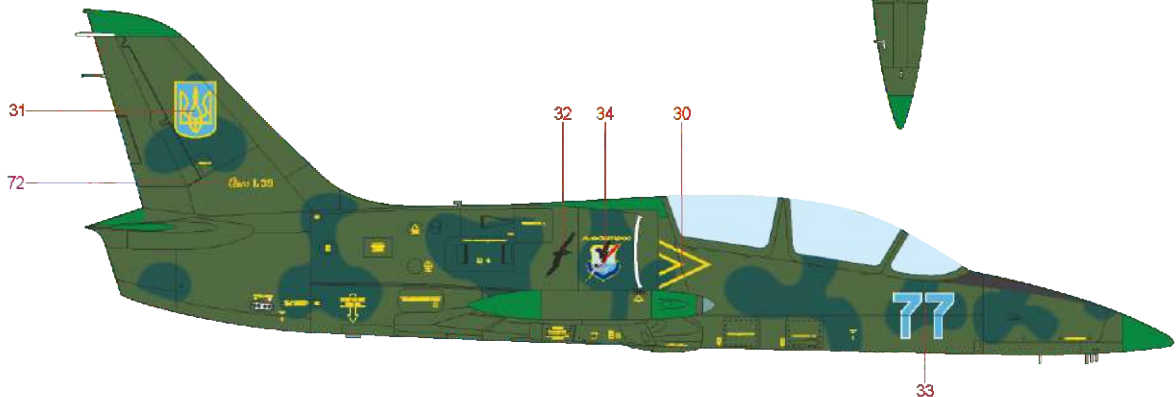
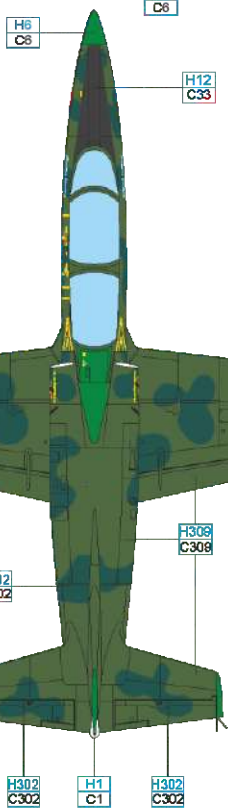
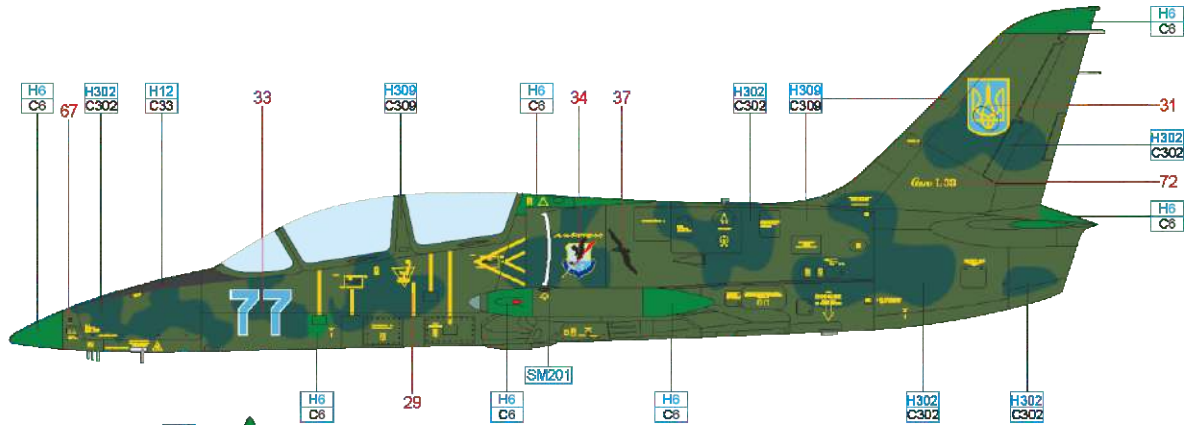


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GRAY	H305 C305	RLM 79	H88 C119	AIR SUPERIOR	C74	INTERIOR GREEN	H58 C351	WHITE	H1 C1	GREEN	H6 C6
GREEN	H303 C303	BROWN	H310 C310	GRAY	H308 C308	YELLOW	H329 C328	FLAT BLACK	H12 C33	SUPER FINE SILVER 2	SM201

D L-39C, s/n 533229, Ukrainian Air Force, No.299 brTA, Kulbakino AB, Nikolaev, Ukraine, 2015

After the collapse of the USSR in 1991, 1,202 L-39s were to remain in Russia and the rest were divided among the new independent states. When the Ukrainian Air Force was established in 1992, it operated 708 L-39s, making the country the second largest operator in the world. The poor financial situation of the entire army has reduced their number considerably and in 2005 less than 200 were in service. The remaining Albatroses were stored and offered for sale. The Ministry of Defense decided to modernize the L-39C with indigenous systems and assets. There are three versions of the upgrade (M1, M2 and M3), which denote different levels of modernization. Eight upgraded aircraft were delivered by 2014, but half of them were captured by Russia after it occupied Crimea in March 2014. With two major overhauls of the aircraft in Odessa and Chuhuiv, Ukraine became a master of L-39 overhauls, leading to many Ukrainian Albatroses being exported.



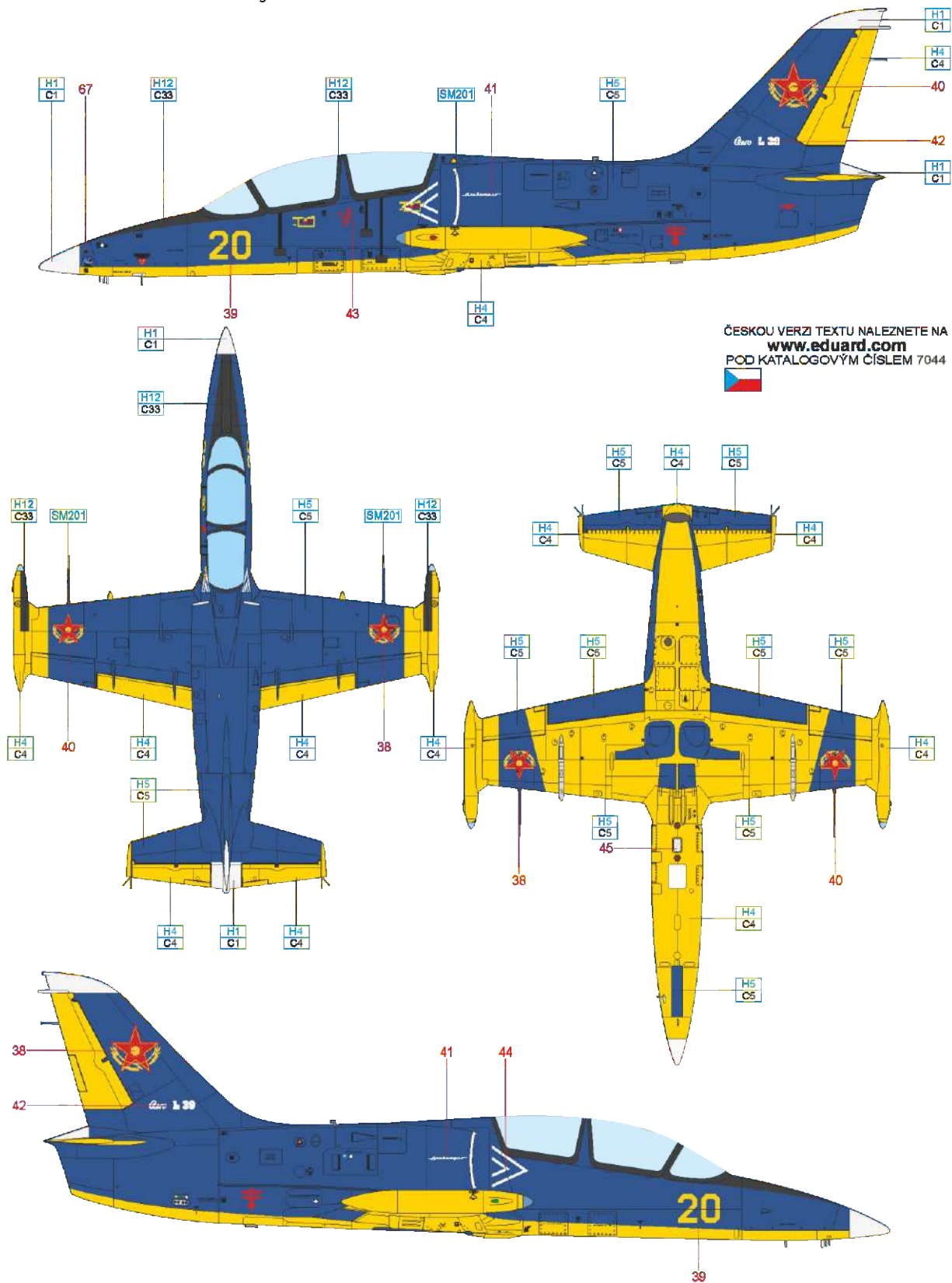
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- GREEN H309 C309
- GREEN H302 C302
- GREEN H6 C6
- FLAT BLACK H12 C33
- WHITE H1 C1
- SUPER FINE SILVER 2 SM201

E L-39C, Kazakhstan Air Force, Taldykorgan AB, Kazakhstan, 2012

The Sunkar is one of the two aerobatic groups of the Kazakh Air Force. The Kazakh term Sunkar means "Falcon" and the group uses L-39 Albatros aircraft. It was formed in the fall of 2010 and has been given six L-39s. In March 2011, it made a name for itself at the International Exhibition of Arms and Military Technical Equipment (KADEX) in Astana and demonstrates its skills every year during the celebration of Air Force Day. The Kazakhstan Air Force operates a total of 18 L-39 aircraft. In 2020/2021, six of these L-39s underwent upgrades at Aero Vodochody, during which the aircraft received modern avionics equipment, including a pair of MFDs. The aircraft are in service at the Kazakh Air Force training center in Balkhash.



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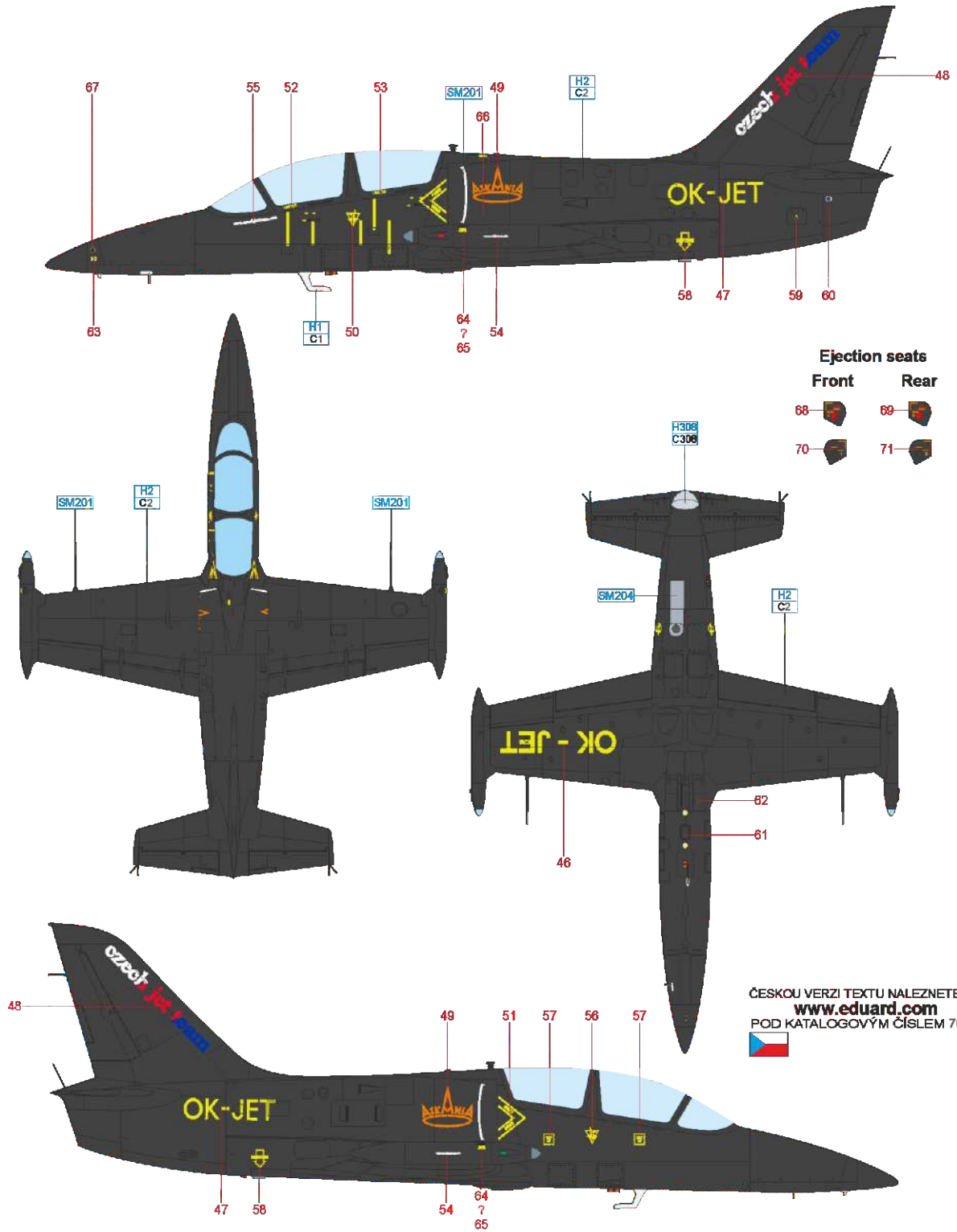


BLUE H5 C5 YELLOW H4 C4 WHITE H1 C1 FLAT BLACK H12 C33 SUPER FINE SILVER2 SM201

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F L-39C, s/n 131904, Czech Jet Team, Plzeň-Líně airport, Czech Republic, 2004-2014

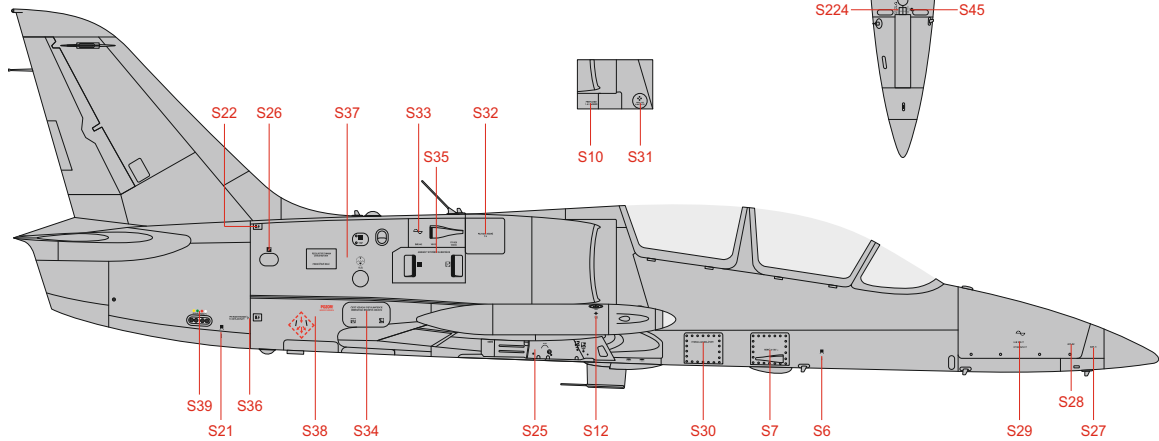
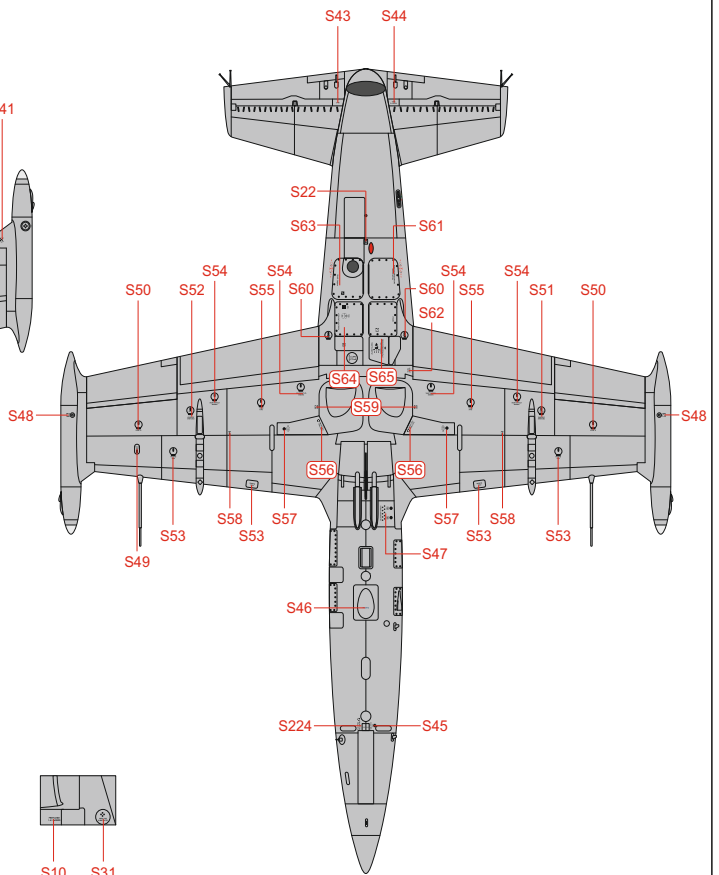
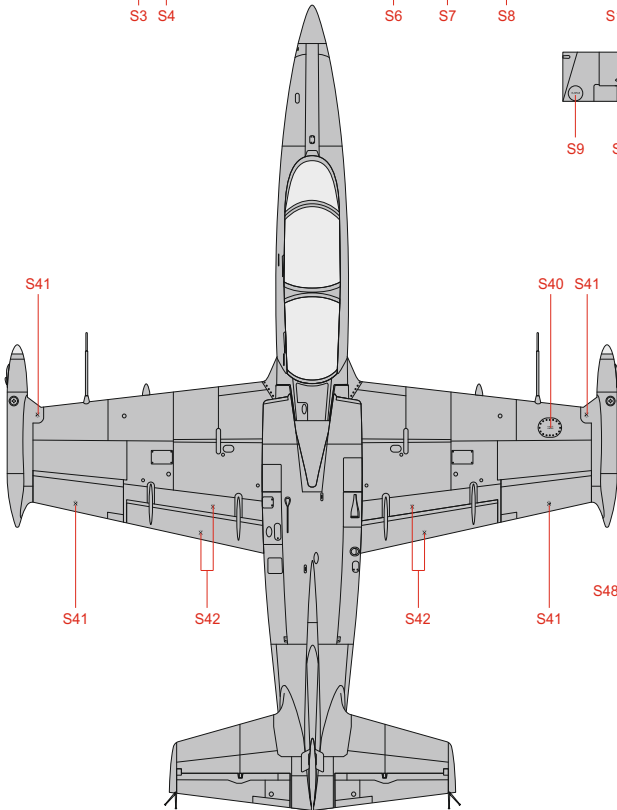
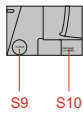
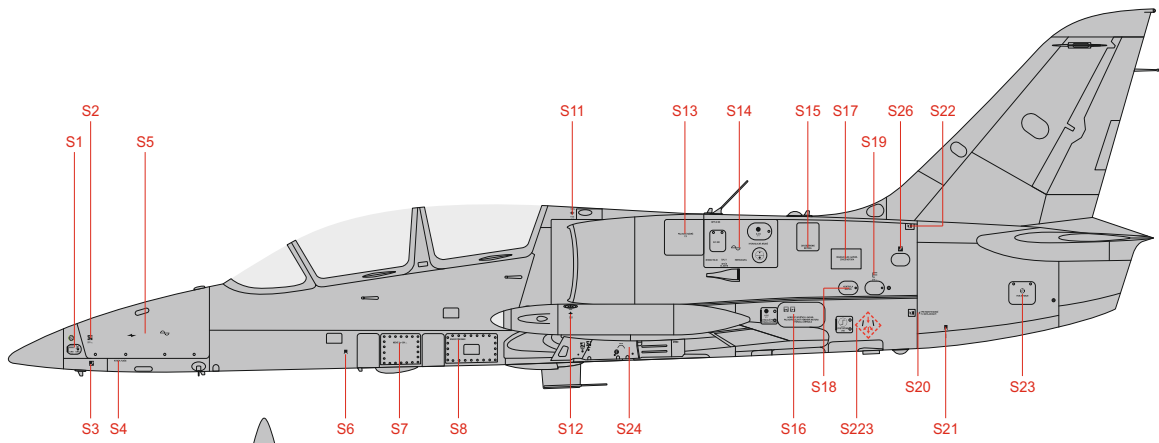
This aircraft was produced by Aero Vodochody in 1981 as part of the 19th production series as the C1 version. It was delivered to the Soviet Union together with 35 other aircraft of this series. It served at the Ukrainian Chernigov Air Base as "Yellow 53" and was flown by members of the Soviet space program group in addition to military pilots. After the collapse of the USSR in 1991, the aircraft remained with several hundred other Albatroses in Ukraine but was only stored and ready for sale. In September 2002, it was bought by a Pilsen aviation enthusiast and in February 2003 the dismantled aircraft was transported by truck to the Plzeň-Líně airport. In cooperation with Aero Vodochody, work was carried out on demilitarization of the aircraft, necessary repairs and modifications of systems and avionics. Instead of the original 100 litre wingtip tanks, 230 litre ones of the same type as used on the L-59/L-159 were installed. On July 12, 2003, the aircraft passed its first engine test and on July 7, 2004, it took to the air for test flight. On the same day, the aircraft was registered by the Civilian Aviation Bureau in the register of aircraft in the Experimental category under the matriculation OK-JET. The official entry into service of the first private-owned Czech Albatros took place on July 13, 2004. The L-39 Albatros OK-JET aircraft in its unmistakable glossy black paint with yellow accessory has been a welcome visitor of the airshows since then and has performed many adventurous flights.

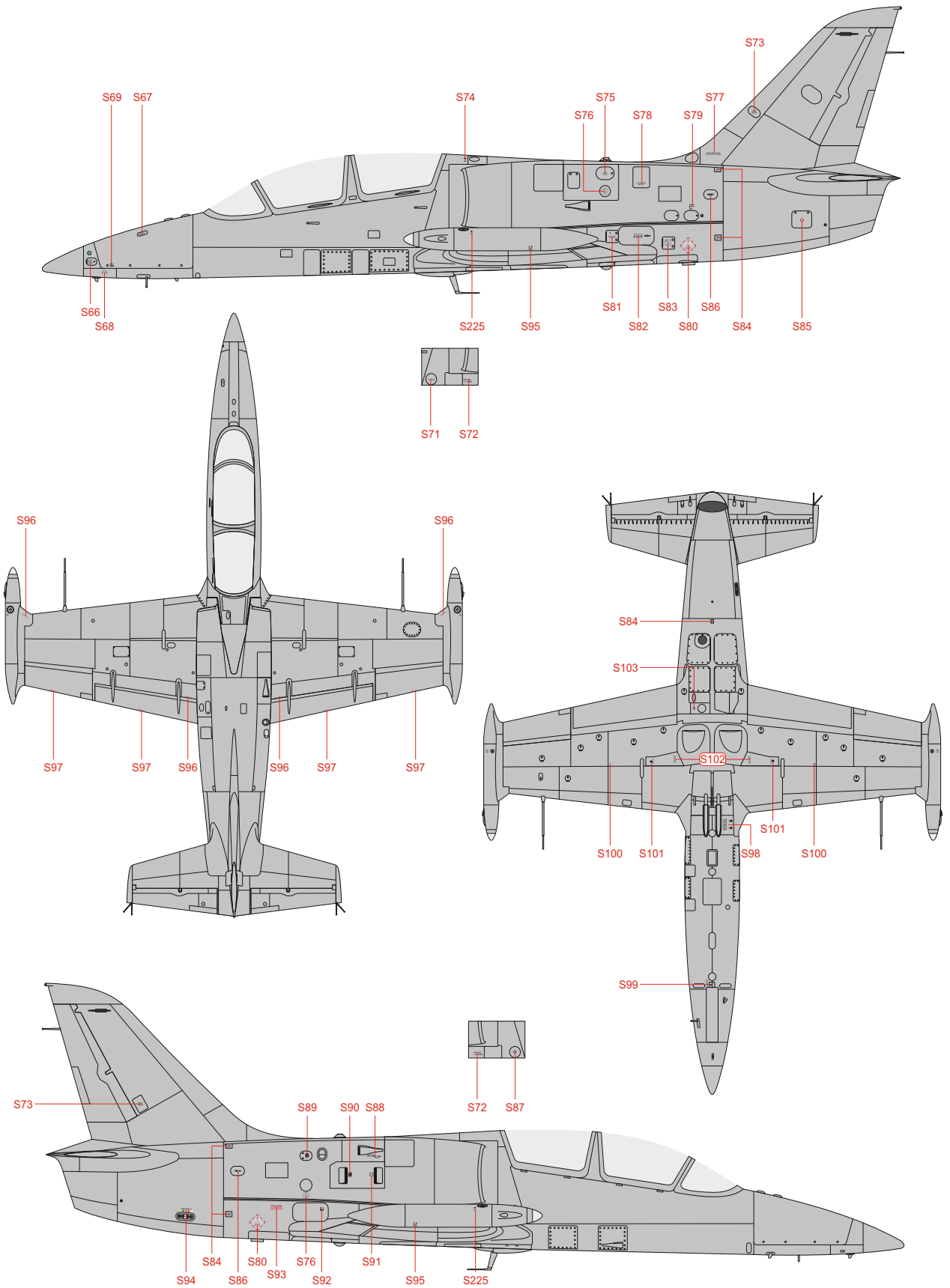


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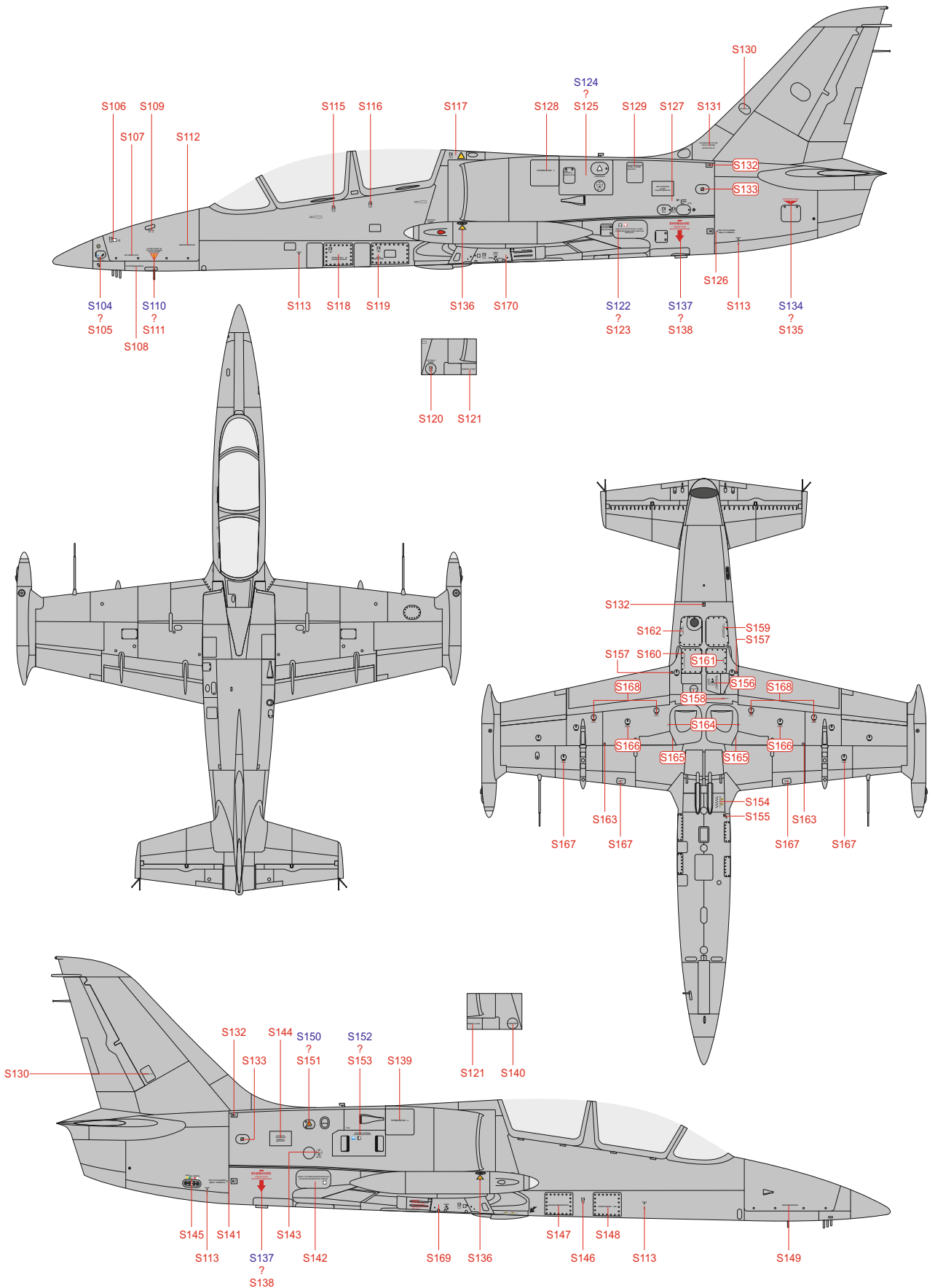


- BLACK H2 C2
- GRAY H308 C308
- WHITE H1 C1
- SUPER FINE SILVER 2 SM201
- SUPER STAINLESS 2 SM204





L-39C Russian and Kazakhstan Air Forces STENCILING POSITIONS



* blue alternatives - stencils for CoIE

