

# L-29 Delfín

eduard

## CZECHOSLOVAK JET TRAINER AND LIGHT ATTACK AIRCRAFT 1/48 SCALE PLASTIC KIT

ProfiPACK  
edition

#8099



### INTRO

The onset of military jets necessitated new training airplanes, preparing student pilots for demanding machinery better than piston trainers. The Fouga Magister took off for first time during 1952 as the first successful example of this new breed. Shortly afterwards also the countries of the then Warsaw Pact (WP) realized the need for such an aircraft. The Czechoslovak Ministry of National Defense (MNO) specified the tactical and technical requirements for future jet trainer in 1955, demanding use of the domestic turbojet M710 engine with one stage axial-flow compressor, which was under the development at the time. The project took off under the C-29 designation with Zdeněk Rublič starting the work on the design immediately. Later on, Karel Tomáš joined him as a second main designer, and both were assisted by younger prospect Jan Vlček, who, in 1960, took the lead role in further development, as both the main designers retired. Later on Vlček used his experience from L-29 in design of successor L-39 Albatros. Shortly after the start of pre-design work the C-29 attracted attention of Soviet officials, who were acquainted with the project in early stage of development. The reason was obvious: while Czechoslovakia needed only some 100 of trainers, the demand of Soviet Union promised orders of thousands of them. The first consultations between Czech and Soviet representatives took place in Moscow in May 1956 and the requirement for turbojet engine with a robust radial-flow compressor instead of axial-flow one emerged as one of the main requests from Soviet side. A subsequent meeting in September 1956 confirmed it definitively, so engine designers of the Motorlet Jinonice company started work on engine M701 with radial-flow compressor. Other demands from the Soviet side included extension of the flight endurance from 70 minutes to 120 minutes and also reduction of the landing speed from 105 mph (170 km/h) to 81 mph (130 km/h) was required. The wing area had to be increased from 17.5 m<sup>2</sup> to 19.8 m<sup>2</sup> with original split flaps replaced by the more efficient slotted flaps to achieve such a low speed safely.

#### First time airborne

At the beginning of 1957 production of the first five prototypes of L-29 (as the project was newly designated), was approved. Three of these were to be used for flight tests, one for structural tests and one, uncompleted, served as technological demonstrator. Since the M701 was not yet available, substitution had to be sought elsewhere and, as there was no suitable engine within the WP countries, it needed to be sourced from western (i.e. NATO) countries with the need to circumvent existing embargoes. Attempts to acquire two British Armstrong Siddeley Viper engines ended with smuggling them through Switzerland by Jaroslav Bejšovec, employee of the state owned Foreign Trade Company (PZO). The engines lacked technical documentation and also some parts like starter or gearbox, so they had to be manufactured locally without any technical support from the engine producer. The prototype No. 3 took off for the very first time on April 5th, 1959, at 2:50 pm with Rudolf Duchoň behind the controls. The XL-29.03 proved it was easy to fly, but later on, at higher speeds, problems with tail vibrations and aileron flutter emerged. During the attempts to solve the problems, prototype No. 1 was prepared to start flight tests with new M701 engine. The XL-29.01 conducted its maiden flight on July 12th, 1960, and later on also prototypes Nos. 2 and 3 got the new M701 turbojet. At the end of 1960 representatives of the MNO approved production of ten aircraft provided several lasting problems would be adjusted.

#### Comparative trials success

The grounds for the success of L-29 lies in victory in comparative trials with two competitors: the Polish TS-11 Iskra and the Soviet Jak-30. The trials took place on August 21st, 1961, in Soviet Monino and the Czechoslovak team showed up with the prototype No.3 upgraded with most of latest changes adopted already for serial production. Although the L-29 proved to be inferior to the competitors in terms of performance, it demonstrated best flying characteristics and had also upper hand in operational reliability. Hence was L-29 found as the most suitable for pilot training and declared winner of the trials. After the return of the XL-29.03 from Monino (September 28th, 1961), work began on some last adjustments. The horizontal stabilizer was changed and the air brakes got eight, then sixteen circular holes. During 1962 the production of the first ten aircraft was under way and starting with 11th example a new front fuselage was adopted (by 9,8 inch/ 25 cm longer). Also the rudder was changed and air brakes returned to unperforated variant during the later series. The intergovernmental agreement on L-29 delivery was signed between Czechoslovakia and Soviet Union in February 1963 and it put production under high stress as the USSR demanded the delivery of 2500 pieces over five years. Because of that, final assembly took place not only in Aero Vodochody (total production of 1943 L-29s), but also in second factory Let Kunovice (total production of 1722 L-29s, all destined for the USSR and other WP countries). The next development of the L-29 led to the L-29 R reconnaissance variant, the L-29 A aerobatics lightweight version and one seater L-29 RS used for advanced training. The trade name Delfin (Dolphin) was adopted in 1963, NATO assigned the L-29 with code name Maya.

#### Dolphin Warrior

Although the L-29 was a dedicated trainer, it has also been involved in several combat operations during its service, because it was exported to African and Middle Eastern markets with unstable countries. The first non WP customer was Syrian Arab Republic in 1964. The L-29 was used in combat for very first time in Nigeria, flown by government forces against the rebels led by General Ojukwu in 1967. Upon rebellion in Uganda, the L-29s attacked ground targets with rockets and bombs when used against the governmental forces of General Amin in 1978. L-29s were also used by Egypt in the Arab-Israeli wars. They were modified to allow two pylons, each with four 80mm rockets, under each wing. It was quite rough modification of the wing design, which luckily went well... All in all, the Aero L-29 Delfin served successfully with 24 air forces and many of them are still in flight condition in private hands. With the total of 3665 examples produced, the L-29 Delfin is so far the mostly produced jet trainer in history.



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 době 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  
VOLBABEND  
OHNOUTOPEN HOLE  
VYVRTAT OTVORSYMMETRICAL ASSEMBLY  
SYMETRICKÁ MONTÁŽNOTCH  
ZÁŘEZREMOVE  
ODRÍZNOUTAPPLY EDUARD MASK  
AND PAINT  
POUŽÍ EDUARD'S MASK  
NABARVIT

## PARTS



## DÍLY



## TEILE



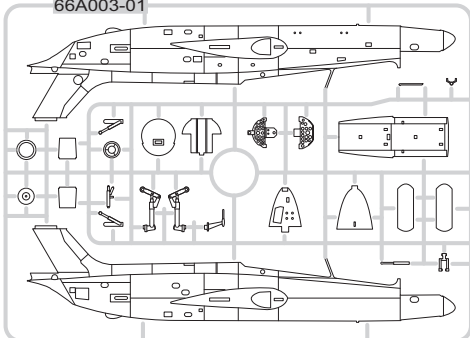
## PIĚCES



## 部品

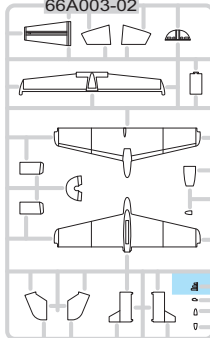
## A&gt; PLASTIC PARTS

66A003-01



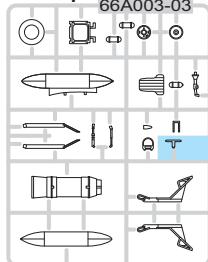
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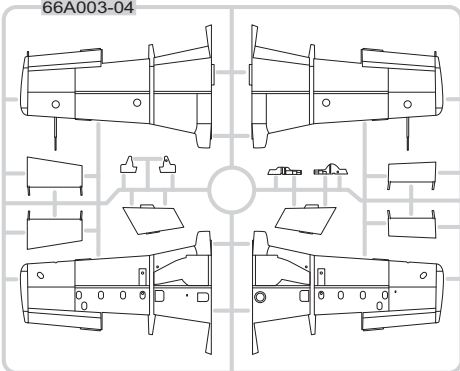
## C&gt; 2 pcs.

66A003-03



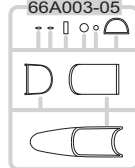
## D&gt;

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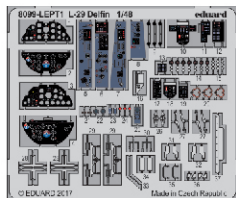
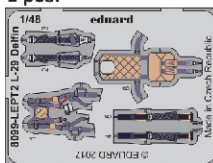


## E&gt;

66A003-05

PE - PHOTO ETCHED  
DETAIL PARTS

## 2 pcs.



-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

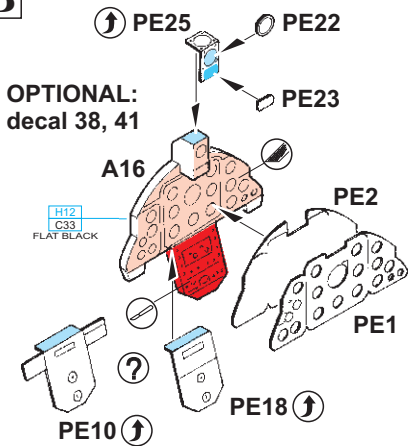
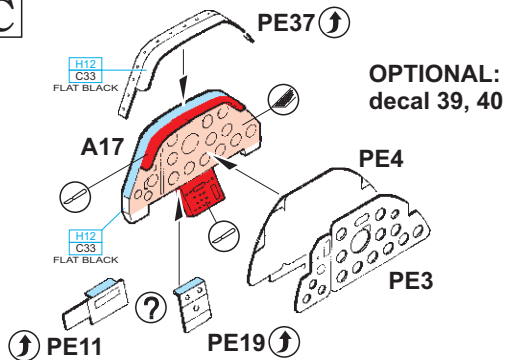
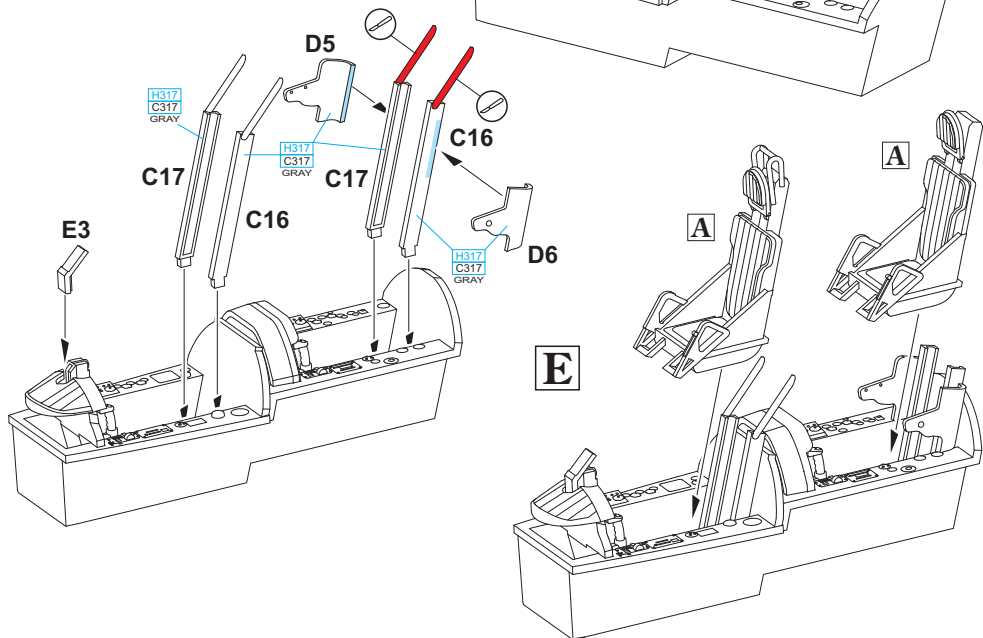
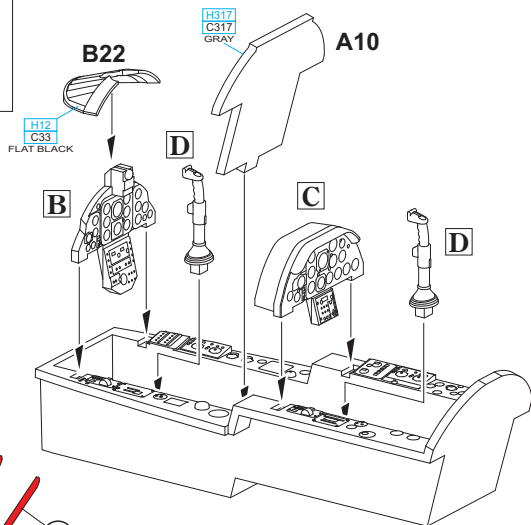
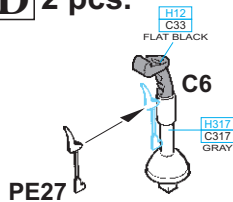


## 色

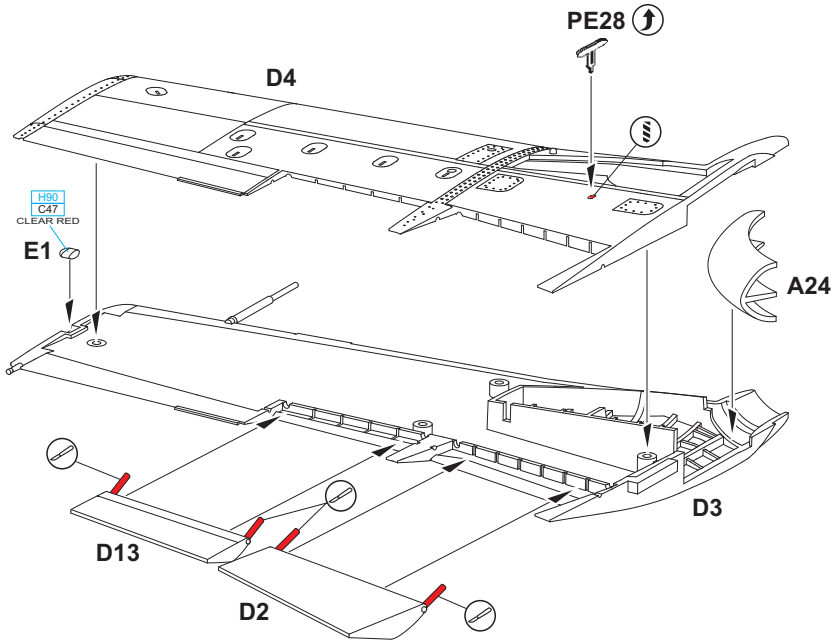
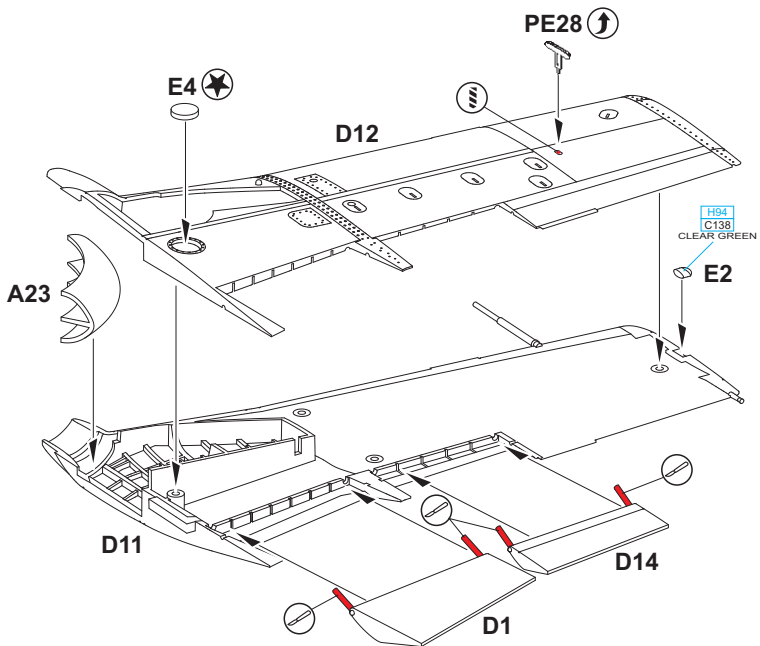
GSI Colors (GUNZE)		
AQUEOUS	Mr.COLOR	
H310	C31	RED
H315	C32	GREEN
H318	C32	FLAT WHITE
H319	C33	FLAT BLACK
H320	C12	OLIVE DRAB
H321	C115	LIGHT BLUE
H326	C81	BURNT IRON
H327	C137	TIRE BLACK
H307	C47	CLEAR RED
H304	C138	CLEAR GREEN
H313	C313	YELLOW
H317	C317	GRAY
H322	C327	RED

AQUEOUS	Mr.COLOR	
H328	C328	BLUE
H329	C332	LIGHT AIRCRAFT GRAY
H330	C334	BARLEY GRAY
H332	C337	GRAYISH BLUE
H333	C338	LIGHT GRAY
H335	C123	CHOCOLATE BROWN
H423	C123	DARK GREEN
	C92	SEMI GLOSS BLACK
Mr.METAL COLOR		
	MC213	STAINLESS
Mr.COLOR SUPER METALLIC		
	SM01	SUPER FINE SILVER
Mr.COLOR GX		
	GX6	BLUE



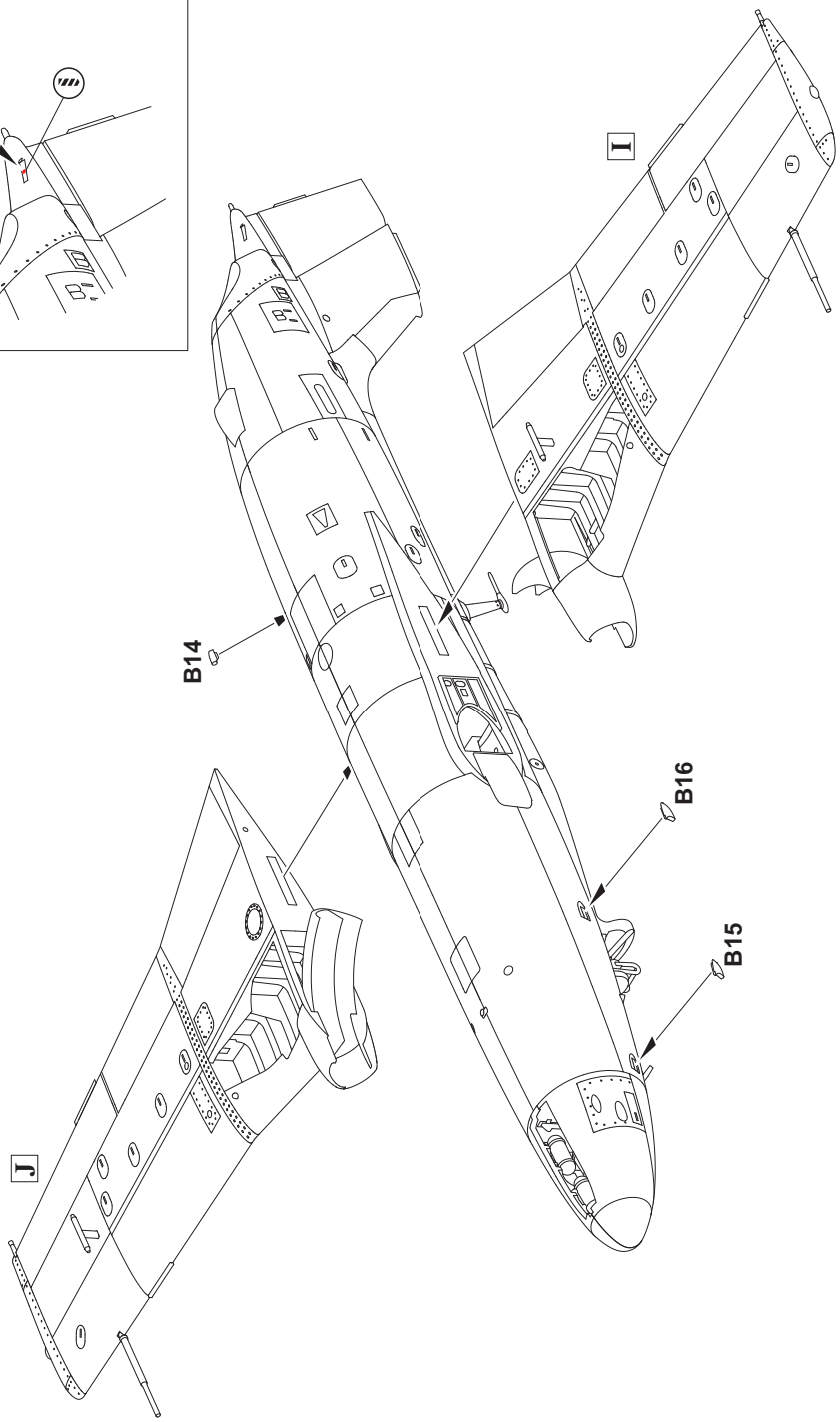
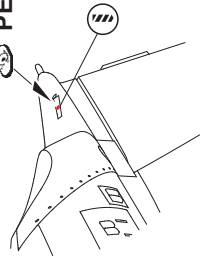
**B****C****D** 2 pcs.

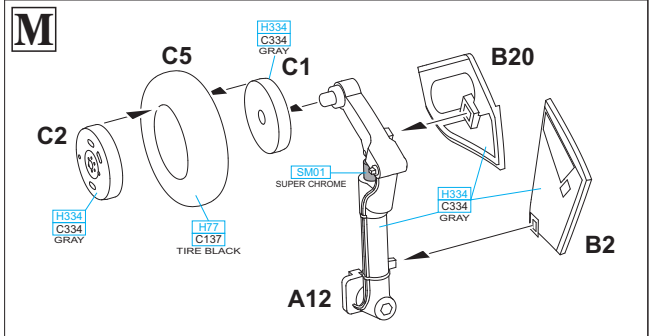
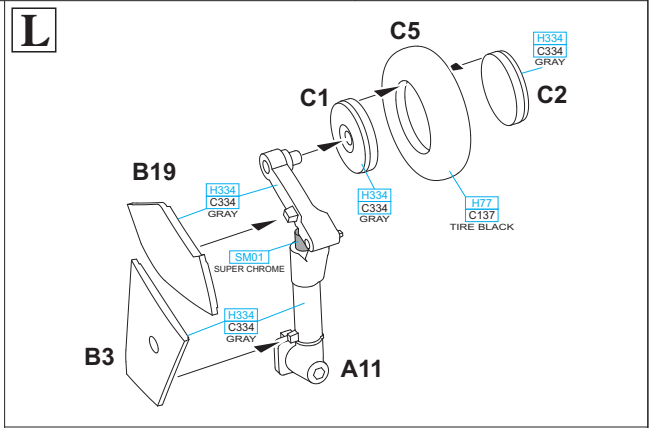
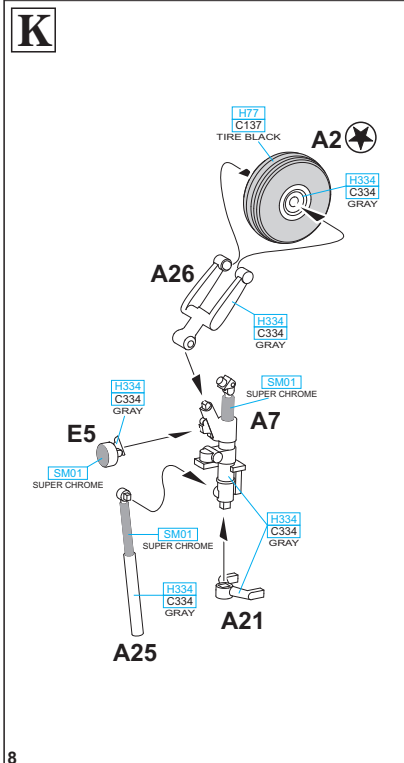
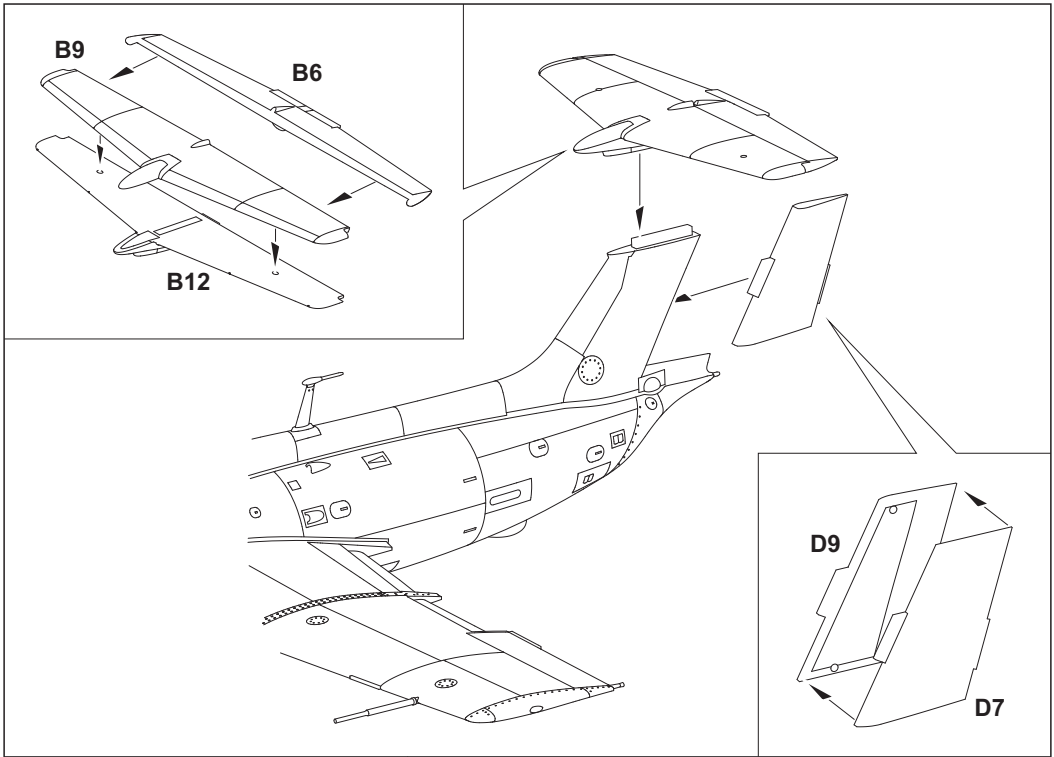


**I****J**

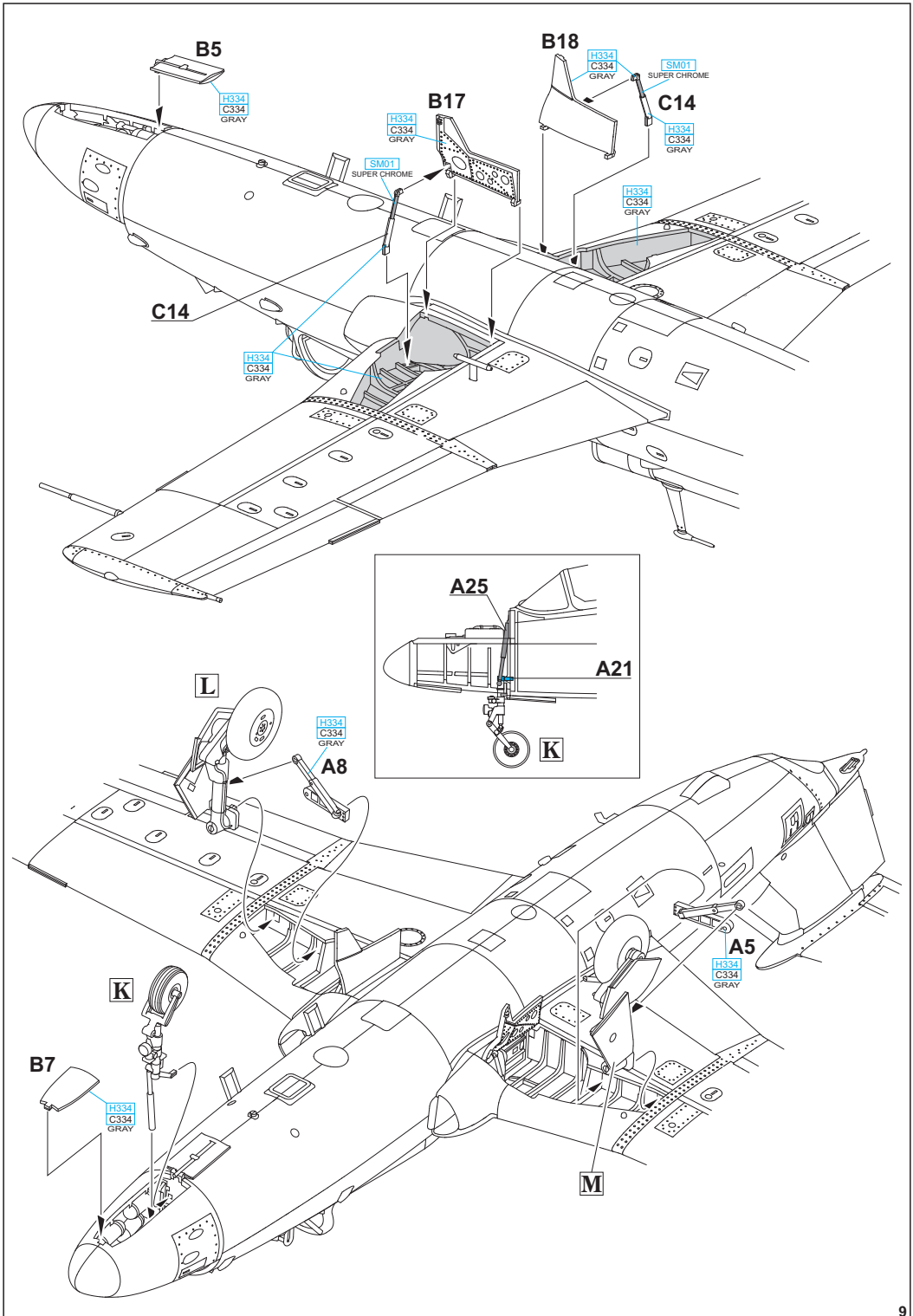
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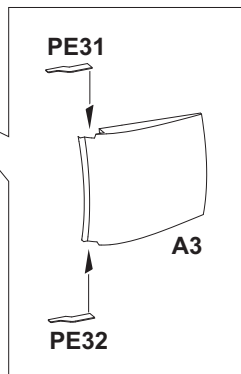
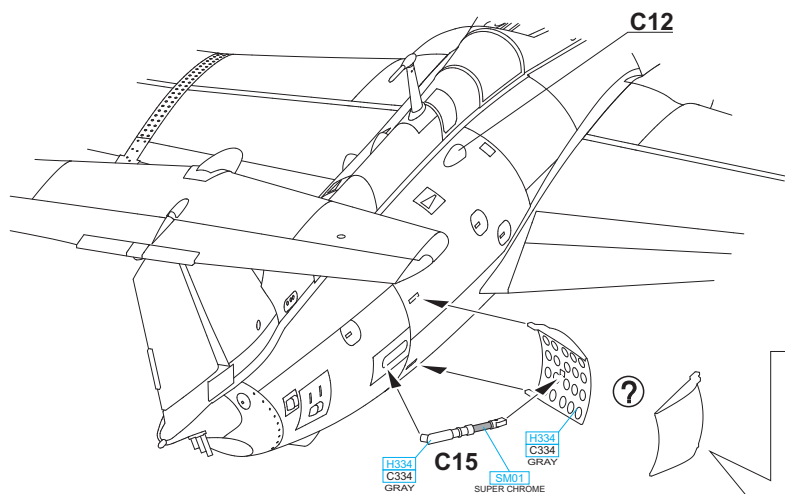
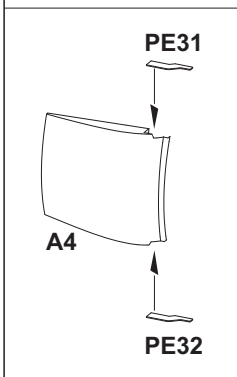
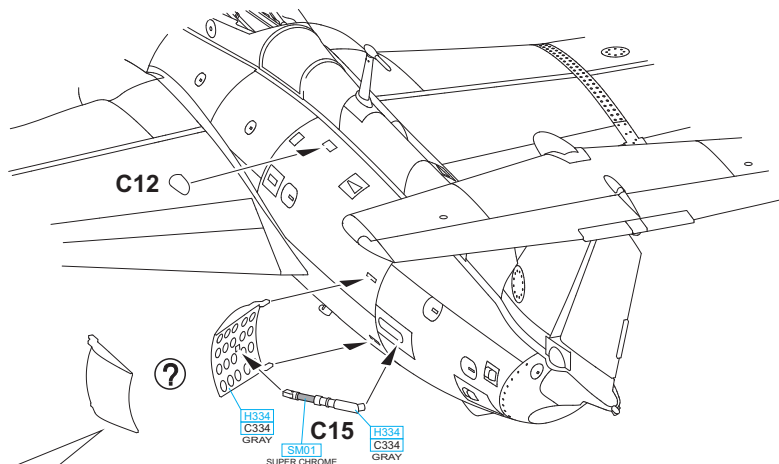
PE26

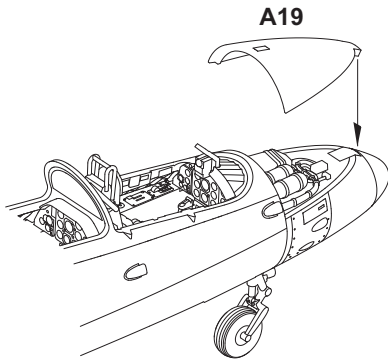
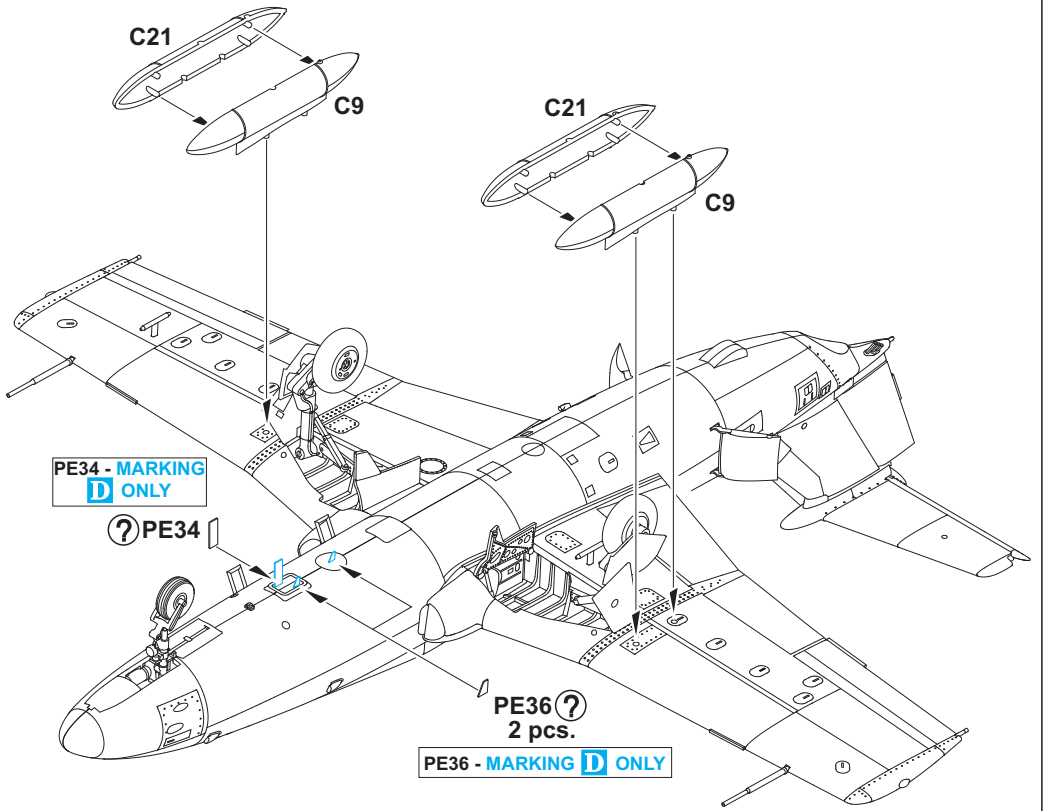




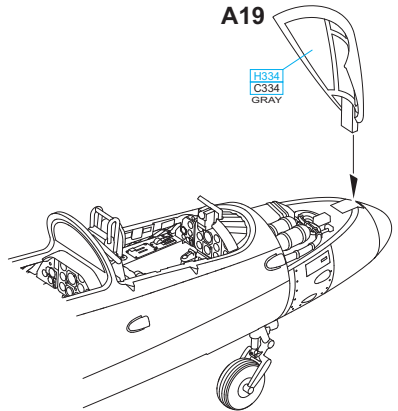


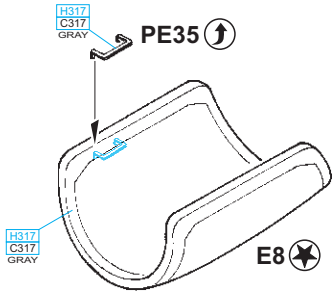
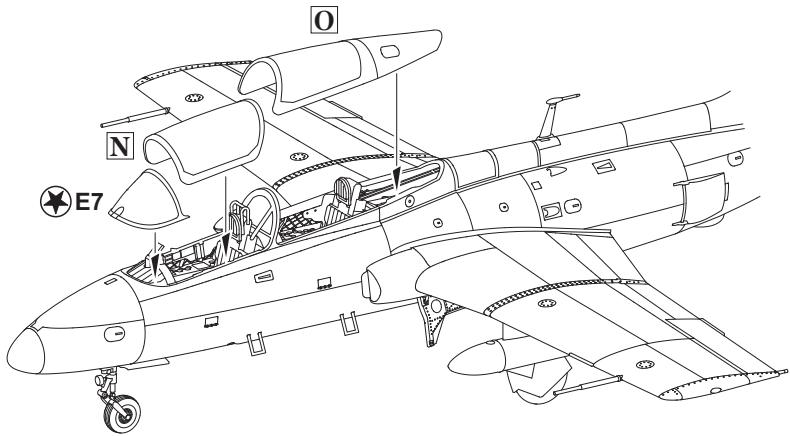
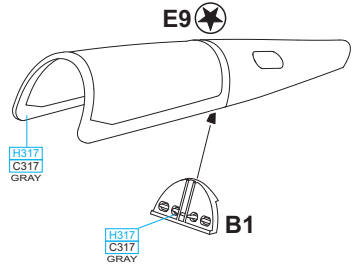
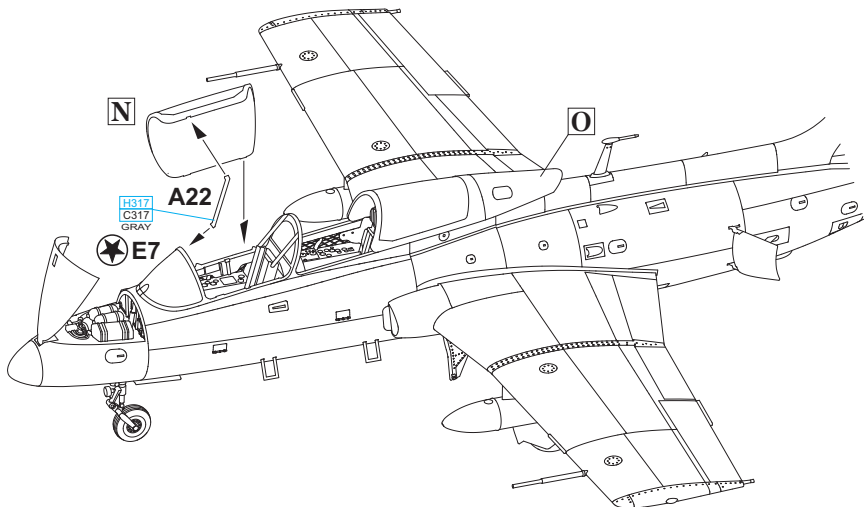


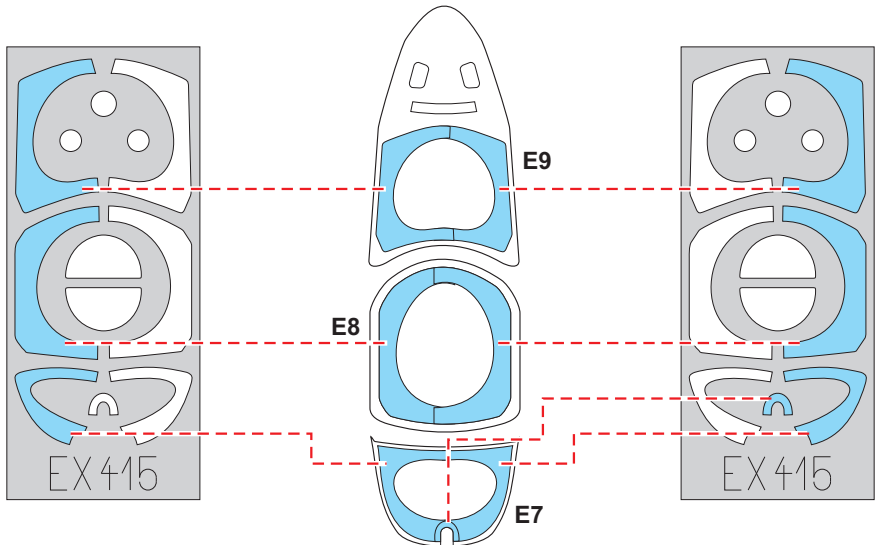
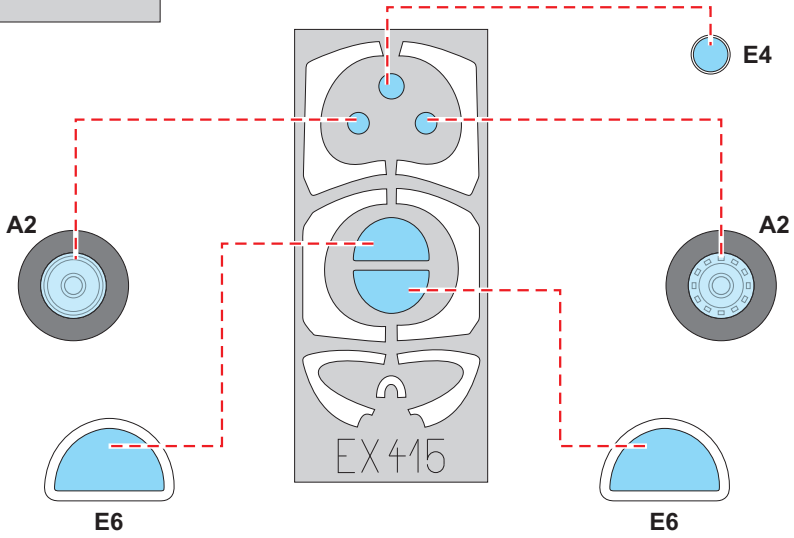




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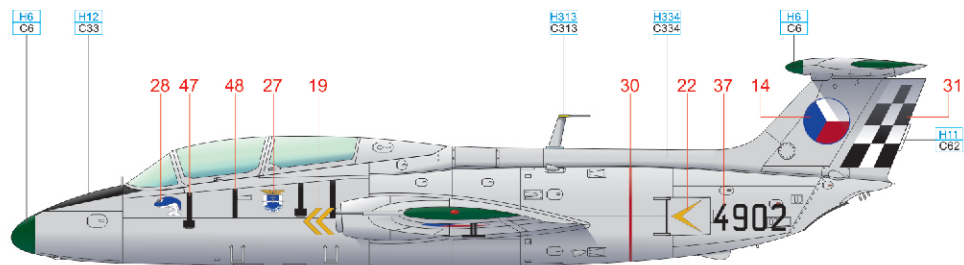


**N****O****?**

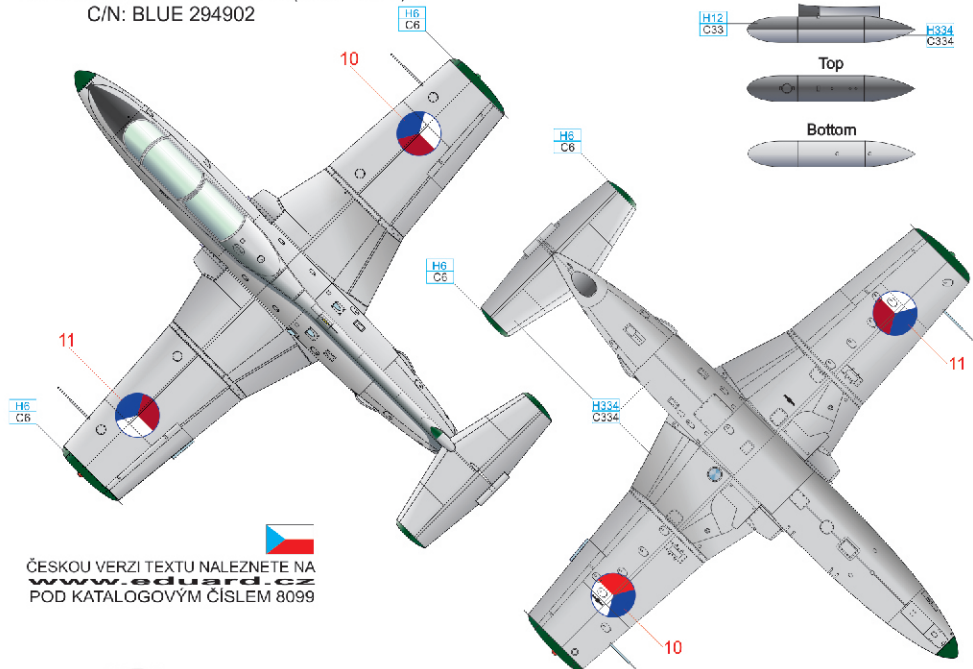


# A 4902, 11. Fighter Regiment, Žatec, Czech Republic, 1993

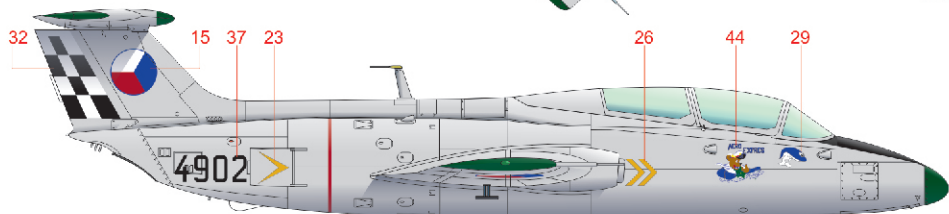
After the disbandment of the 9th sbolp (Fighter-Bomber Regiment) at Bechyne on December 31st, 1992, this aircraft was adorned with artwork under the cockpit by pilots reassigned to the 11th Fighter Regiment based at Zatec. This base, home to MiG-29s and MiG-21s, would be decommissioned a mere year later on December 31st, 1993. The Bechyne Delfin, painted grey on all surfaces received several renditions under the cockpit along with the checkerboard pattern on the rudder, had the tip of the nose and segments of the horizontal surfaces in green.



STENCILS: BLUE VARIANTS (8099-OBT3)  
C/N: BLUE 294902



ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.cz](http://www.eduard.cz)  
POD KATALOGOVÝM ČÍSLEM 8099

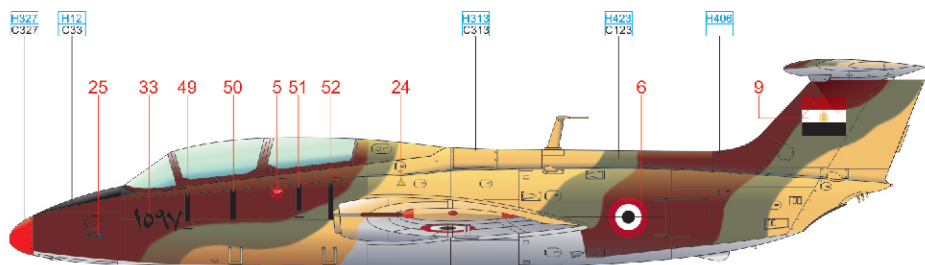


BARLEY GRAY H334 C334 BLACK H12 C33 GREEN H6 C6 YELLOW H313 C313 WHITE H11 C62

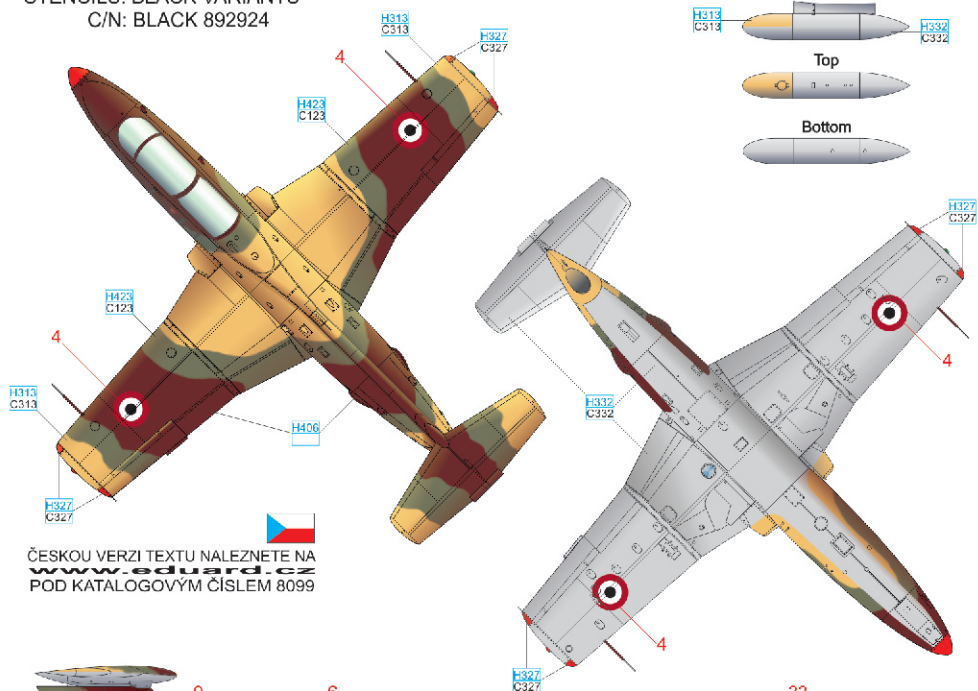
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## B 1597, Egyptian Air Force, Bilbais, Arab Republic of Egypt, Late Eighties

The Aero L-29 Delfin, NATO codenamed 'Maya' was supplied to the air force of the Egyptian Arab Republic between 1966 and 1969 to the tune of 122 machines. The Egyptians utilized them in the ground attack role against Israeli targets during the Yom Kippur War in October 1973. The attacks were conducted using bombs suspended from field installed racks by ground crew. Over the latter half of the eighties, Egyptian Delfins went through general overhauls at Trenčín, Czechoslovakia (Slovakia now), during which they were repainted in a scheme consisting of sand, green and brown. To this were added the national roundels and four digit Arabic numerals below the windscreen.



STENCILS: BLACK VARIANTS  
C/N: BLACK 892924



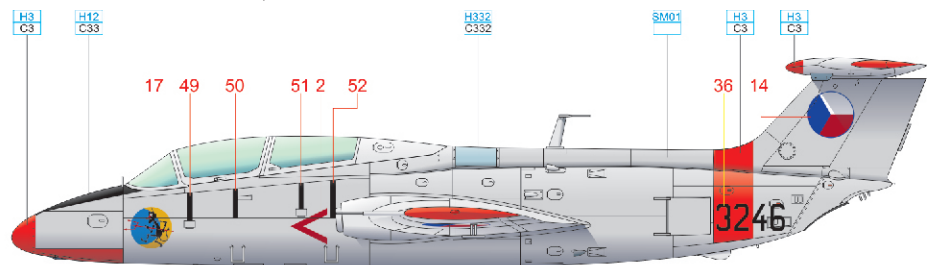
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POD KATALOGOVÝM ČÍSLEM 8099

LIGHT GRAY H332 C332 YELLOW H112 C313 GREEN H423 C123 BROWN H406 H297 C327 BLACK H12 C33

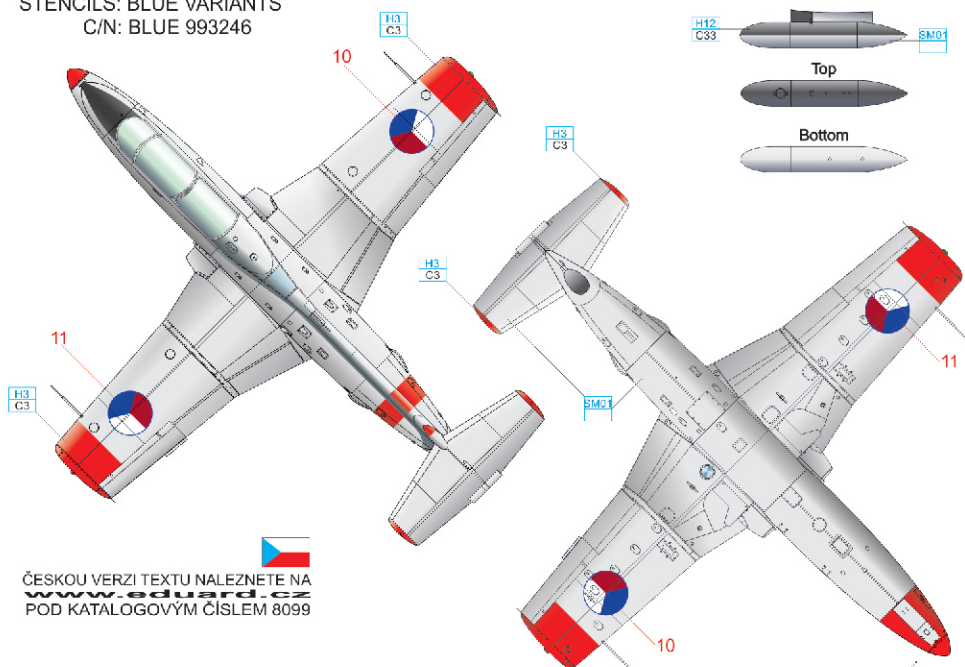
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# C 3246, 3rd Flight, 1. Fighter Regiment, Planá Air Base, Czechoslovakia, 1969-1970

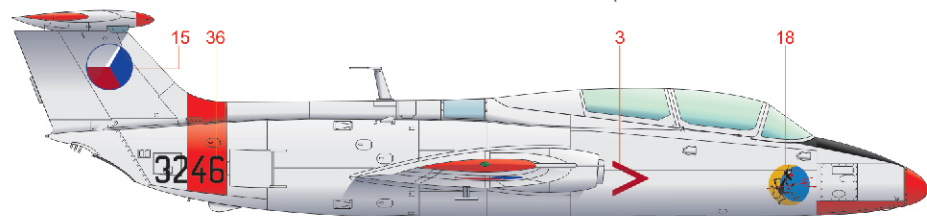
While most L-29s served as trainers with training units, some aircraft were allocated to combat units to aid in maintaining ratings at a minimal expense. One such aircraft was this L-29 coded 3246, which was assigned to Ceske Budejovice's 3rd Flight of the 1st slp (Fighter Regiment) right from its acceptance in 1969 up to the mid eighties. Later, it was transferred to a training regiment in Kosice and flew in Slovakia up to 2003. During 1969-70, the Flight badge was carried, consisting of a devil on a dark blue background, not only by the unit's MiG-21PFMs, but also this L-29. The red trim was part of the standard scheme in which the L-29s were delivered to the main client, the Soviet Union.



STENCILS: BLUE VARIANTS  
C/N: BLUE 993246



ČESKOU VERZI TEXTU NALEZNETE NA  
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POD KATALOGOVÝM ČÍSLEM 8099



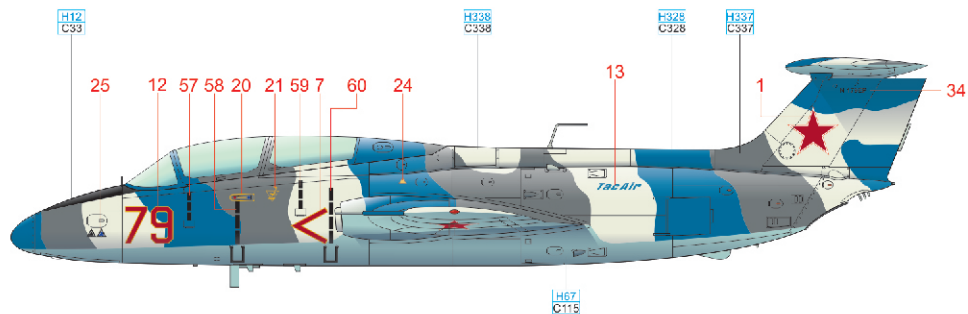
SUPER CHROME SM01 RED H3 C3 BLACK H12 C33 LIGHT GRAY H332 C332

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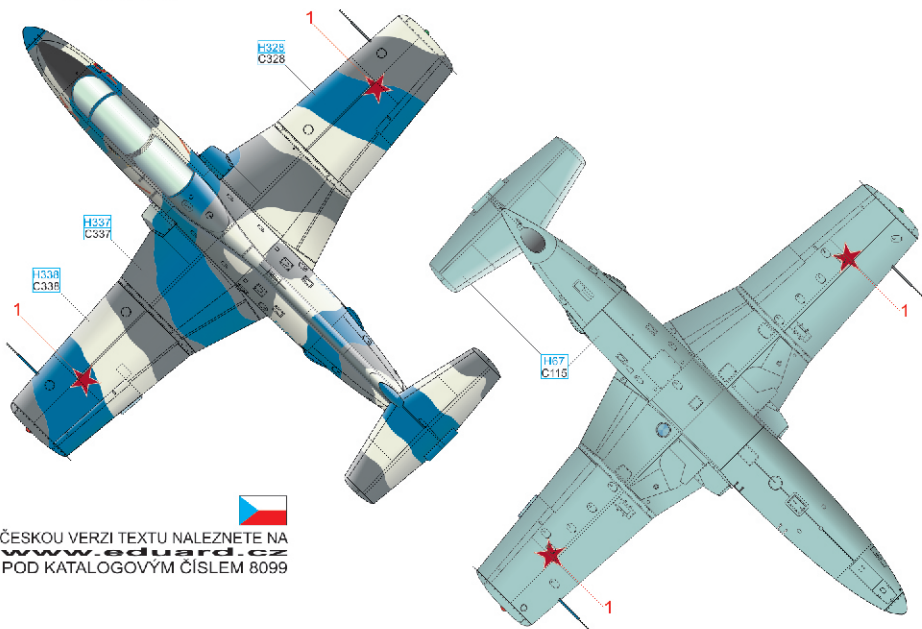


## D N179EP, Reno AFB, United States of America, 2009

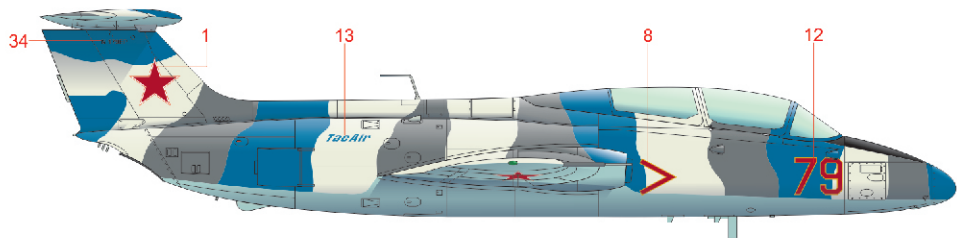
The American firm Tactical Air Services owns two L-29 Delfins, and these are used to train army and navy elements by simulating incoming anti-shipping or air-to-surface rounds. During RIMPAC 2010 (Rim Of The Pacific - the largest international naval exercise) they were photographed on the deck of LHD 6 Bon Homme Richard. Aircraft N179EP is camouflaged similarly to the aircraft operated by the Russian Air Force, including Russian stars on the wings and fin.



STENCILS: BLACK VARIANTS  
C/N: NO C/N



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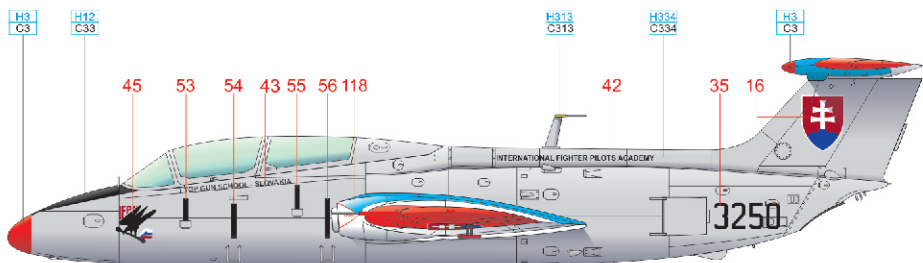


LIGHT BLUE	H67 C115	LIGHT GRAY	H338 C338	GRAY	H337 C337	BLUE	H328 C328	BLACK	H12 C33
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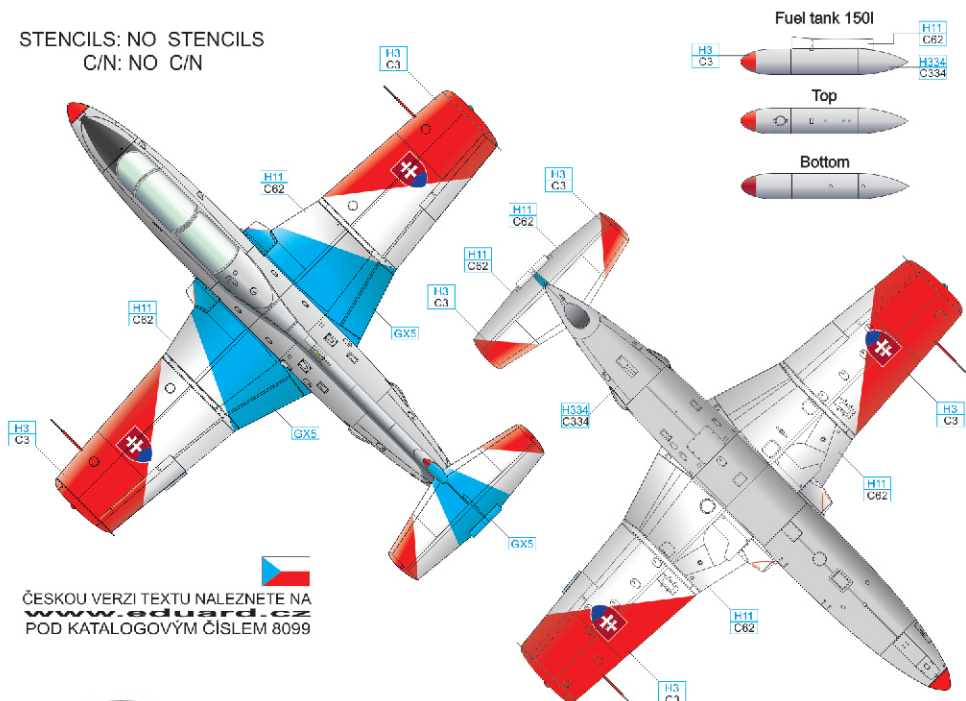
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# E 3250, International Fighter Pilots Academy , Košice, Czech and Slovak Federative Republic, 1993

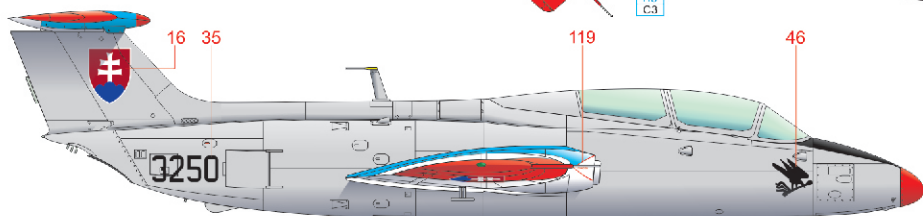
The International Fighter Pilots Academy was formed at the beginning of 1993 at Kosice as an official training unit allowing civil clients to take part in aerial exercises on military aircraft, including helicopters. One of the aircraft that were used in this role and were also funded for in the budget of the Slovak Air Force, was this L-29. The fuselage of this Delfin was painted grey, while the wings received a striking scheme consisting of red, white and blue segments reminiscent of past aerobatic schemes. The IFPA badge was carried under the windscreen on both sides of the aircraft.



STENCILS: NO STENCILS  
C/N: NO C/N



ČESKOU VERZI TEXTU NALEZNETE NA  
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BARLEY GRAY H334 C334 RED H3 C3 BLUE GX5 WHITE H11 C62 BLACK H12 C33 YELLOW H313 C313

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# L-29 Delfin

# STENCILING POSITIONS

