

# MiG-21PFM

eduard

1/48 Scale Plastic Model Kit

**ProfiPACK**  
edition

The MiG-21 was the most-produced supersonic fighter in the world and served with more than fifty Air Forces over four continents. The MiG-21PFM was the advanced all-weather variant equipped with a radar.

The MiG-21 was one of a long list of Mikoyan-Gurevich bureau designs to be integrated into the armed forces of the Soviet Union, the Warsaw Pact, and allied client states. Its predecessors included such notable types as the MiG-15, MiG-17, and MiG-19.

The roots of MiG-21 project reach back to the first half of the fifties. In 1954, when the preliminary design study Ye-1 came to its end and was quickly replaced by the reworked Ye-2 prototype. Both had a swept wing. The first MiG design to feature the delta wing was the Ye-4 prototype, which took to the air for the first time on June 16, 1955. It was also demonstrated a year later at the Moscow airfield Tushino.

The new aircraft designated MiG-21 was the first successful Soviet design integrating fighter and interceptor characteristics. It was also quite light Mach 2 aircraft, although the long-lasting development added weight gradually. The design featured sleek fuselage with the front air intake and shock cone. This feature later limited future development due to the very small space available for the radar.

## The way to the interceptor

The first of the new line to enter production was the MiG-21F, which together with the MiG-21P and MiG-21F-13 represented the first generation of this line. These versions were in production through the end of the fifties and the beginning of the sixties. Simultaneously the interceptor variant design equipped with the Air-to-Air guided missiles was issued on July 24, 1958, i.e. even before the development of the first Mach 2 fighter reached the stage of serial production. The interceptor variant was to be capable to conduct the missions in all-weather/day and night conditions, which steered the development to the installation of the radar type RP-9-21 in case of aircraft from the first six production series, or RP-21, in case of aircraft from all subsequent series (starting with the 3<sup>rd</sup> aircraft from the 7<sup>th</sup> production series). The radar was installed inside the new control cone of the air inlet. All the subsequent changes necessitated increase of the length of the front fuselage in the area in front of the cockpit and, also the diameter of the front circular air trap rose from 690 mm to 870 mm. The additional avionics were placed in the space behind the cockpit, which required reduction of the volume of the front fuselage fuel tank from 235 l to only 60 l starting from the aircraft with serial No. 76210501. To countereffect this fuel volume decrease, the tank No. 7 was installed in the widened ridge superstructure extending from the canopy backwards. Also the volume of the front pair of wing integral tanks was increased. The total fuel volume was 2,680 l (210 l more compared to the F-13 variant). The 30mm cannon of the F-13 variant was deleted, as the PF and PFM variants were relying on the missiles only. There were also many smaller changes in comparison to the F-13 variant. Subsequent versions included the FL, PFM and R with production of these peaking at the end of the sixties. The third generation started production in 1968 and included the most advanced versions of MiG-21 like the M, SM, MF, SMT or Bis, among others.



item No. 8237

Simultaneously, two-seat training versions were also produced designated MiG-21U, UM and US. Production of the MiG-21 ended in 1985. Soviet Union produced 10,645 examples of all versions, 194 were built in Czechoslovakia and 657 in India.

## The kit: MiG-21PFM

In 1961, the MiG-21PF all-weather interceptor was introduced into production at Plant 21 in Gorky. This was a modification of the MiG-21F-13, in which the radar rangefinder was replaced by the RP-21 radar. The installation of an enlarged fuel tank in the extended dorsal fuselage behind the cabin was another change. The armament options were expanded to include RS-2US (AA-1 Alkali) anti-aircraft missiles. Soon after, work began on other improvements, most notably the blown flaps and reworked brake parachute. The Je-7SPS prototype was used for testing. The production version was designated MiG-21PFS and was put into production at Plant 21 in 1963. The Je-7SPS prototype was subsequently used to test a modified weapon system, where the RP-21 radar was supplemented with an ASP-PF optical gunsight and a Samosvet IR sight. The ASP-PF acquired target data from the radar, which increased the accuracy of the guided AA missiles fired on air targets as well as of attacks against ground targets using unguided missiles and bombs. In addition, the Samosvet enabled the search and targeting of air targets in night conditions. Due to the new equipment, the one-piece canopy was changed for two-piece one, which lacked 62mm armoured windshield glass. The side opening canopy got the periscope for better rearward visibility. As more space was needed for the avionics, the volume of the No. 1 fuel tank had to be reduced. The R-3S (AA-2 Atoll) anti-aircraft missile was added to the weaponry. The modified Je-7SPS prototype was redesignated Je-7M and completed on October 17, 1962. In 1964, after military examinations, the type was released for serial production under the designation MiG-21PFM. It shared a wider tail fin with the MiG-21PFS aircraft of 10th production series and later. Both also shared the code designation Izdelyie 94. Between 1963 and 1966, a total of 944 MiG-21PFMs (Fishbed F) were produced by the Plant 21, but this number includes the late series MiG-21PFS, which did not differ externally from the PFM. All of the Gorky-built MiG-21PFMs and PFSs were reserved for the Soviet Air Force (VVS), while the aircraft for foreign customers were built at Moscow Plant No. 30. Although the MiG-21PFM was designed primarily for air defense missions, it could also carry unguided missiles and bombs. Later, it was decided to install the Ch-66 (AS-7 Kerry) tactical air-to-ground missile with radar beam guidance. The reason for the choice of the MiG-21PFM was that it was the only combat aircraft with a radar that was present in the frontline VVS units. A good number of Soviet MiG-21PFMs were modified to carry two Ch-66s at repair plants. However, this armament reduced the performance of the aircraft, limited the flight envelope and made piloting of such an armed aircraft tricky.

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 započítím 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 \* 記号の説明

OPTIONAL  
VOLBABEND  
OHNOUTOPEN HOLE  
VYVRTAT OTVORSYMMETRICAL ASSEMBLY  
SYMETRICKÁ MONTÁŽREMOVE  
ODŘÍZNOUTREVERSE SIDE  
OTOČITAPPLY EDUARD MASK  
AND PAINT  
POUŽÍT EDUARD MASK  
NABARVITPLEASE CHECK THE LATEST VERSION OF THE INSTRUCTIONS ON [www.eduard.com](http://www.eduard.com)

PARTS



DÍLY



TEILE

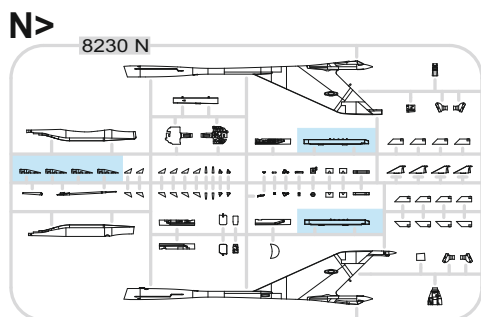
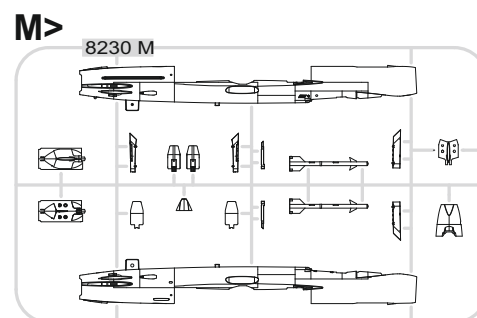
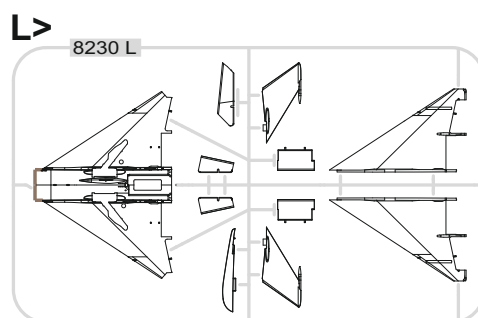
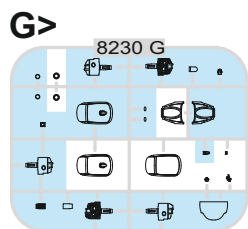
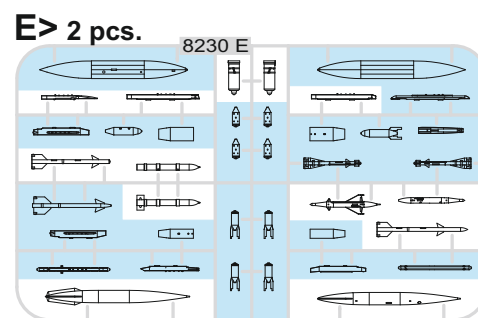
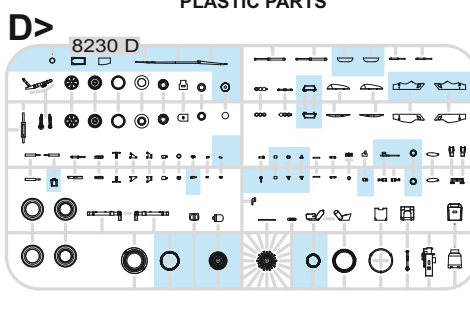
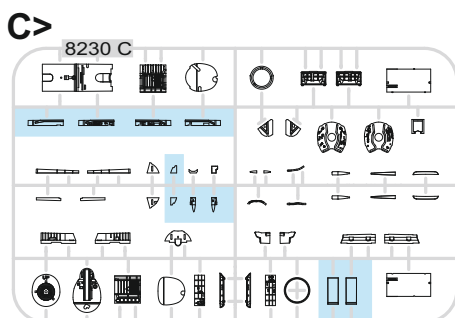


PIÈCES

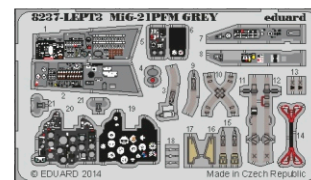
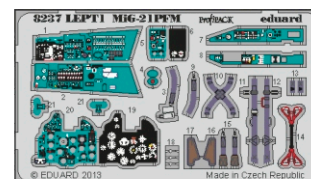
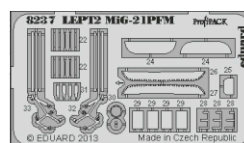


部品

## PLASTIC PARTS

eduard  
MASK

## PE - PHOTO ETCHED DETAIL PARTS



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

COLOURS



BARVY



FARBEN



PEINTURE



色

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H1	C1	WHITE
H3	C3	RED
H4	C4	YELLOW
H5	C5	BLUE
H8	C8	SILVER
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H26	C66	BRIGHT GREEN
H27	C44	TAN
H44	C51	FLESH
H47	C41	RED BROWN
H51	C11	LIGHT GULL GRAY

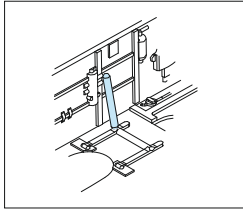
AQUEOUS	Mr.COLOR	
H53	C13	NEUTRAL GRAY
H58	C351	INTERIOR GREEN
H66	C119	RLM79 SAND YELLOW
H67	C115	RLM65 LIGHT BLUE
H70	C60	RLM02 GRAY
H72	C369	DARK EARTH
H77	C137	TIRE BLACK
H81	C55	KHAKI
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN
H304	C304	OLIVE DRAB
H317	C317	GRAY

AQUEOUS	Mr.COLOR	
H318	C318	RADOME
H324	C324	LIGHT GRAY
H328	C328	BLUE
H340	C340	FIELD GREEN
H417	C117	LIGHT BLUE
	C370	AZURE BLUE
Mr.METAL COLOR		
	MC213	STAINLESS STEEL
	MC214	DARK IRON
Mr.COLOR SUPER METALLIC		
	SM201	SUPER FINE SILVER

**1** = **H308 C308 GRAY** - MARKINGS **A;D**  
**C391 INTERIOR GREEN** - MARKINGS **B;C;E**

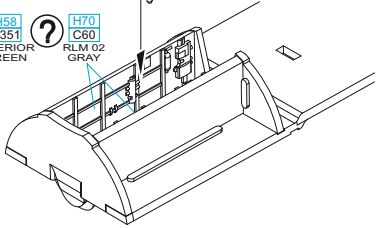
**8237 - LEPT1 - MARKINGS B,C,E**

**8237 - LEPT3 - MARKINGS A,D**

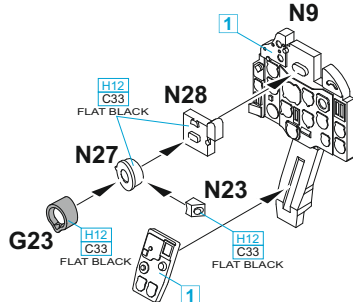


**H58 C351 INTERIOR GREEN** **H70 C60 RLM 02 GRAY** **D62**

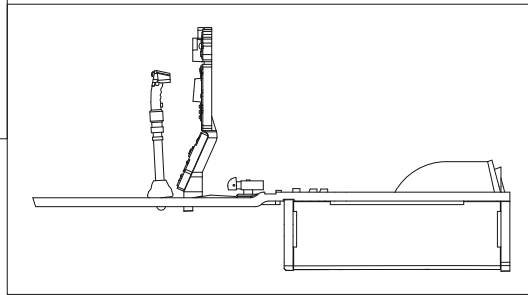
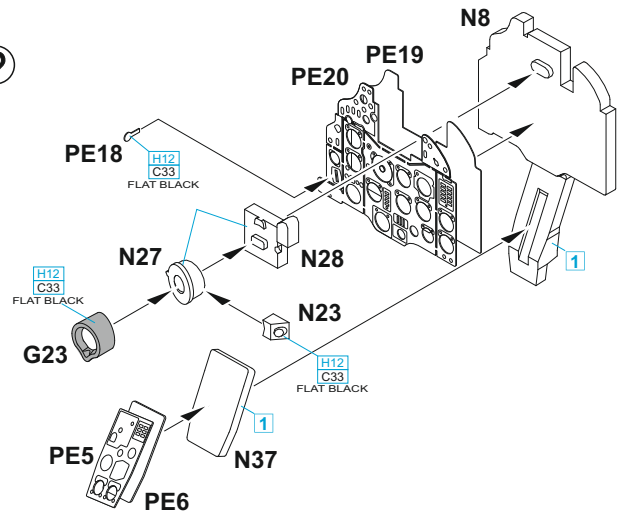
**H58 C351 INTERIOR GREEN** **H70 C60 RLM 02 GRAY**



**OPTIONAL: decal 42**

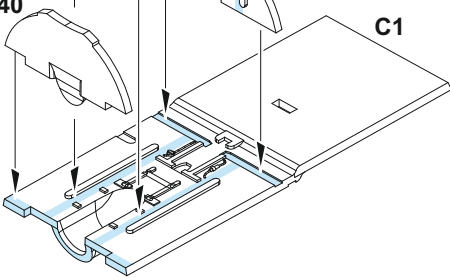


**OPTIONAL: decal 46**



**C49** **C52**

**C40** **C30** **C19** **C1**



**D20 - OPEN CANOPY ONLY**

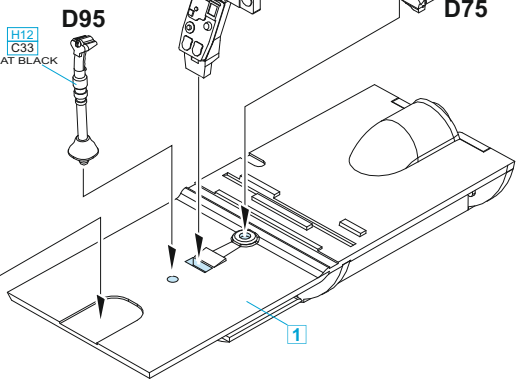
**D20**

**2 pcs.** **H47 C41 RED BROWN** **PE31**

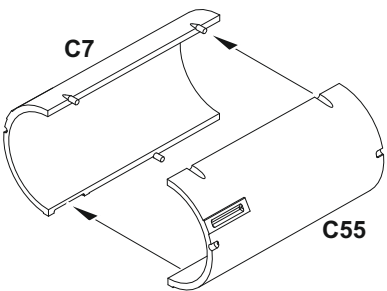
**H8 C8 SILVER** **D75**

**H12 C33 FLAT BLACK** **D95**

**H12 C33 FLAT BLACK**



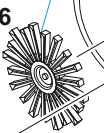
**C7**



**C55**

**H26 C66 BRIGHT GREEN** **C4**

**D86**



**H8 C8 SILVER** **D38**

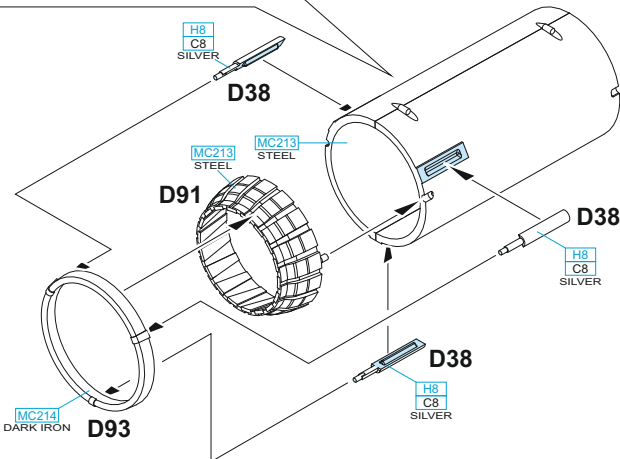
**MC213 STEEL** **D91**

**MC213 STEEL**

**H8 C8 SILVER** **D38**

**MC214 DARK IRON** **D93**

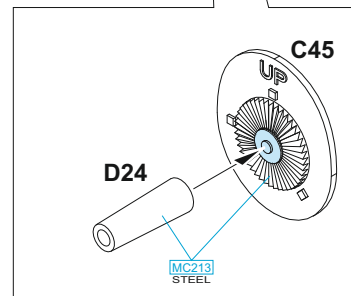
**H8 C8 SILVER** **D38**

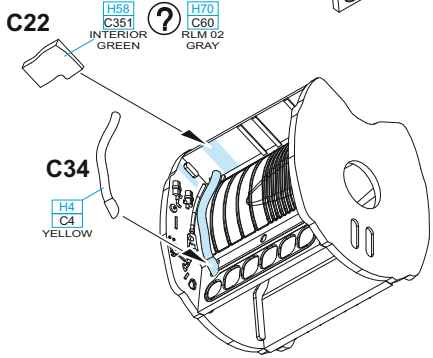
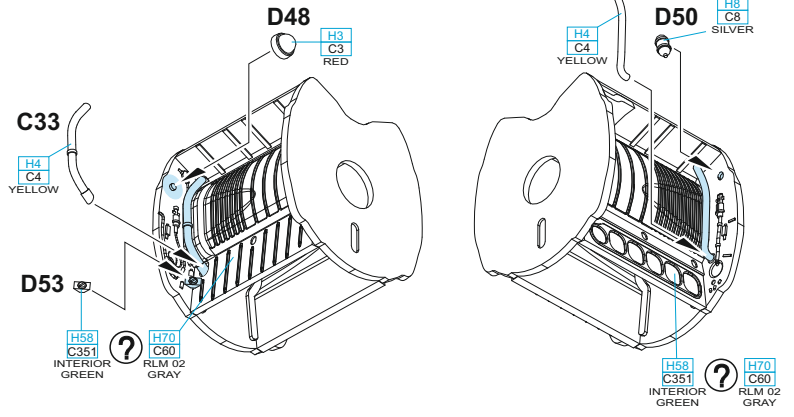
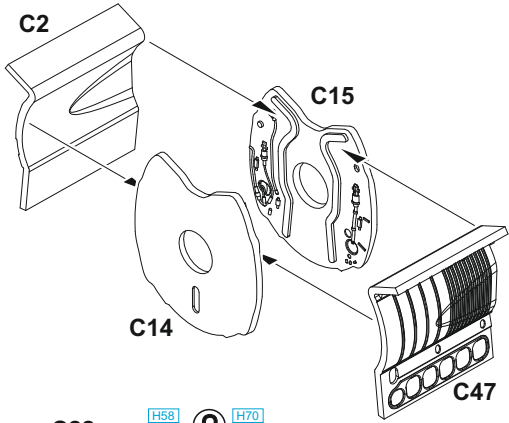


**C45**

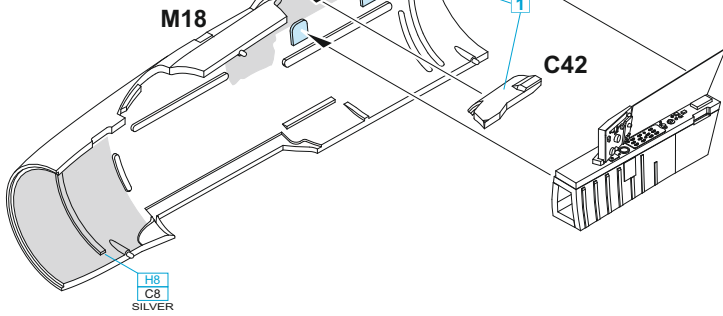
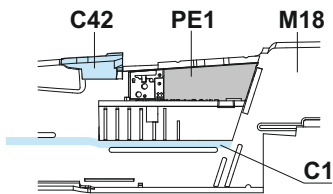
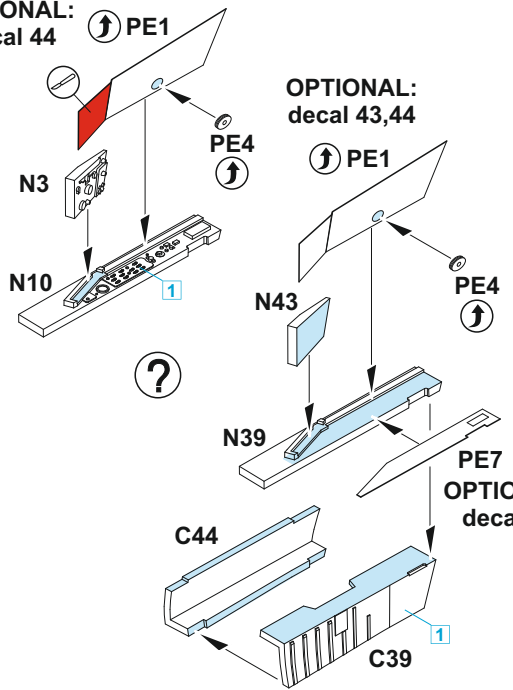
**D24**

**MC213 STEEL**

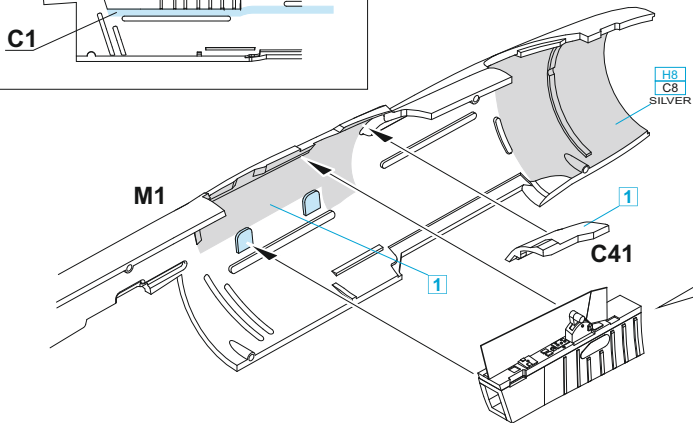
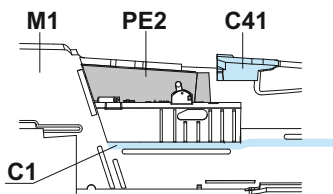
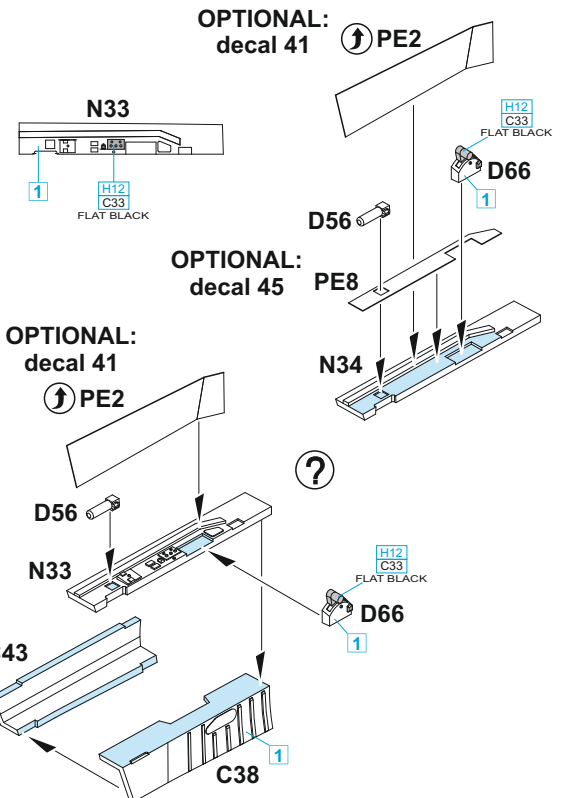


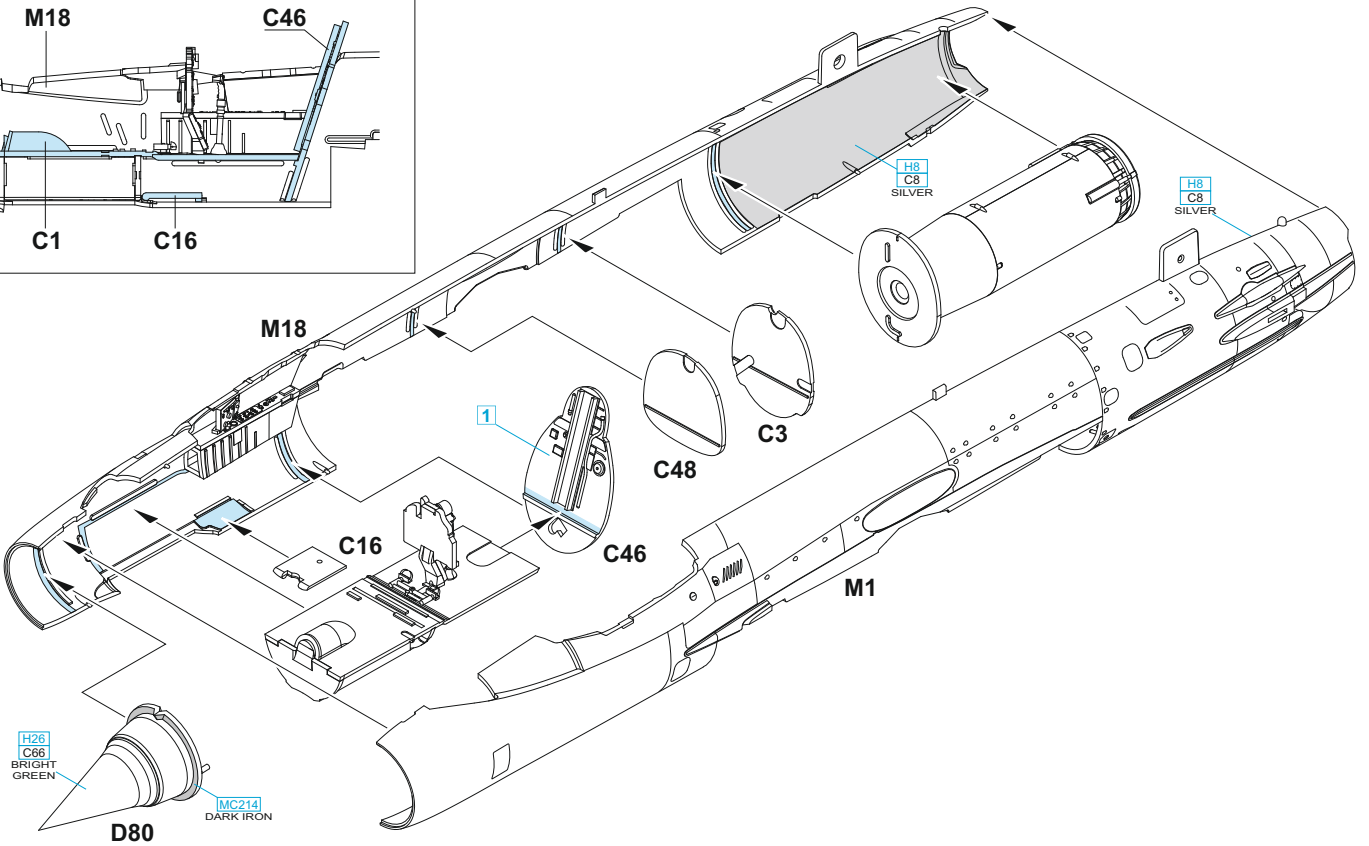
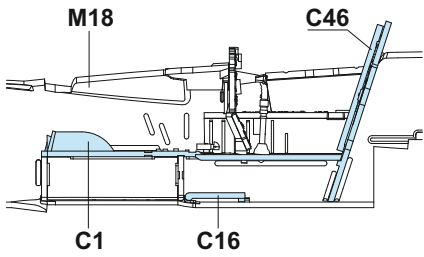


OPTIONAL:  
decal 44

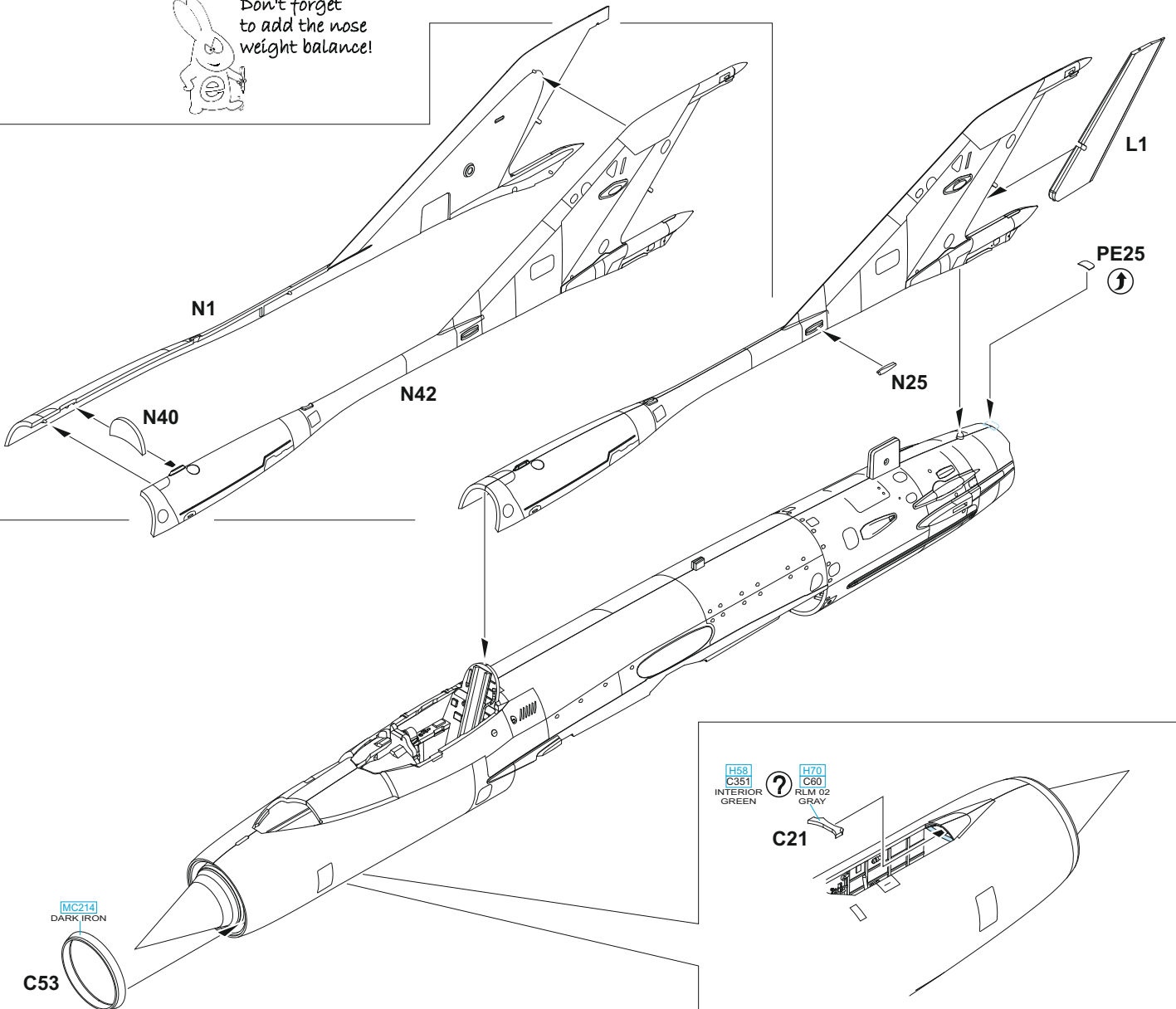


OPTIONAL:  
decal 41

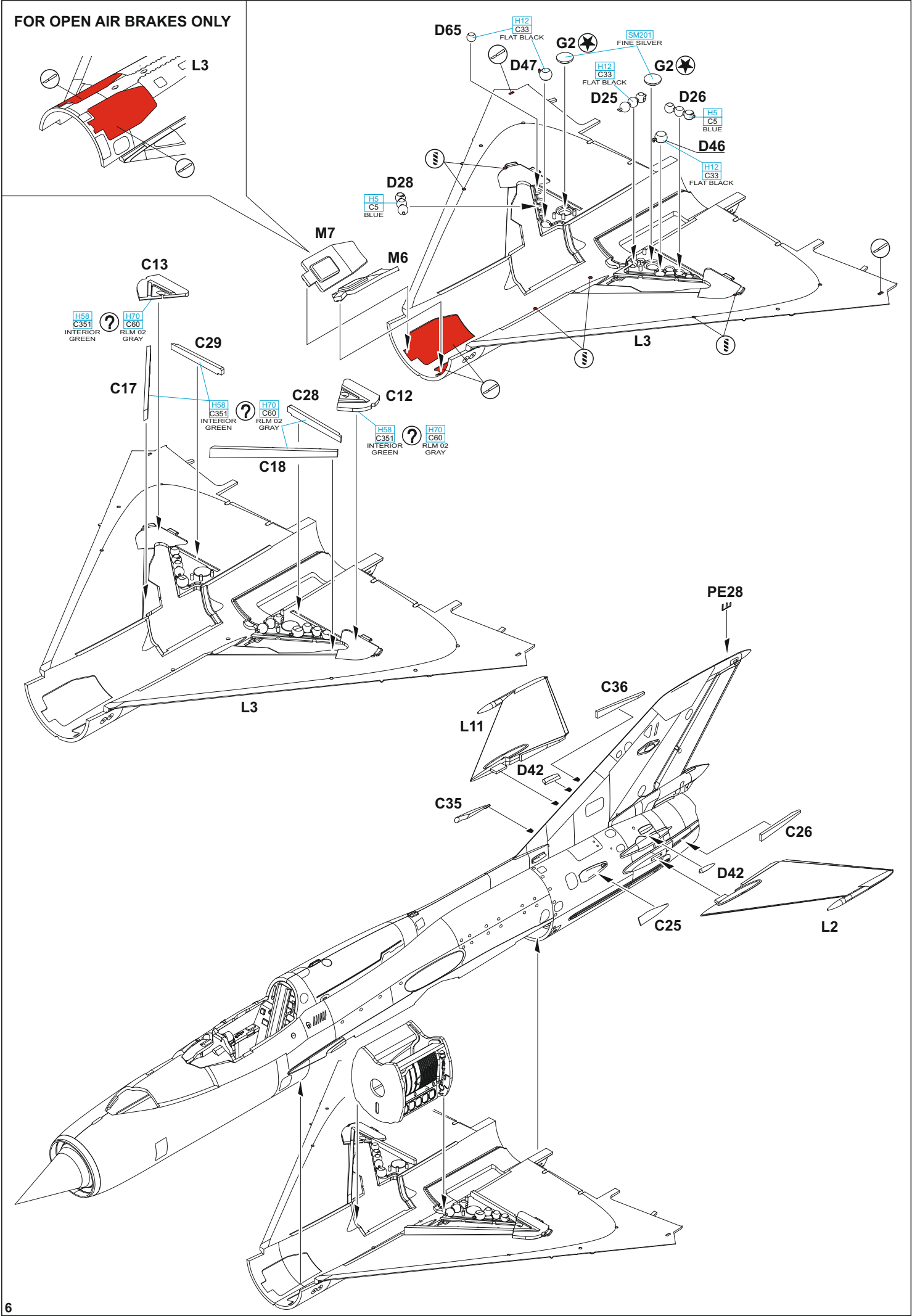


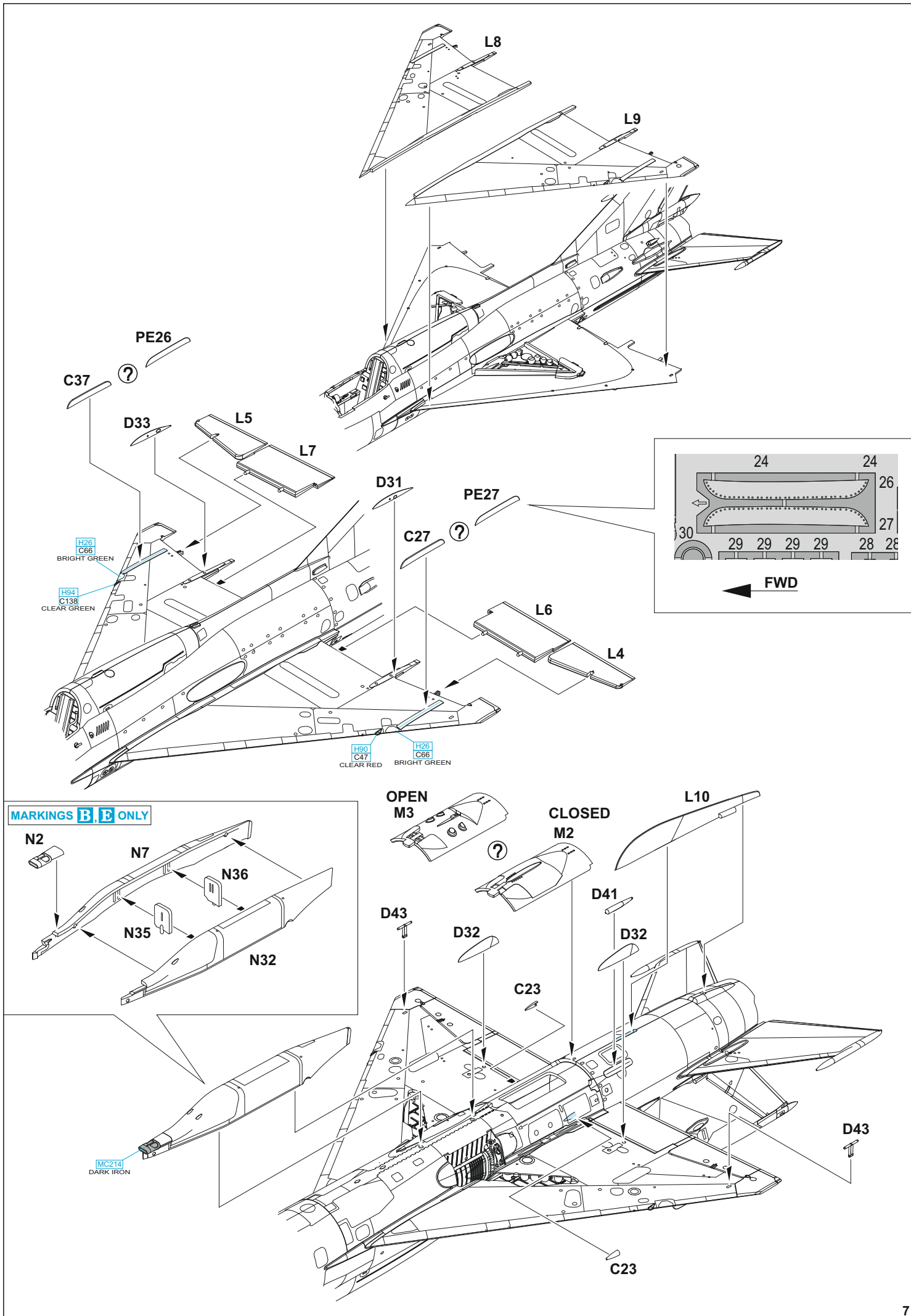


Don't forget  
to add the nose  
weight balance!



**FOR OPEN AIR BRAKES ONLY**





MARKINGS **B, E** ONLY

OPEN

M3

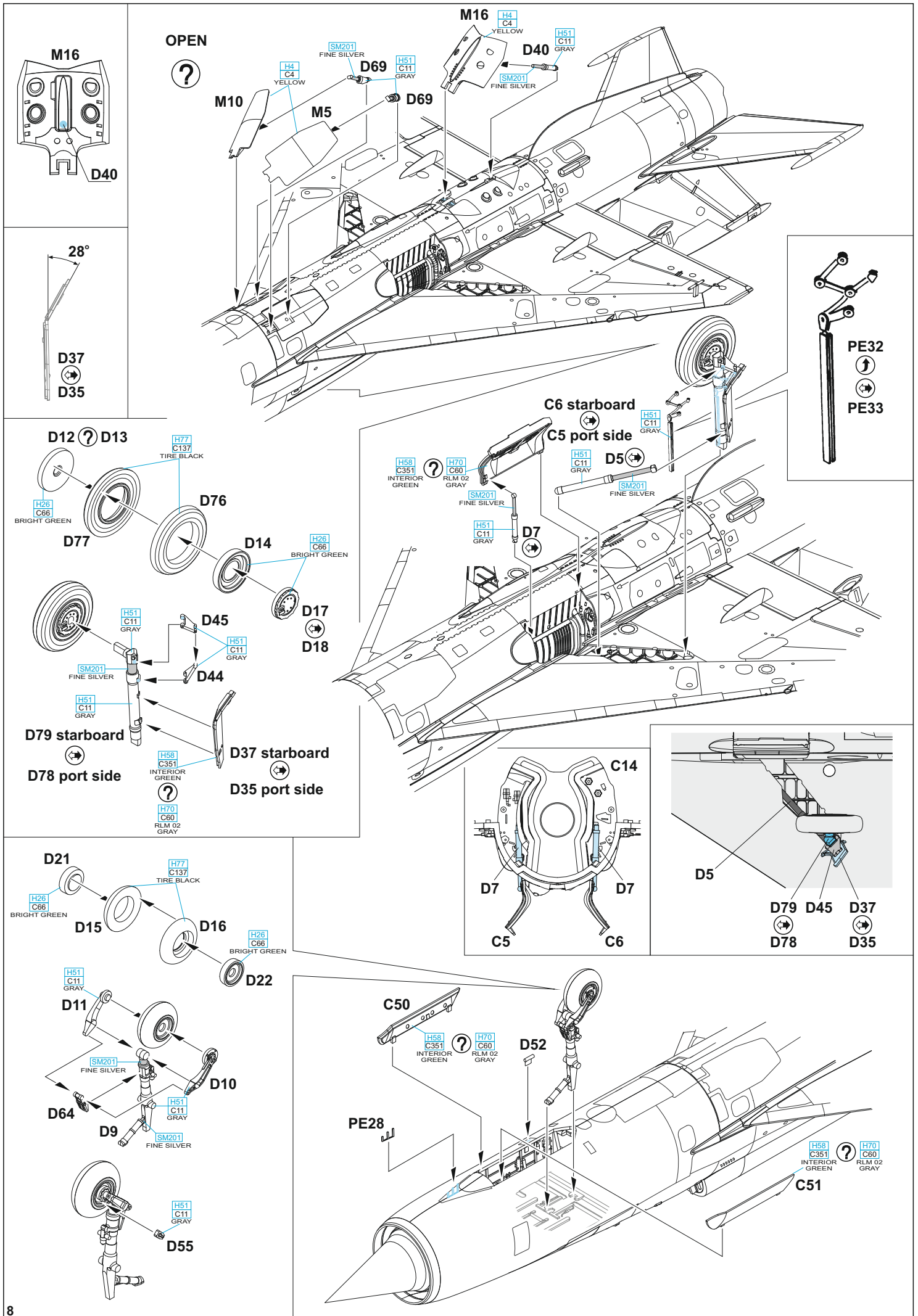
CLOSED

M2

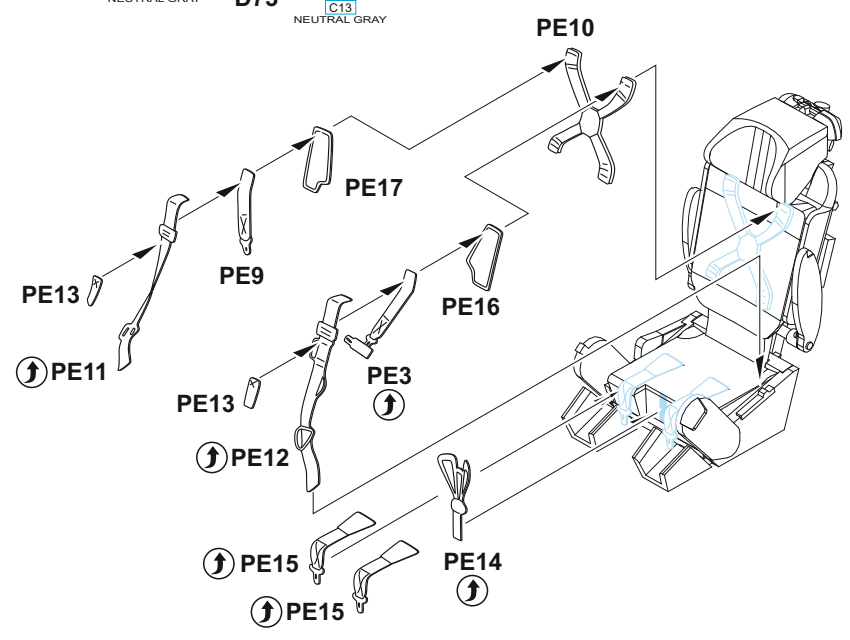
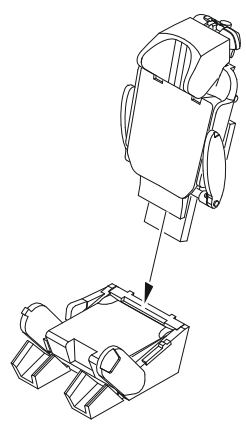
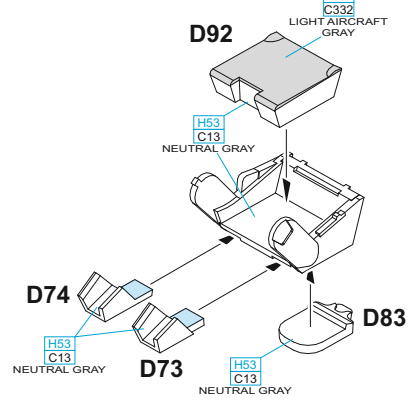
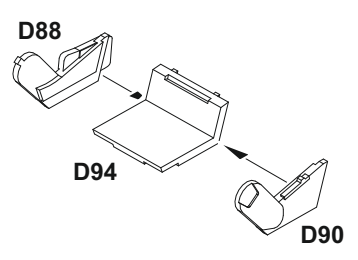
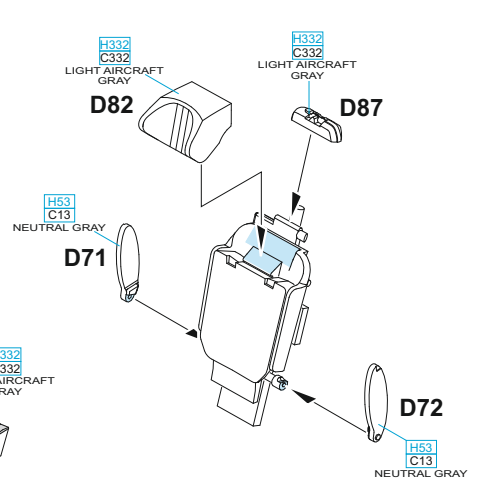
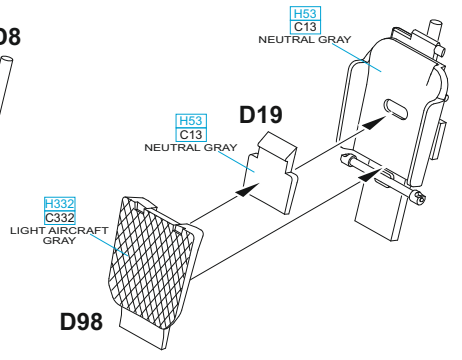
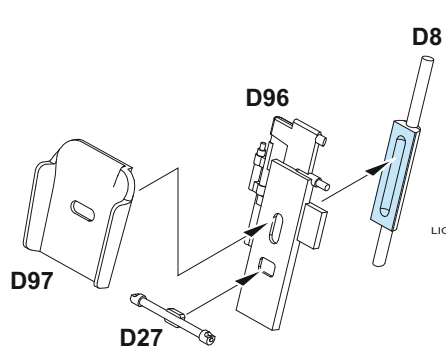
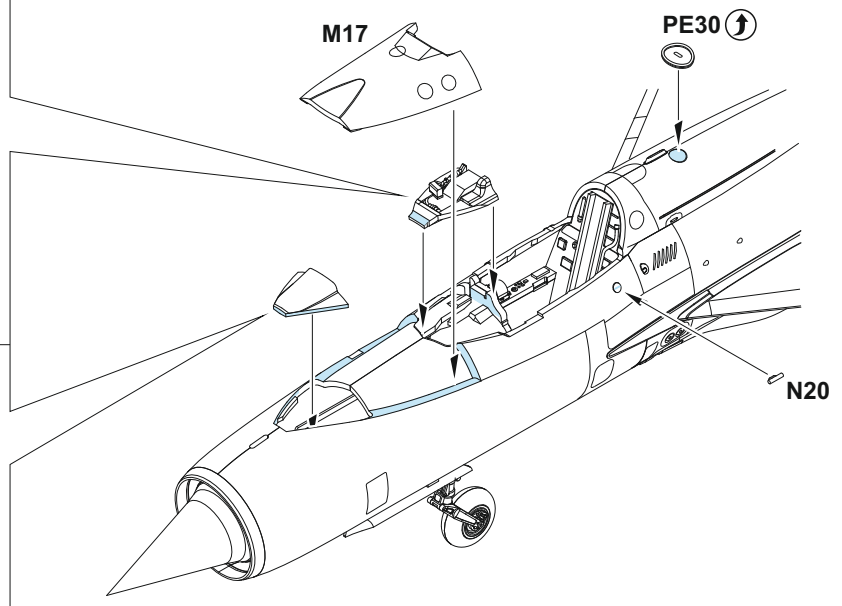
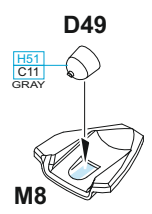
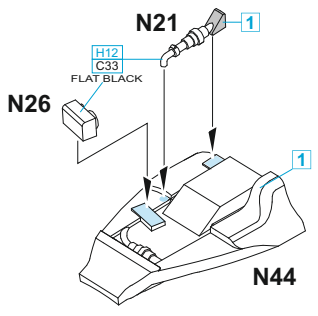
L10

D43

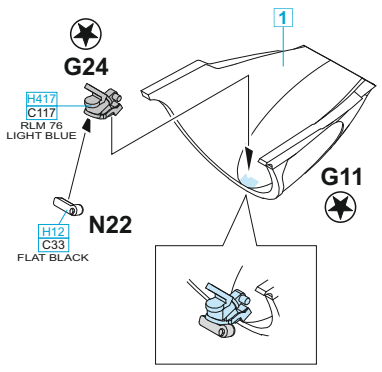
C23



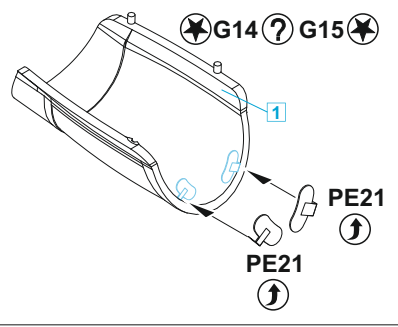
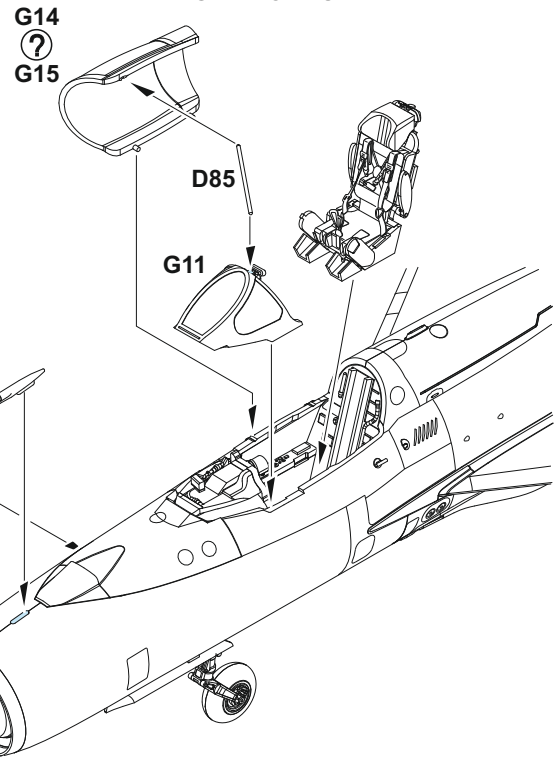




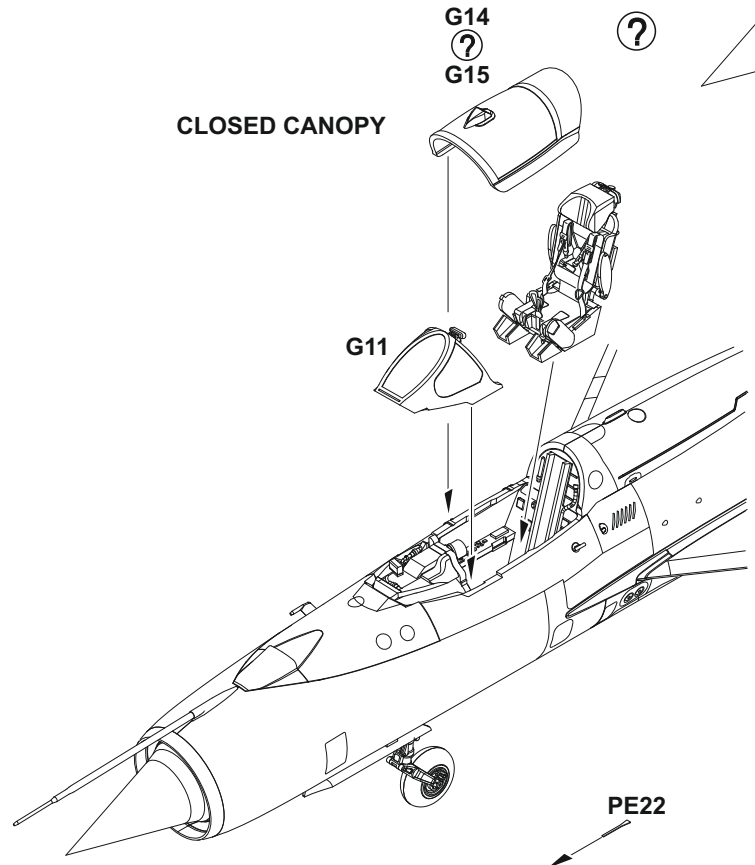
**MARKING C ONLY**



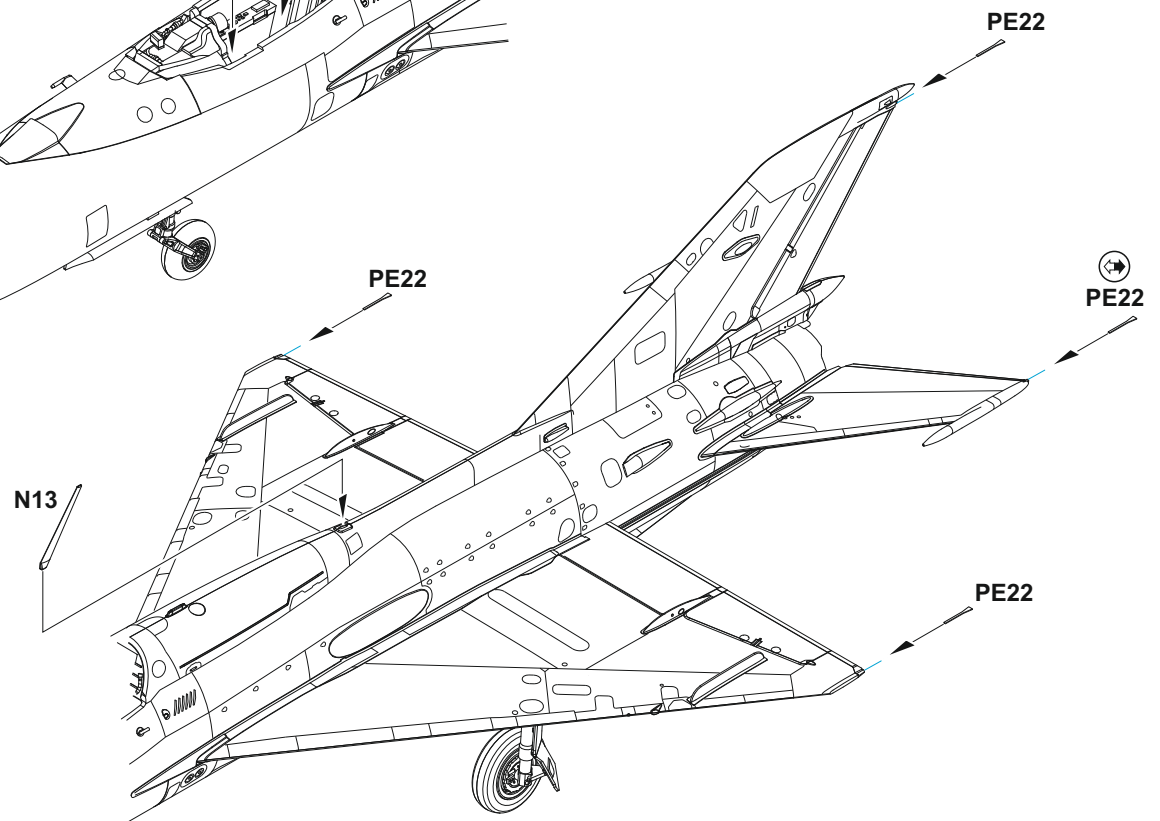
**OPEN CANOPY**



**CLOSED CANOPY**

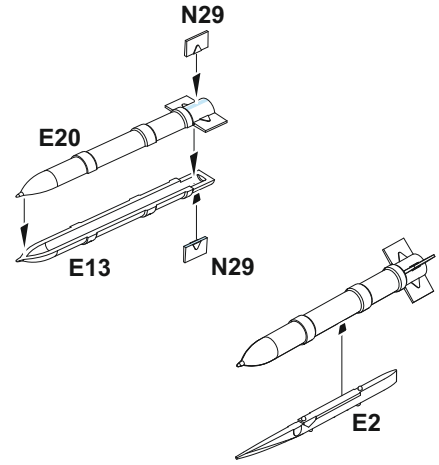
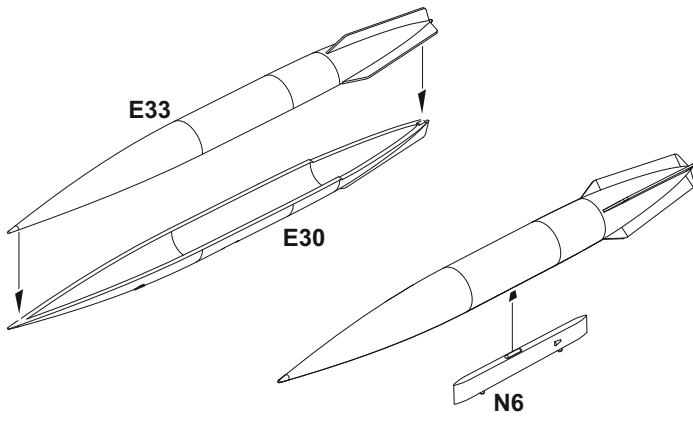


MARKING C	MARKINGS A, D	MARKINGS B, E
G14, G17	G15	G15

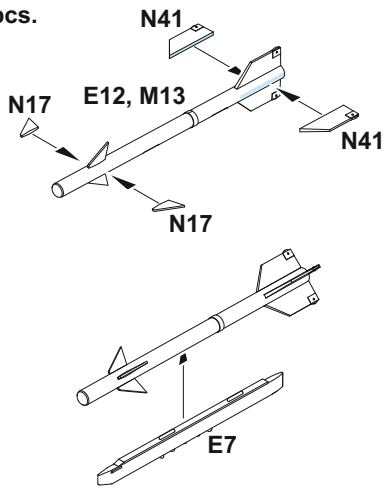


**EXTERNAL FUEL TANK 490I**

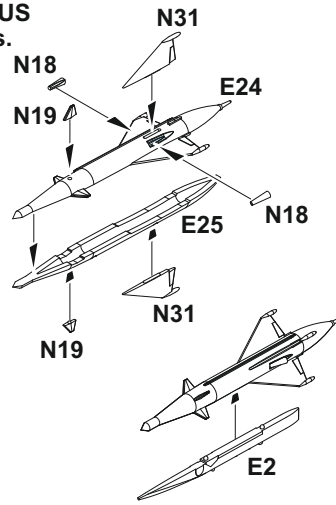
**S-24**  
2 pcs.



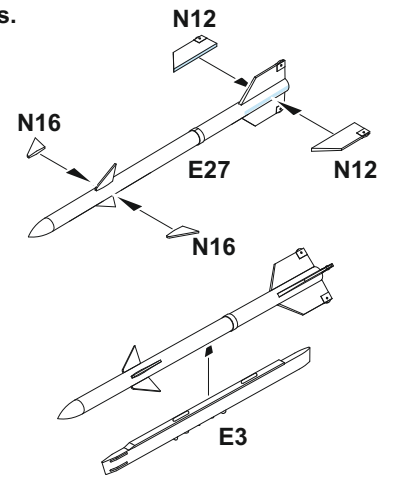
**R-3S**  
4 pcs.



**RS-2US**  
2 pcs.

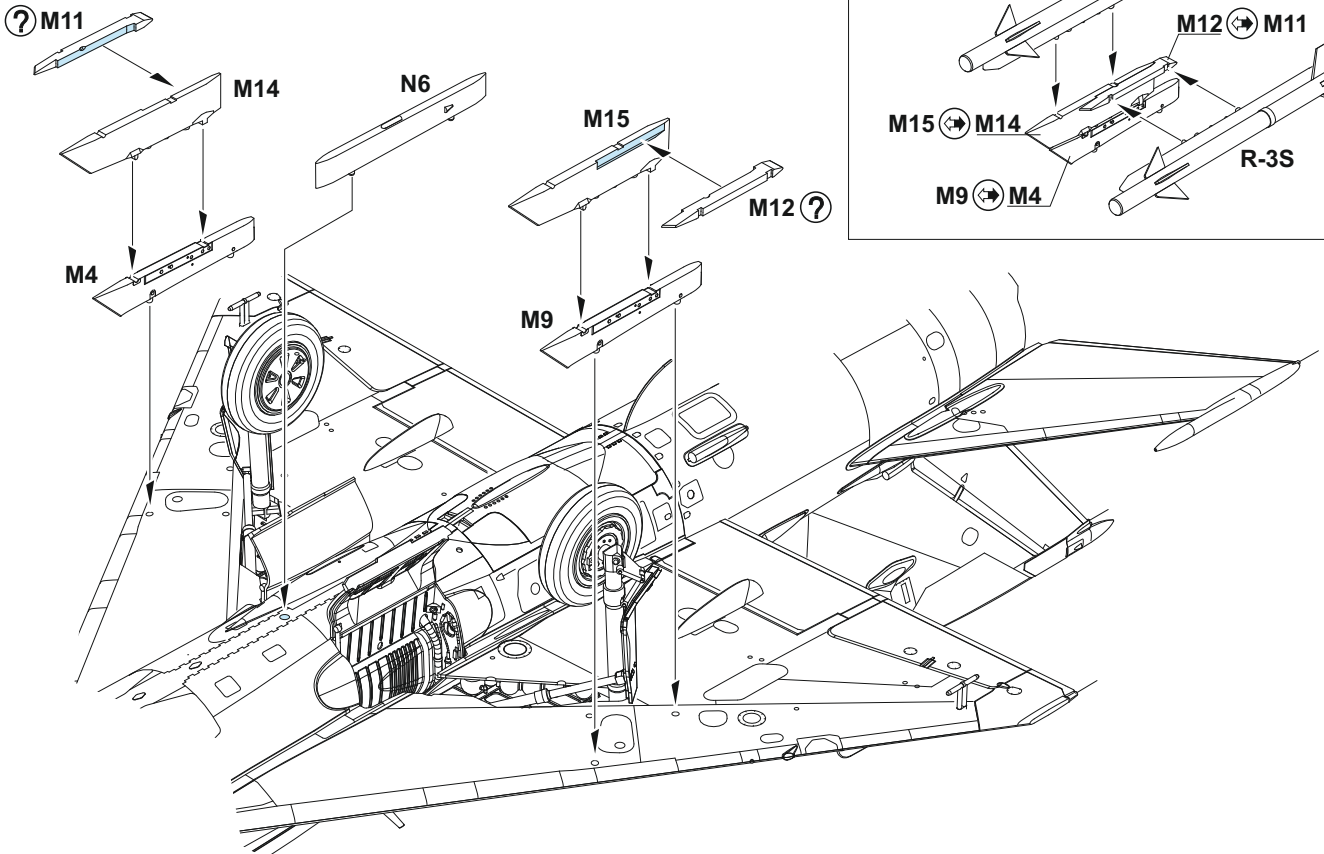
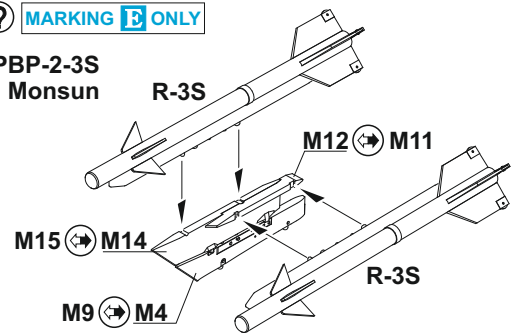


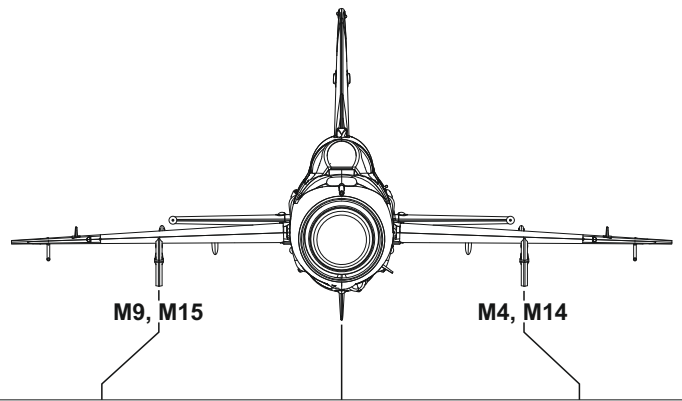
**R-3R**  
2 pcs.



**MARKING E ONLY**

**PBP-2-3S**  
Monsun





**EXTERNAL  
FUEL  
TANK 490I**

**TO CHOOSE WEAPON AND EXTERNAL  
FUEL TANK OPTION PLEASE  
FOLLOW YOUR REFERENCE.**

**S-24**



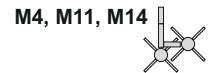
**RS-2US**



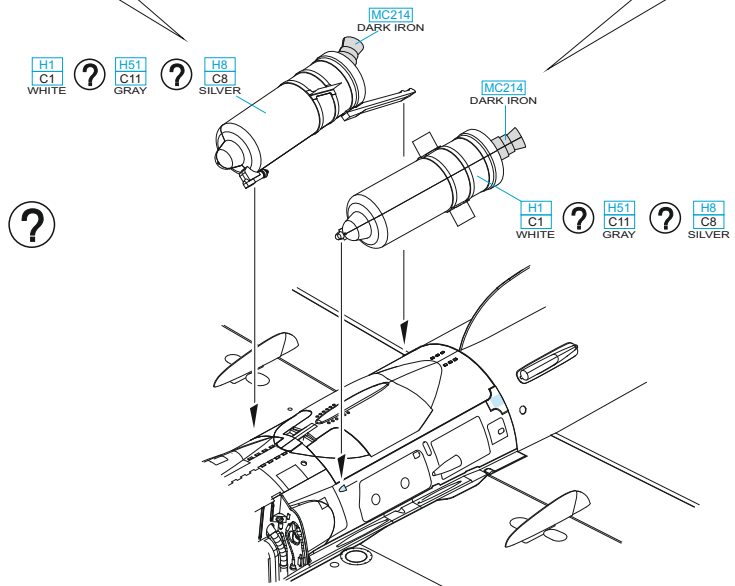
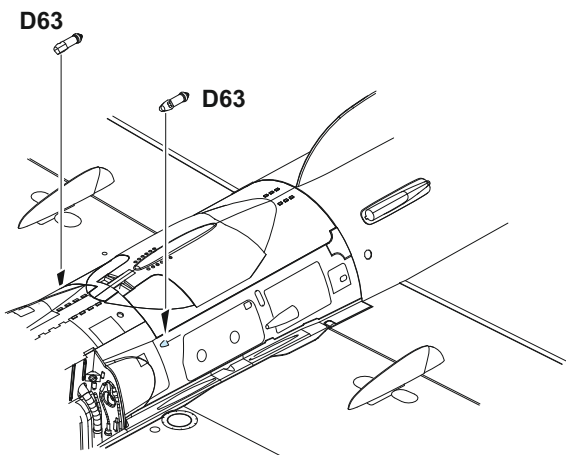
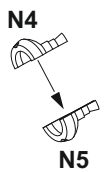
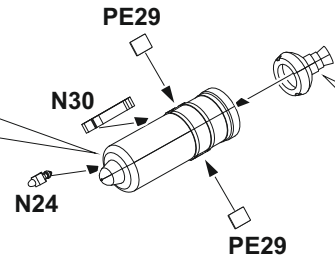
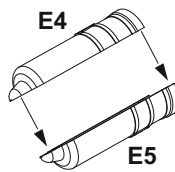
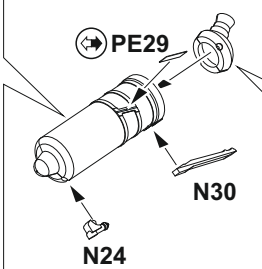
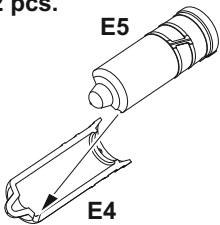
**R-3S**



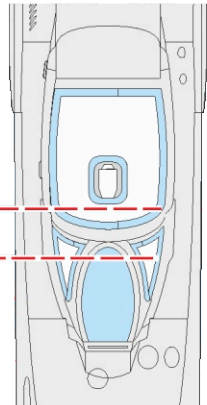
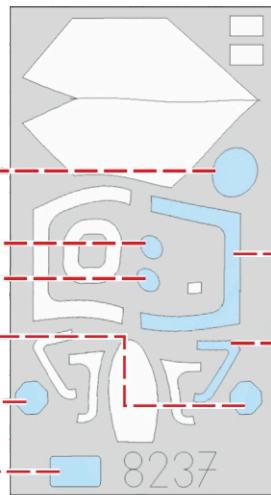
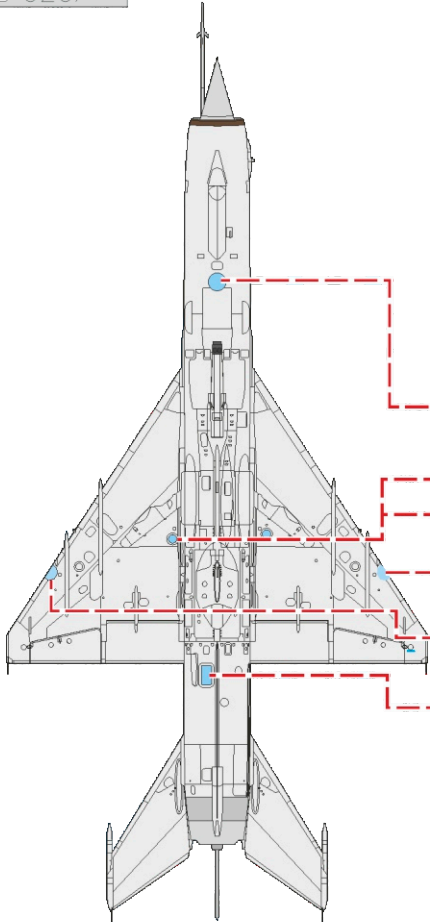
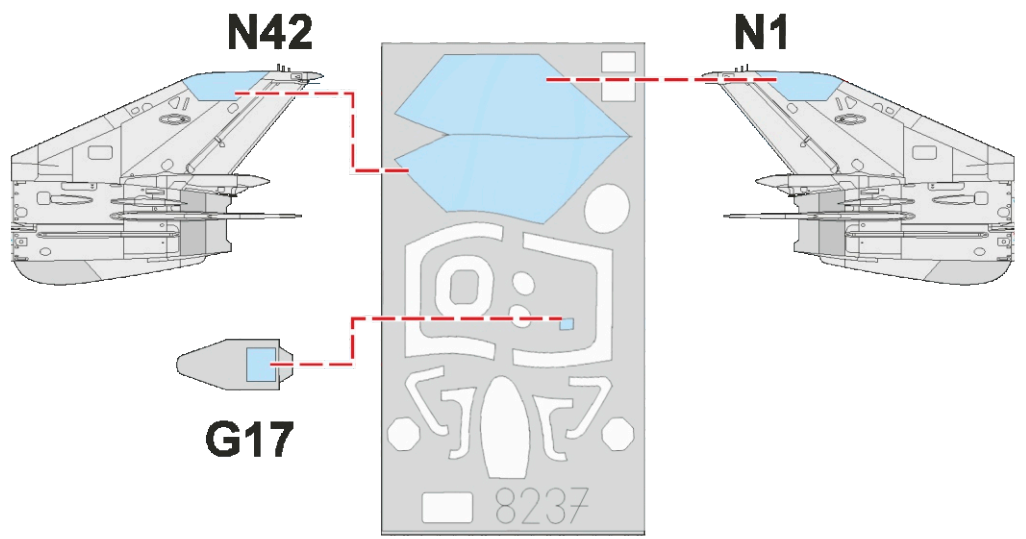
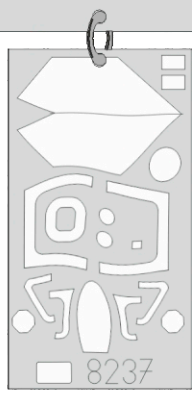
**PBP-2-3S  
Monsoon**



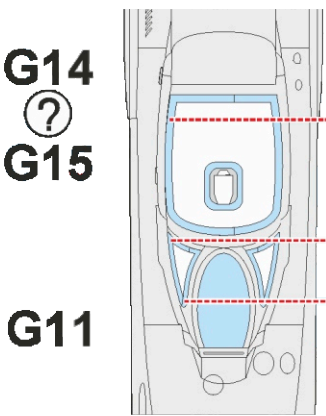
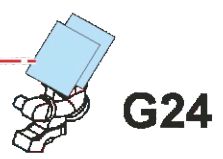
**SPRD  
2 pcs.**



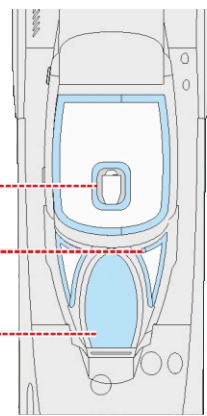
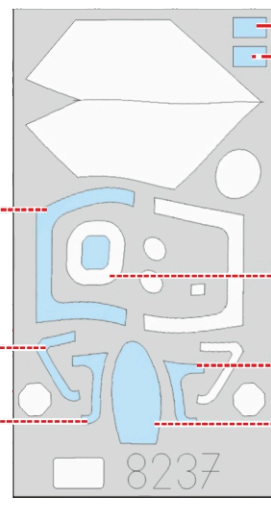
8237



G14  
G15  
G11



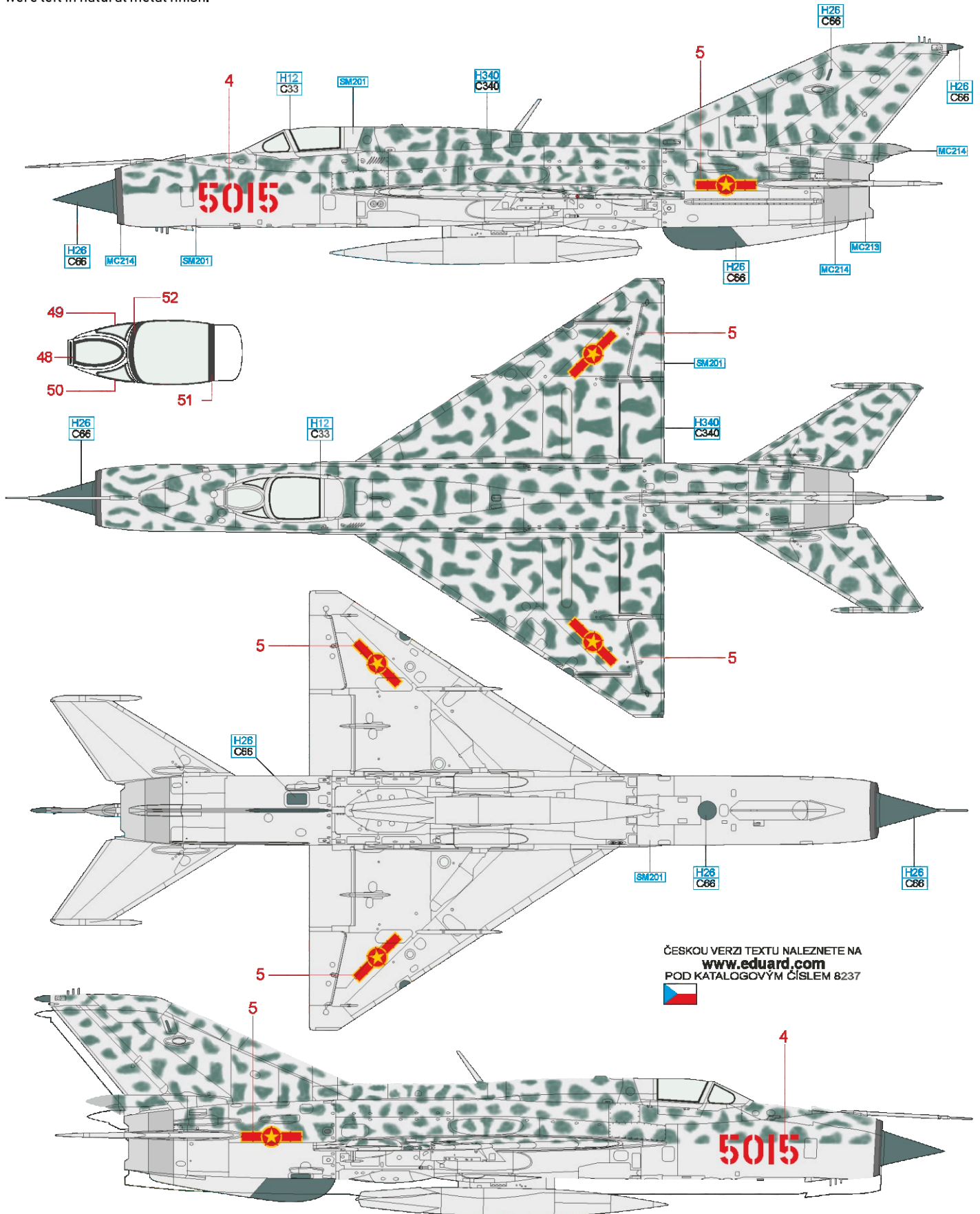
G14  
G15  
G11



G14  
G15  
G11

# A 921 Fighter Regiment, Vietnamese People's Army Air Force, Noi Bai airfield, Democratic Republic of Vietnam, 1968

This aircraft was flown by 921 Fighter Regiment "Sao Do" (Red Star) in 1968. The first examples of MiG-21PFM were delivered to this unit during that year. Some sources say that this particular aircraft was flown by Nguyen Van Coc, a fighter ace credited with nine kills. The B&W photos of this aircraft can be interpreted in several ways. One of the theories says that green splotches were sprayed on the upper sides. The splotches were not sharp-edged, and the surrounding area was also covered by the thin layer of the green color. This gave this area light-green appearance. The canopy frame and the antenna were left in natural metal finish.

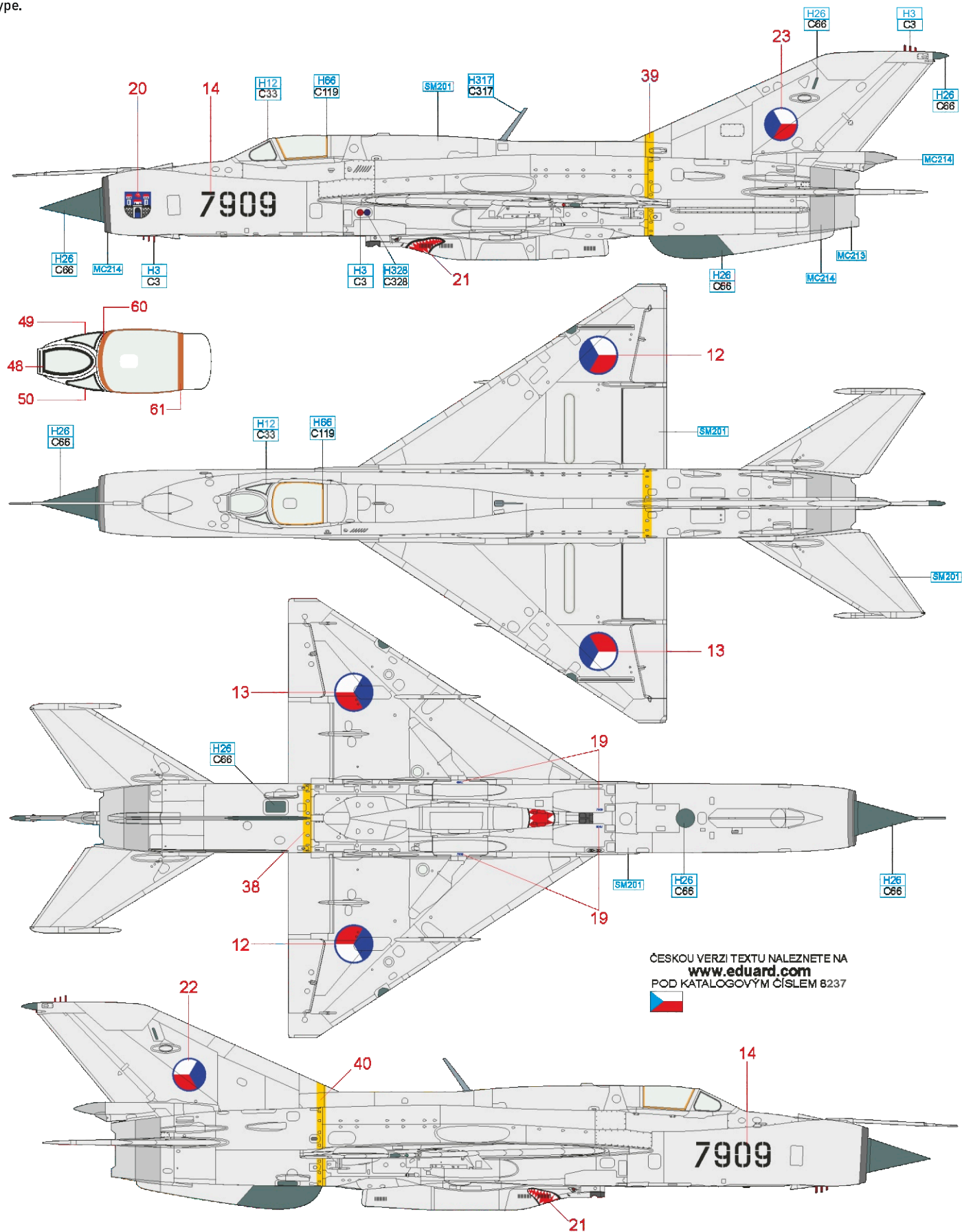


ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
 POD KATALOGOVÝM ČÍSLEM 8237



# B No. 7909, 11 Fighter Air Regiment, Czechoslovak Air Force, Žatec airfield, Czech and Slovak Federative Republic, March 1991

The No. 7909 MiG-21PFM was delivered to Czechoslovakia on January 29, 1969. At the beginning it was assigned to 9 slp (9<sup>th</sup> Fighter Air Regiment); from April 1973 served with 1 slp. From December 1982 onwards this aircraft was flown by 11 slp. It was put out of operation in March 1991 and consequently flown to the disposal site at the Vodochody airfield on March 20, 1991. The coat of arms of Žatec town was painted on the nose, the yellow band on the tail identified the aircraft which was to be put out of operation. The rest of the aircraft remained in natural metal finish, which was a common practice regarding this type.

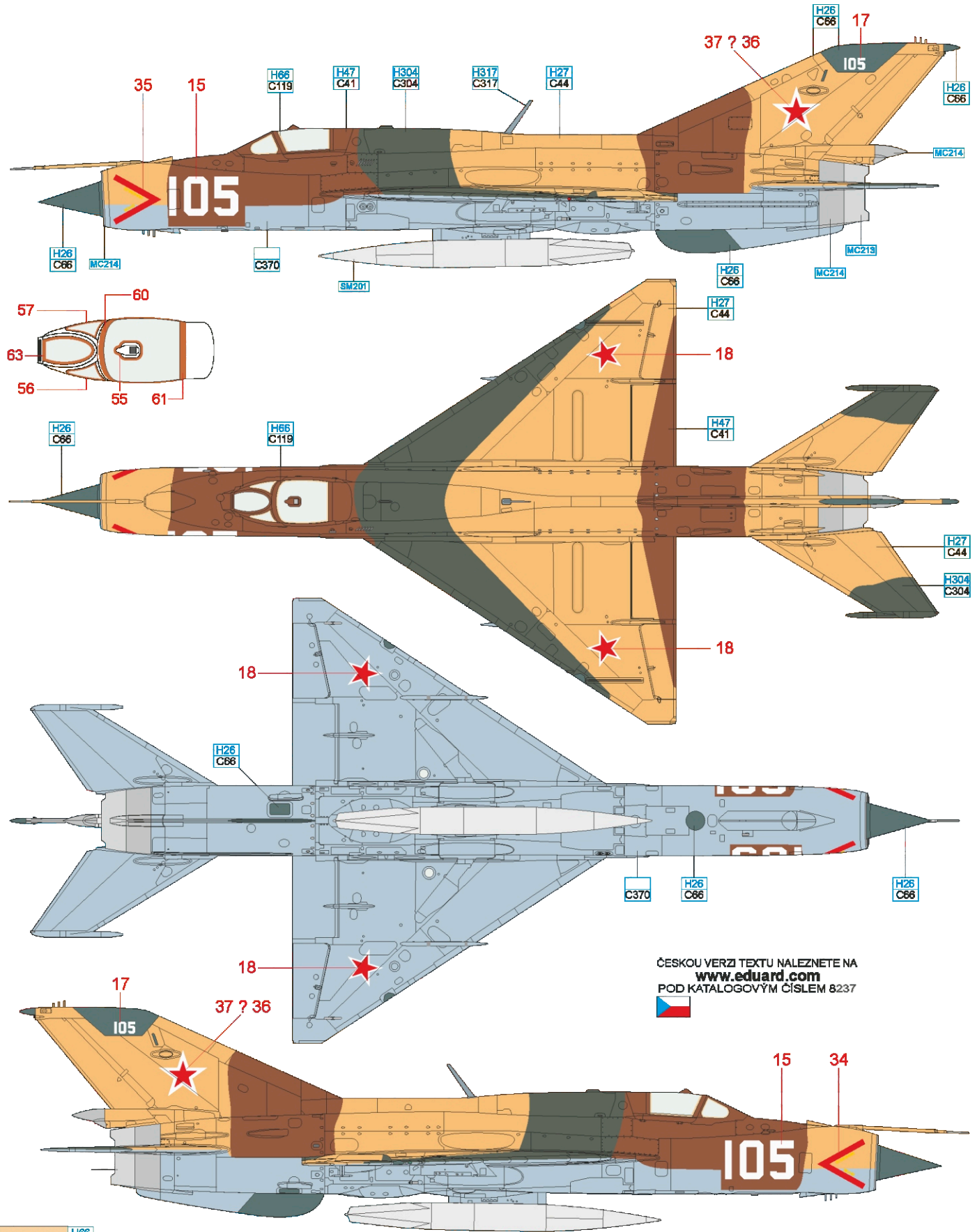


ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
 POD KATALOGOVÝM ČÍSLEM 8237



**C** Barnaul Higher Air Force School, Kamen na Obi/Slavgorod airbases, the Soviet Union, ca 1988

Three-digit numbers were used for aircraft flown by Air Force schools in Soviet Union. The White 105 served with Barnaul Higher Air Force School in late 80ties. The exact Regiment that flew this MiG is not known. It belonged either to 59 UAP (59<sup>th</sup> Training Air Regiment) based in Kamen na Obi AFB or to 96 UAP that used Slavgorod AFB as its home. The colorful camouflage was applied during the service in the school. Note the large area of the brown camouflage color under the white fuselage number, where the former two-digit number used by the frontline unit, the previous operator, was overpainted.



ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
POD KATALOGOVÝM ČÍSLEM 8237



LIGHT SAND **H66**  
**C119**

SILVER **SM201**

STEEL **MC213**

DARK IRON **MC214**

AZURE BLUE **C370**

SAND **H27**  
**C44**

BROWN **H47**  
**C41**

GREEN **H304**  
**C304**

GREEN **H26**  
**C66**

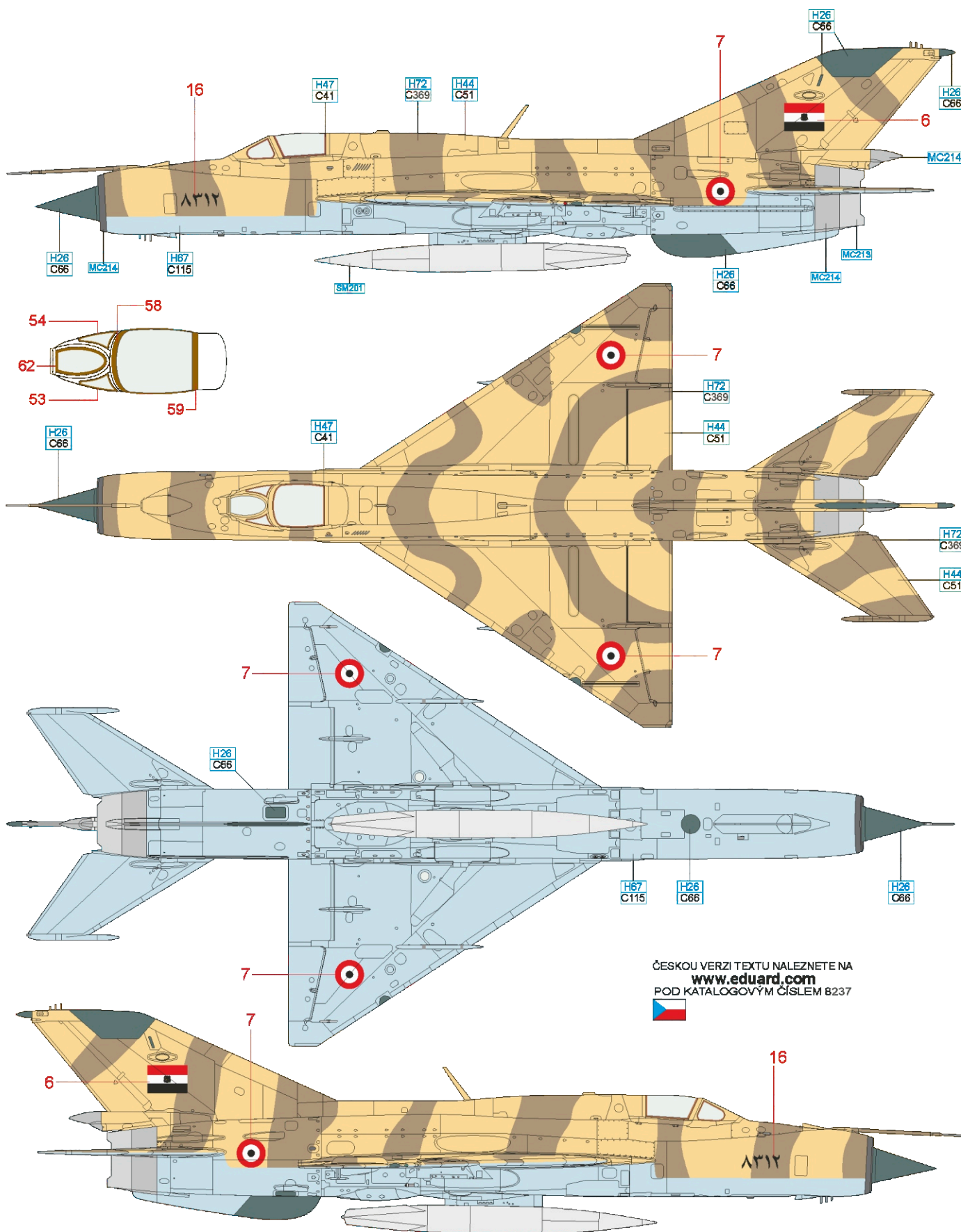
GRAY **H317**  
**C317**

**eduard**



# D Egyptian Air Force, Inshas air base, Arab Republic of Egypt, early 80's

This aircraft is one of the few MiG-21PFMs flown by Egyptian Air Force following the Six-Day War. Prior to this Arab-Israeli conflict, total of 235 various MiG-21s were delivered to Egypt but only about ten of them survived the war. The first and surprising Israeli aerial attack on Egyptian airbases on June 5, 1967, known as the Operation Moked, cost Egyptians about 90 of their MiG-21s itself. This aircraft was delivered to Egypt around 1970 and took part in the US-Egyptian military exercise Bright Star in 1982.



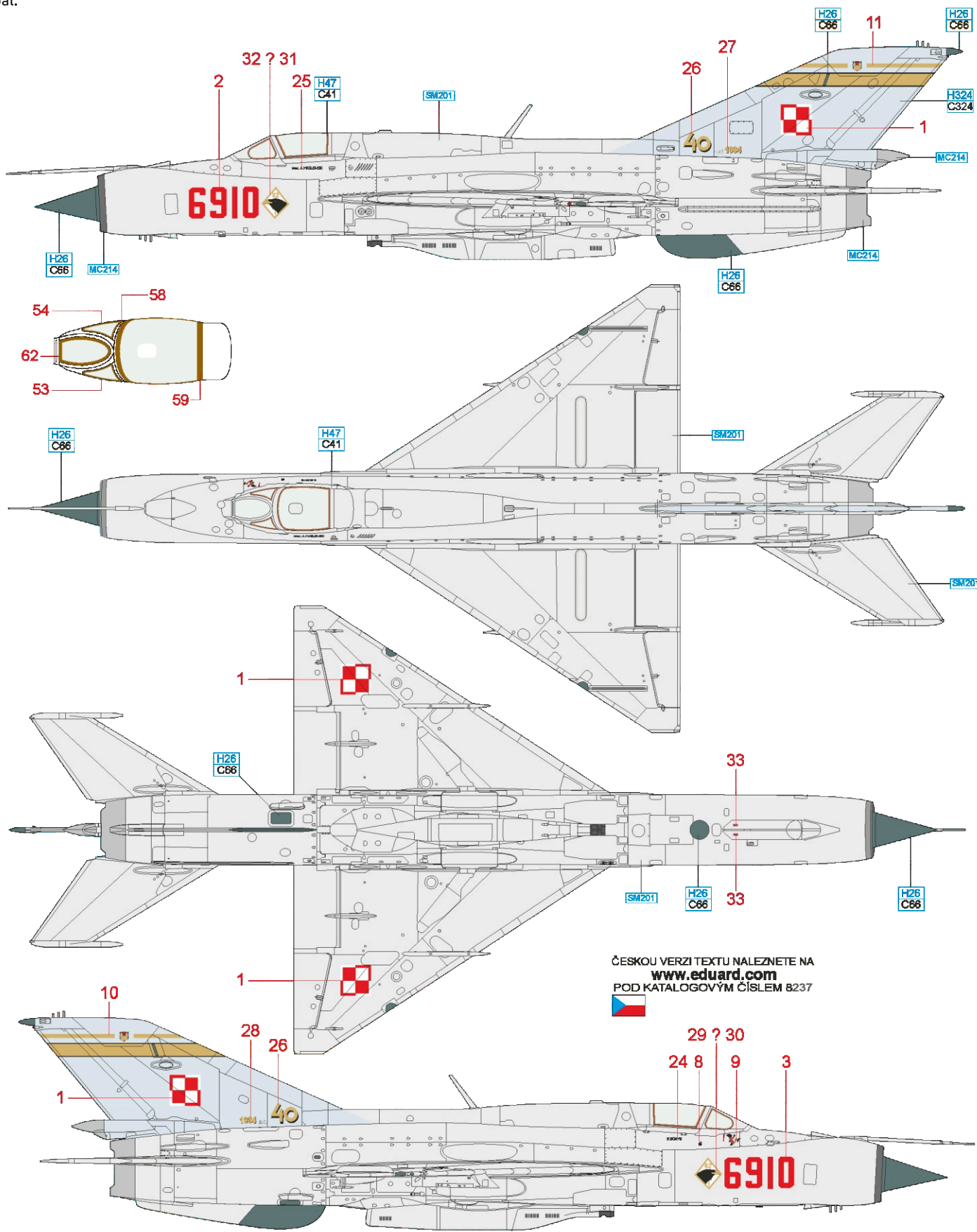
ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
 POD KATALOGOVÝM ČÍSLEM 8237



BROWN	H47 C41
STEEL	MC213
DARK IRON	MC214
LIGHT BLUE	H67 C115
SAND	H44 C51
DARK EARTH	H72 C369
GREEN	H26 C66
SILVER	SM201

# E 1 Eskadra of the 62 Pułk Lotnictwa Myśliwskiego, Polish Air Force, Poznan – Krzesiny AB, Poland, 1994

This aircraft had been delivered to Poland on April 5, 1968 and served with 34. Pułk Lotnictwa Myśliwskiego (34<sup>th</sup> Fighter Air Regiment). This profile depicts the 6910 how it looked during the service with 62. PLM. The tail marking was applied in connection with 40<sup>th</sup> anniversary of the unit establishment (1954 – 1994). In 1995 the unit designation was changed to 3. PLM and according to this the number 62 in the unit badge on the A/C nose was replaced with the new one. This PFM was armed with GP-9 gun pod and Monsun rack for two R-3S missiles. The aircraft was oversprayed with thin layer of aluminium coat.



ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
 POD KATALOGOVÝM ČÍSLEM 8237



- SILVER SM201
- LIGHT GRAY H324 C324
- DARK IRON MC214
- GREEN H26 C66
- BROWN H47 C41

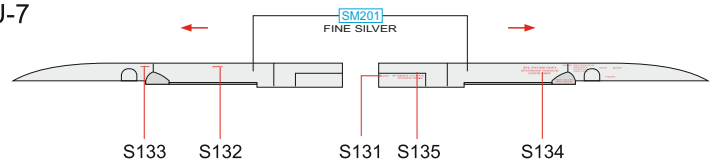
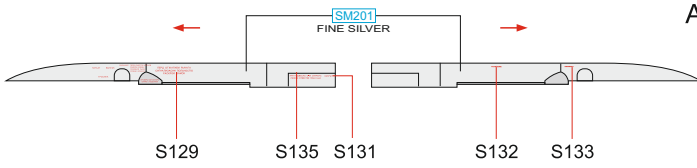
### LEFT PYLON



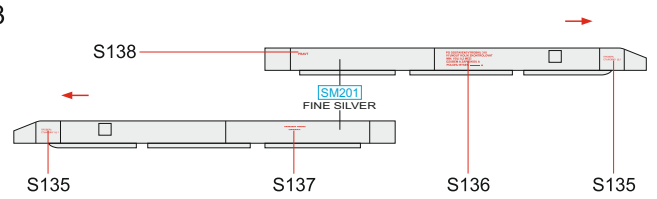
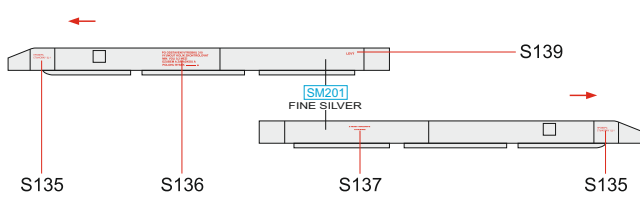
### RIGHT PYLON



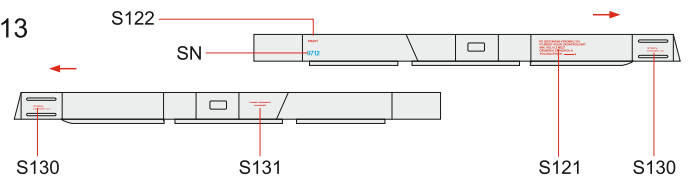
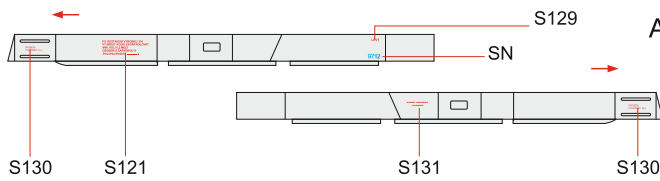
### APU-7



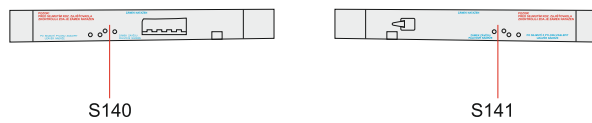
### APU-13



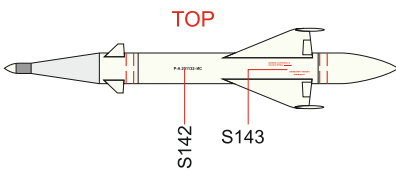
### APU-13



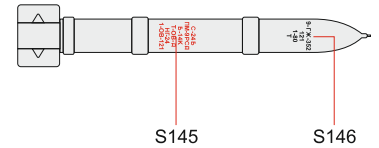
### FUSELAGE PYLON



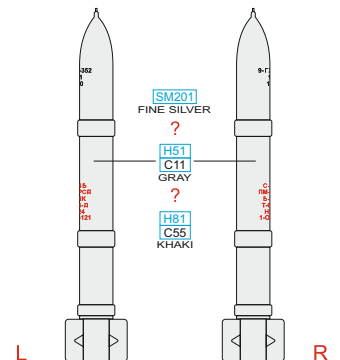
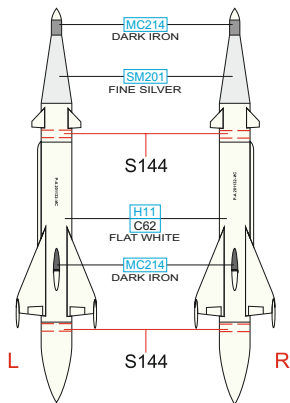
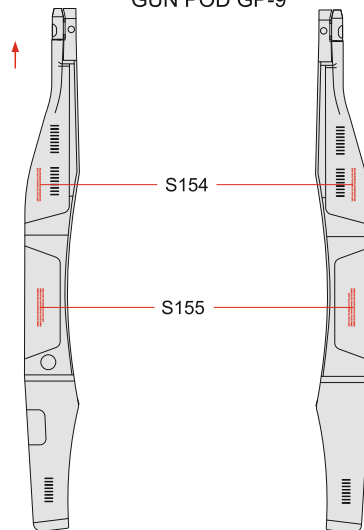
### RS-2US



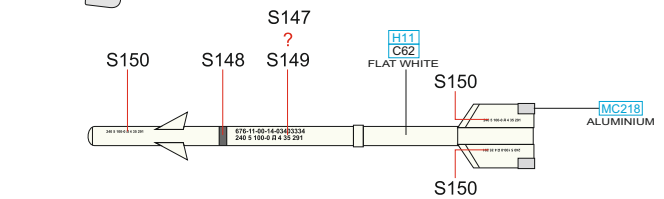
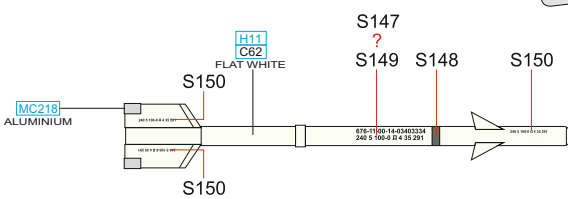
### S-24



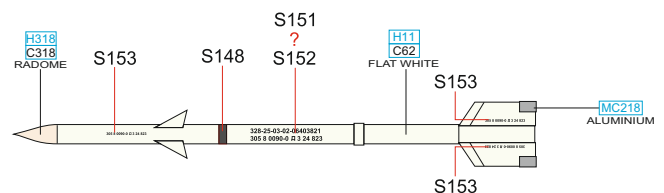
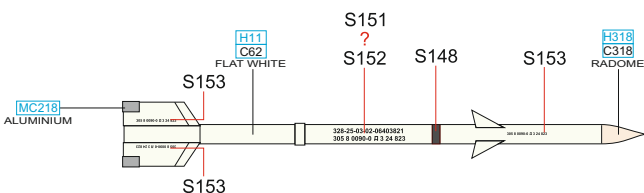
### GUN POD GP-9

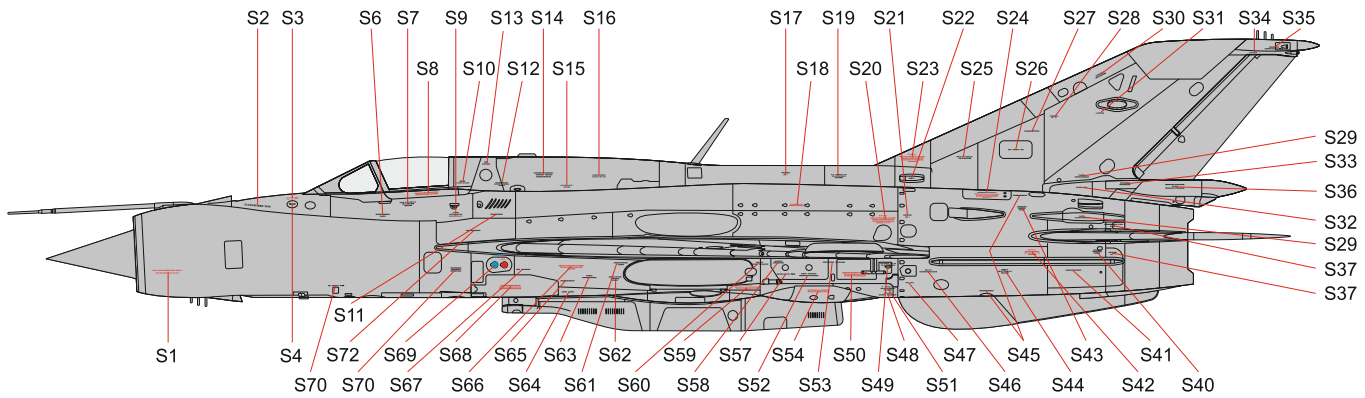


### R-3S

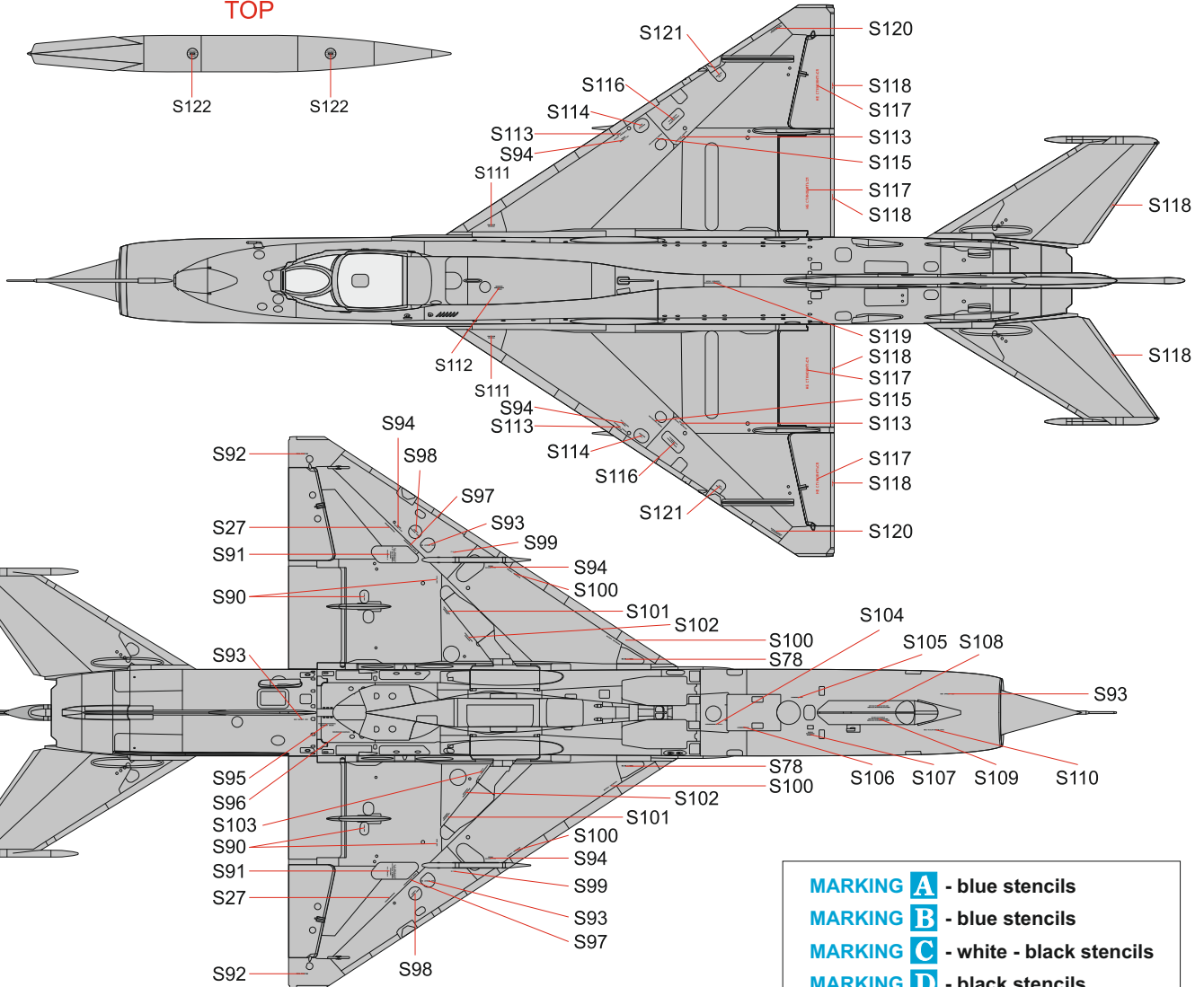
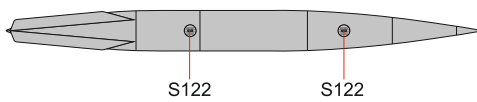


### R-3R





TOP



- MARKING **A** - blue stencils
- MARKING **B** - blue stencils
- MARKING **C** - white - black stencils
- MARKING **D** - black stencils
- MARKING **E** - black - blue stencils

