

# MiG-21bis

eduard

1/48 Scale Plastic Model Kit

**ProfiPACK**  
edition



item No. 8232

**The MiG-21 was the most-produced supersonic fighter in the world serving with more than fifty Air Forces over four continents. The continuous development lasted for nearly three decades and massive production made it the most numerous supersonic jet fighter of the world.**

The MiG-21 was one of many aircraft of the Mikoyan-Gurevich design bureau which were integrated not only into the Soviet Air Force (VVS – Voenno-vozhдушnye sily), but also into the Air Forces of all members of the Warsaw Pact and also of many allied client states. Its predecessors included such notable types as the MiG-15, MiG-17 and the supersonic MiG-19.

The roots of MiG-21 project reach back to the first half of the fifties. In 1954, the preliminary design study Ye-1 came to its end and was quickly replaced by the heavily reworked Ye-2 prototype. Both had a swept wing and 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 with the MiG-21 designation was the first successful Soviet design integrating fighter and interceptor characteristics. It was also quite light Mach 2 aircraft, although the long-lasting development was adding 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.

## Cold War warrior

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 at the beginning of the sixties. Subsequent versions included the PF, FL, PFM and R with production of these peaking at the end of the sixties. The production of third generation started in 1968 and included the most advanced versions of MiG-21 like the M, SM, MF, SMT or bis among others. Simultaneously, two-seat training versions were also produced and designated as MiG-21U, UM and US.

Production of the MiG-21 ended in 1985. The new aircraft came off Soviet production lines in Moscow, Gorky and Tbilisi, the MiG-21F-13 was also built under the license in Czechoslovakia and the MiG-21FL, M and bis were built in India by Hindustan Aeronautics Ltd. The Soviet Union produced 10,645 examples of all versions, 194 were built in Czechoslovakia and 657 in India. That counts 11,496 aircraft produced. NATO assigned it the reporting name "Fishbed", while the Soviet pilots called it "Balalaika" due to the shape resembling it with the popular Russian musical instrument.

## Aces from Asia, Middle East or Africa

Outside of the Soviet Union, the type flew with a long list of nations on four continents (Europe, Asia, Africa and South America) and participated in many conflicts and wars. The most remarkable combat use includes the Vietnam war, the Indo-Pakistan wars, the

Cuban participation in Angola and in the Arab world's attempts to eliminate Israel. It is no wonder there were many pilots achieving their ace status flying one or more variants of MiG-21.

Thanks to the high volume of use and intensive combat actions, the Vietnamese pilots are topping the list of aces of MiG-21 with Nguyen Van Coc with 9 kills as the most successful among them followed by three eight-victory aces Mai Van Cuong, Nguyen Hong Nhi and Pham Thanh Ngan. From the other nations the Syrian pilots Bassam Hamshun and Majid Zugbi both achieved seven kills flying MiG-21MF, while Adeeb Al-Jarf had the same score with MiG-21FL. Egyptian pilots Ali Vajai, Sami Marei and Sami Marei scored five times.

In the interceptor role the MiG-21 served with the Soviet Union and other nations of the Warsaw Pact into the eighties when it began to be replaced by the MiG-23 in seventies and MiG-29 in eighties.

## This kit: MiG-21bis

The MiG-21bis had designation "Izdelye 75" in factory documentation. As opposed to the MF and SMT versions, it was intended to be a fighter with ground attack capability as only the secondary role. It was powered by a Tumanskiy R-25-300 engine which was more powerful than unit used with MiG-21SM and it also offered better economy. The maximum thrust rose from 6,490 kp of the R-13-300 to 9,900 kp of the R-25-300.

Because of the change of the engine, the diameter of the frontal air inlet had to be enlarged from 870 mm to 900 mm. The regulation cone was taken over from SM version, but the radar inside was changed from the RP-22SM unit to the RP-22M (Jay Bird) one. It was capable to follow the air targets also when they were detected against the ground surface background. The bigger No. 7 fuel tank was installed (600 l instead of 510 l) in the fuselage and the change necessitated bigger, more spacious fuselage ridge. But it was not as massive as with the MiG-21SMT version, where the huge 900 l tank affected the general performance of the aircraft negatively. The BIS solution was a compromise between the endurance and the performance.

The MiG-21bis was armed with a twin barreled GS-23-2L 23 mm cannon with 200 rounds of ammo. Hardpoints could be loaded with R-13M, R-55, R-60 and R-60M missiles, UB-16-57 or UB32A rocket pods, S-24 unguided rockets, bombs up to 500 kg caliber and also ZB-360 napalm bombs.

The aircraft was delivered to nations of the former Warsaw Pact and the Third World either as the model "Izdelye 75A" with the Lazur ground control intercept system, or as the "Izdelye 75B" with the Polyot OI ILS (Instrument Landing System). The former carried the NATO code "Fishbed N", and the latter "Fishbed K". Both versions served as "Izdelye 75" with Soviet VVS and PVO units.

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 lepidla 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. SYMBOLY

\* INSTRUKTION SINNBILDEN

\* SYMBOLES

\* 記号の説明

OPTIONAL  
VOLBABEND  
OHNOUTSAND  
BROUSITOPEN HOLE  
VYVRTAT OTVORSYMETRICAL ASSEMBLY  
SYMETRICKÁ MONTÁŽREMOVE  
ODRÍZNOUTREVERSE SIDE  
OTOČITAPPLY EDUARD MASK  
AND PAINT  
POUŽÍT EDUARD MASK  
NABARVIT

PARTS



DÍLY



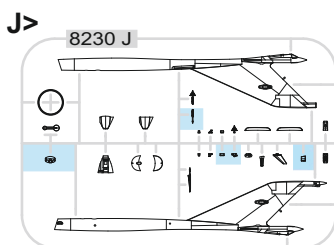
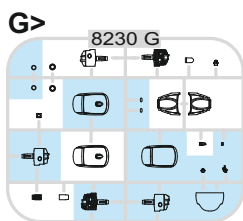
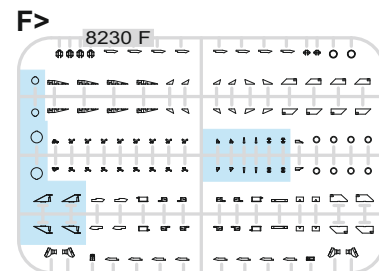
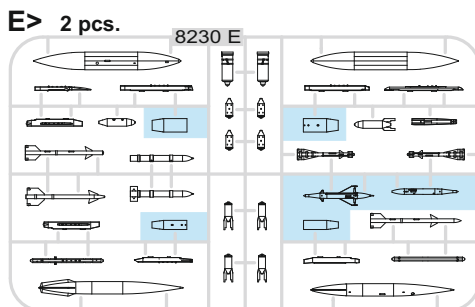
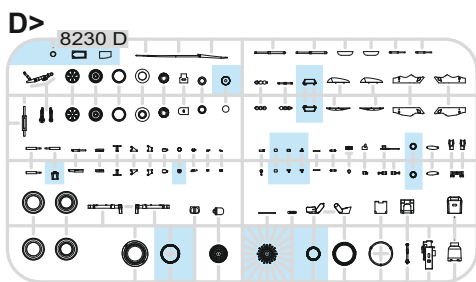
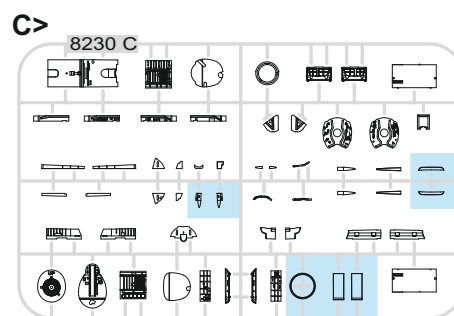
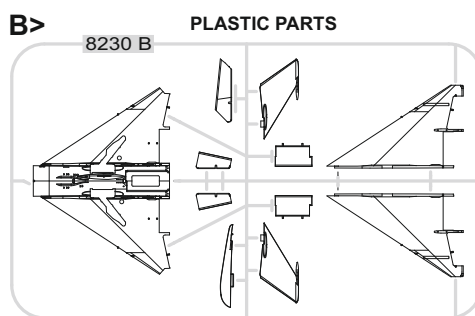
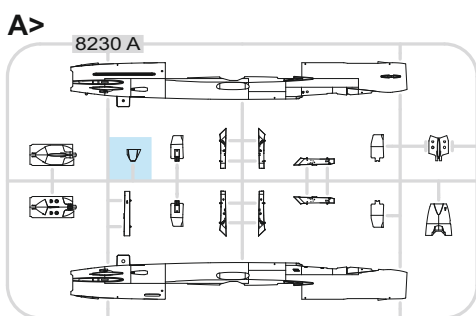
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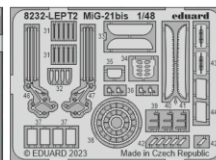
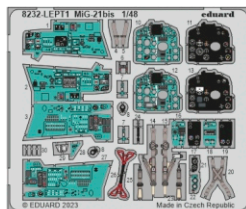
PIÈCES



部品



PE - PHOTO ETCHED DETAIL PARTS

eduard  
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
H3	C3	RED
H4	C4	YELLOW
H5	C5	BLUE
H7	C7	BROWN
H8	C8	SILVER
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H14	C59	ORANGE
H26	C66	BRIGHT GREEN
H37	C43	WOOD BROWN
H47	C41	RED BROWN
H51	C11	LIGHT GULL GRAY
H53	C13	NEUTRAL GRAY
H67	C115	LIGHT BLUE
H70	C60	RLM02 GRAY
H77	C137	TIRE BLACK
H81	C55	KHAKI
H82	C31	DARK GRAY
H84	C42	MAHOGANY
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN

GSI Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H308	C308	GRAY
H312	C312	GREEN
H318	C318	RADOME
H323	C323	LIGHT BLUE
H330	C361	DARK GREEN
H332	C332	GRAYISH BLUE
H333	C333	EXTRA DARK SEAGRAY
H340	C340	FIELD GREEN
H422	C122	RLM82 LIGHT GREEN
	C74	AIR SUPERIORITY BLUE
	C129	LIGHT GREEN
	C131	RED BROWN
	C136	RUSSIAN GREEN
	C391	INTERIOR TURQUISE GREEN
	C511	GREEN
Mr.METAL COLOR		
	MC213	STEEL
	MC214	DARK IRON
	MC218	ALUMINIUM
Mr.COLOR SUPER METALLIC		
	SM201	SUPER FINE SILVER
	SM206	CHROME SILVER

H70 - MARKINGS E, F

C60 RLM 02 GRAY

C74 - MARKING C

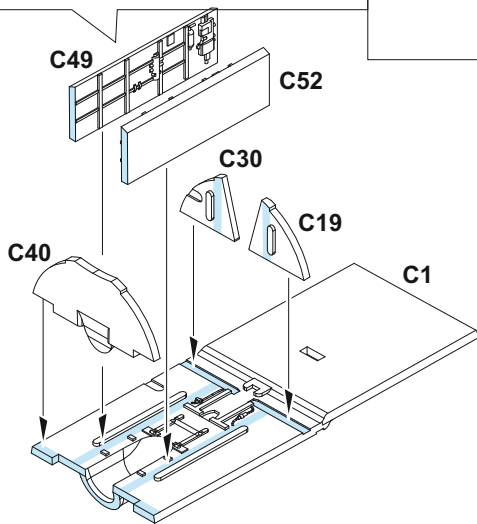
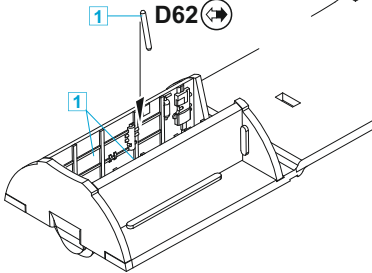
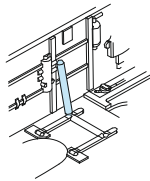
C308 SUPERIORITY BLUE

H308 - MARKINGS A, D

C308 GRAY

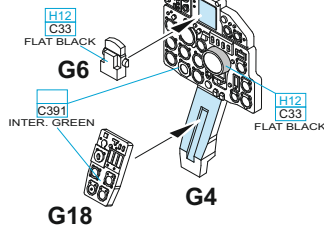
85% H4 C4 YELLOW

+ 15% H8 C8 SILVER



OPTIONAL: decal K1, K5 ? decal K2, K6

decal K2, K6 - MARKING E ONLY



?

PE11 ? PE13

PE10 ? PE12

G6

PE6

H12 C33 FLAT BLACK

PE17 ?

PE19 ?

PE16 ?

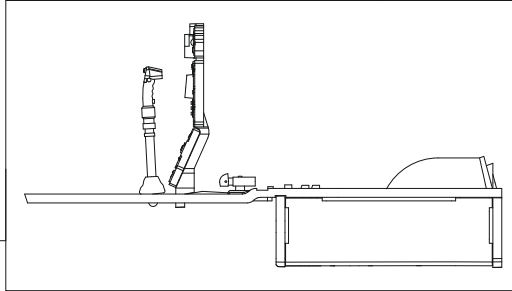
PE18 ?

PE12, 13, 18, 19 - MARKING E ONLY

G3

G9

C391 INTER. GREEN



A

D95 H12 C33 FLAT BLACK

D20 - OPEN CANOPY ONLY

D20 ?

PE32

PE32

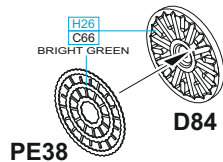
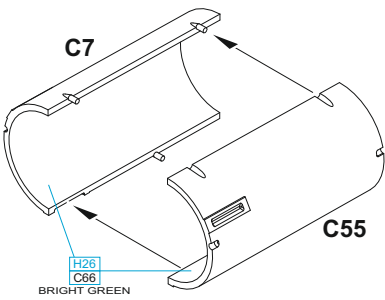
H47 C41 RED BROWN

H8 C8 SILVER

D75

PE32

B



H26 C66 BRIGHT GREEN

C4

D38 H8 C8 SILVER

D91 MC213 STAINLESS

D38 H8 C8 SILVER

MC214 DARK IRON

D93

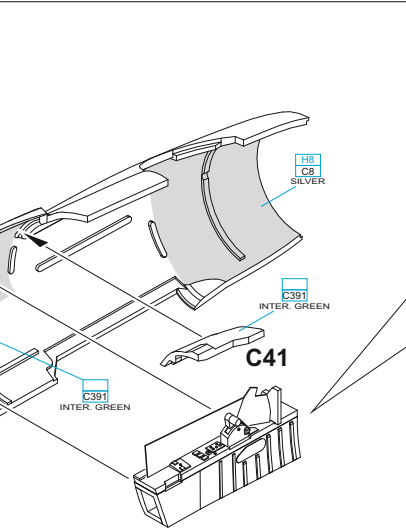
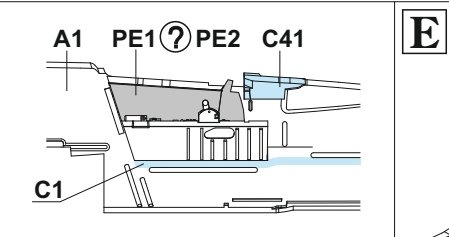
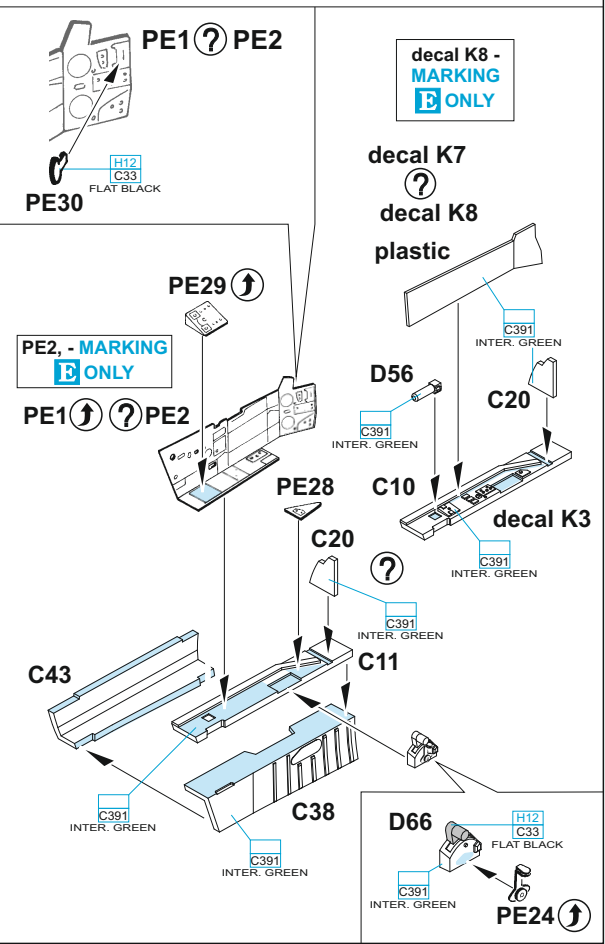
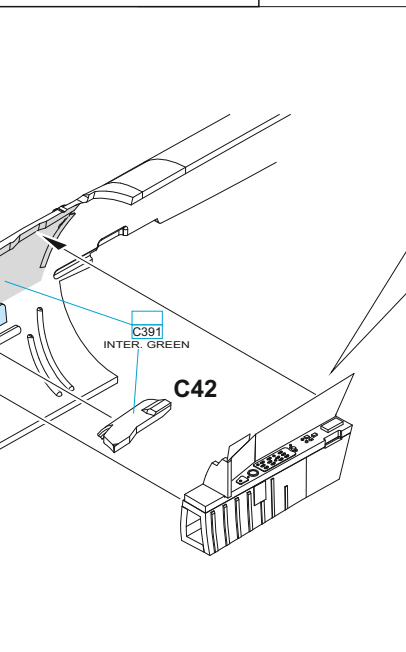
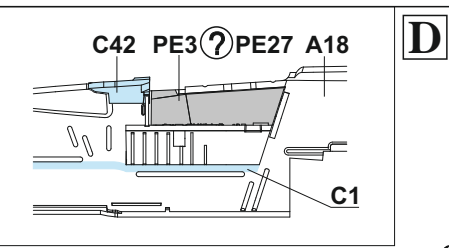
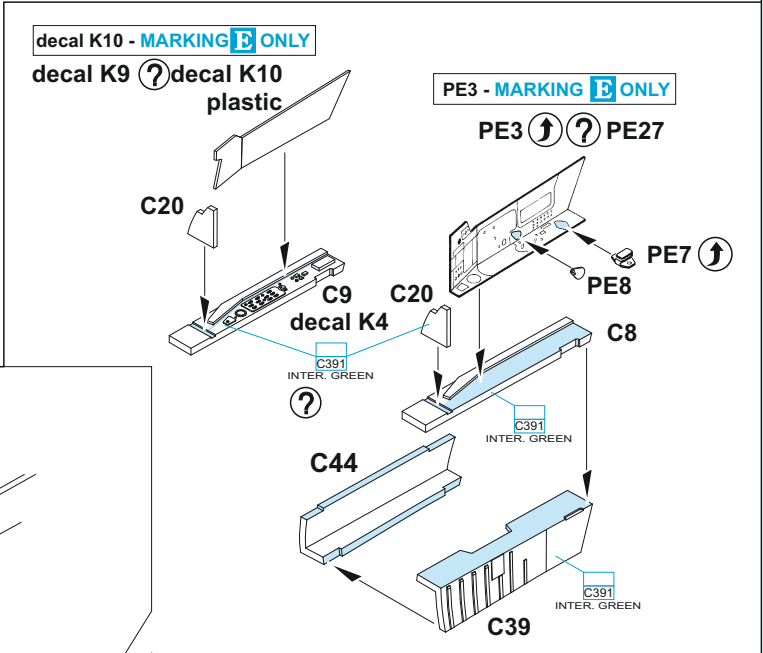
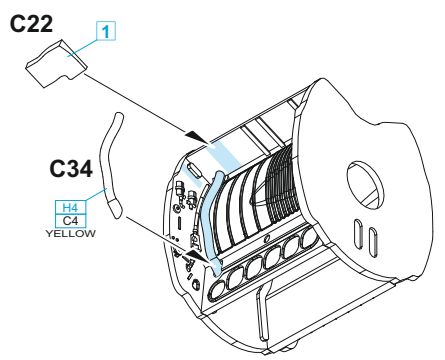
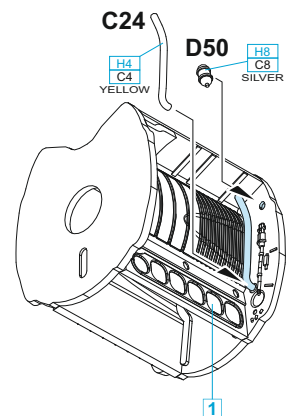
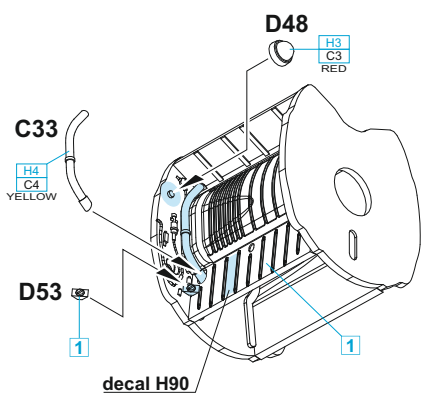
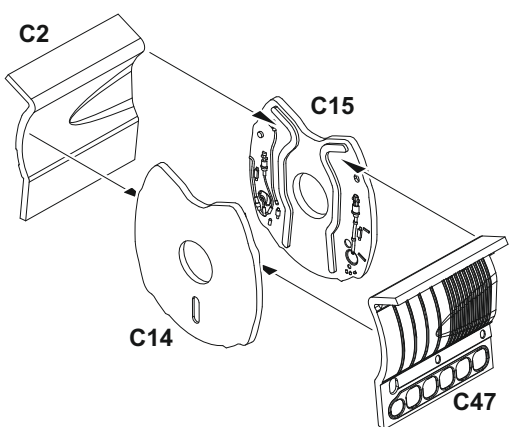
D38 H8 C8 SILVER

D24

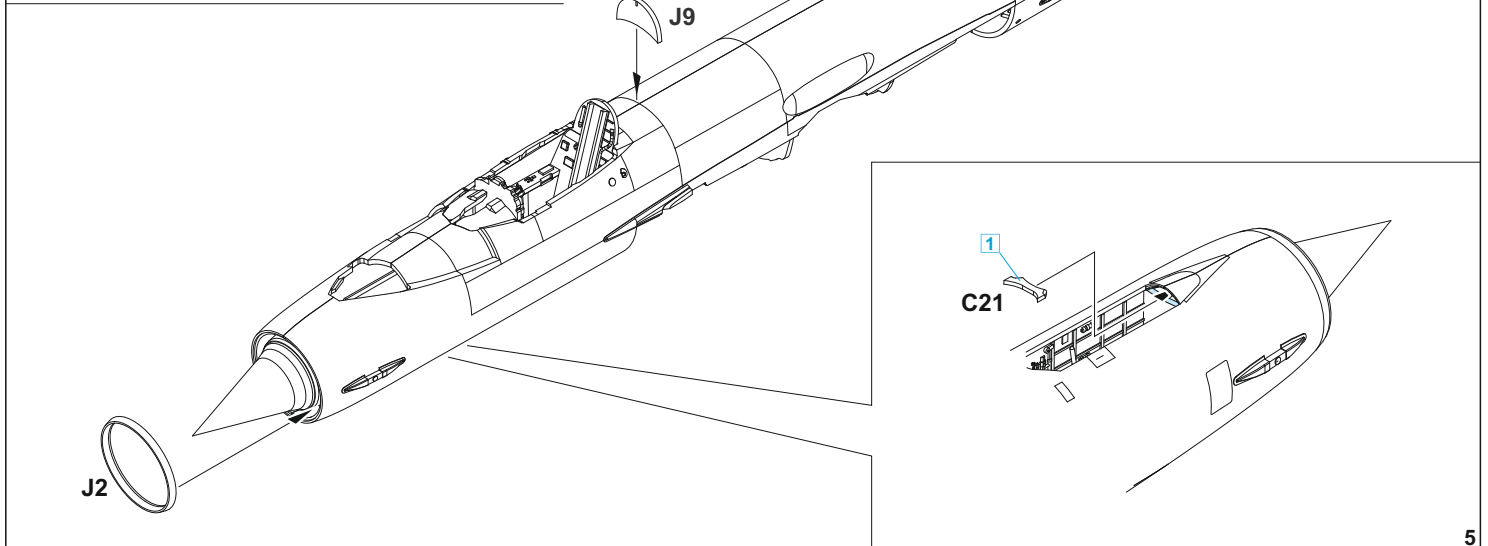
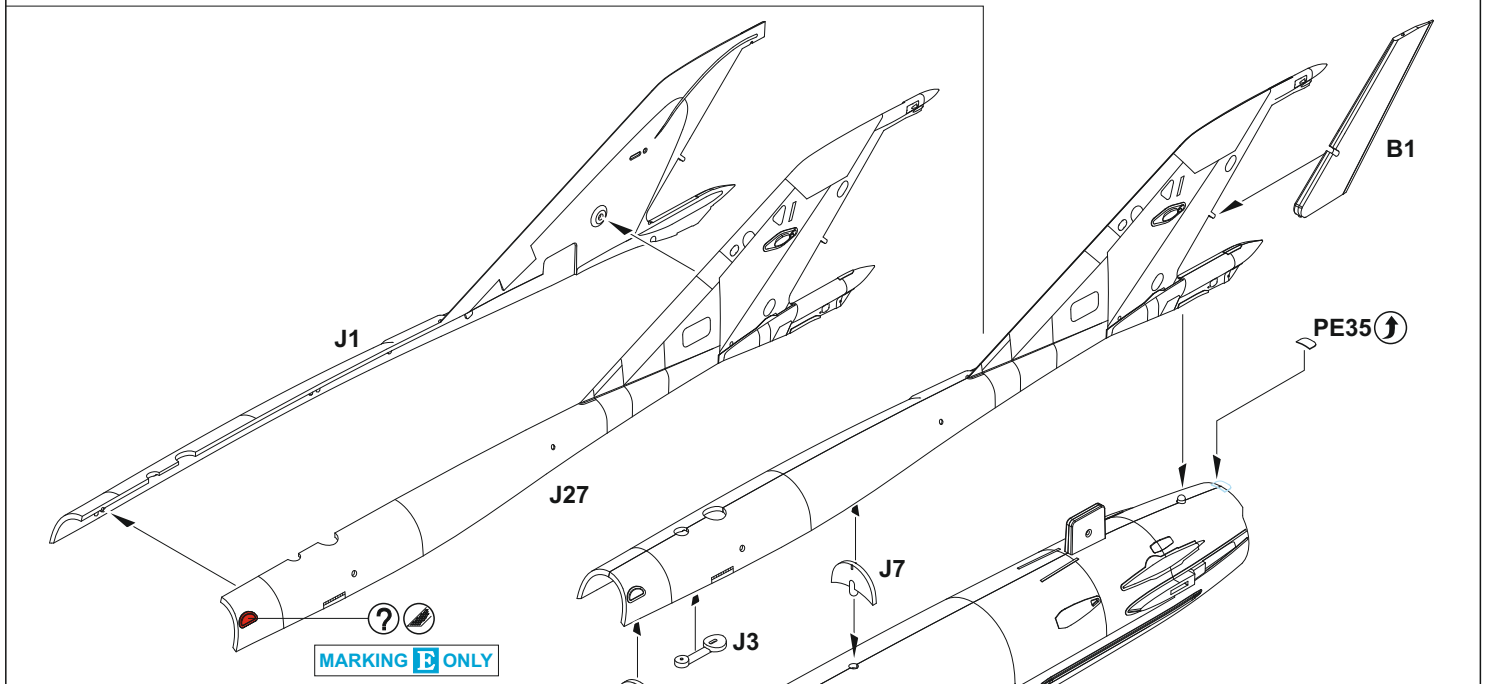
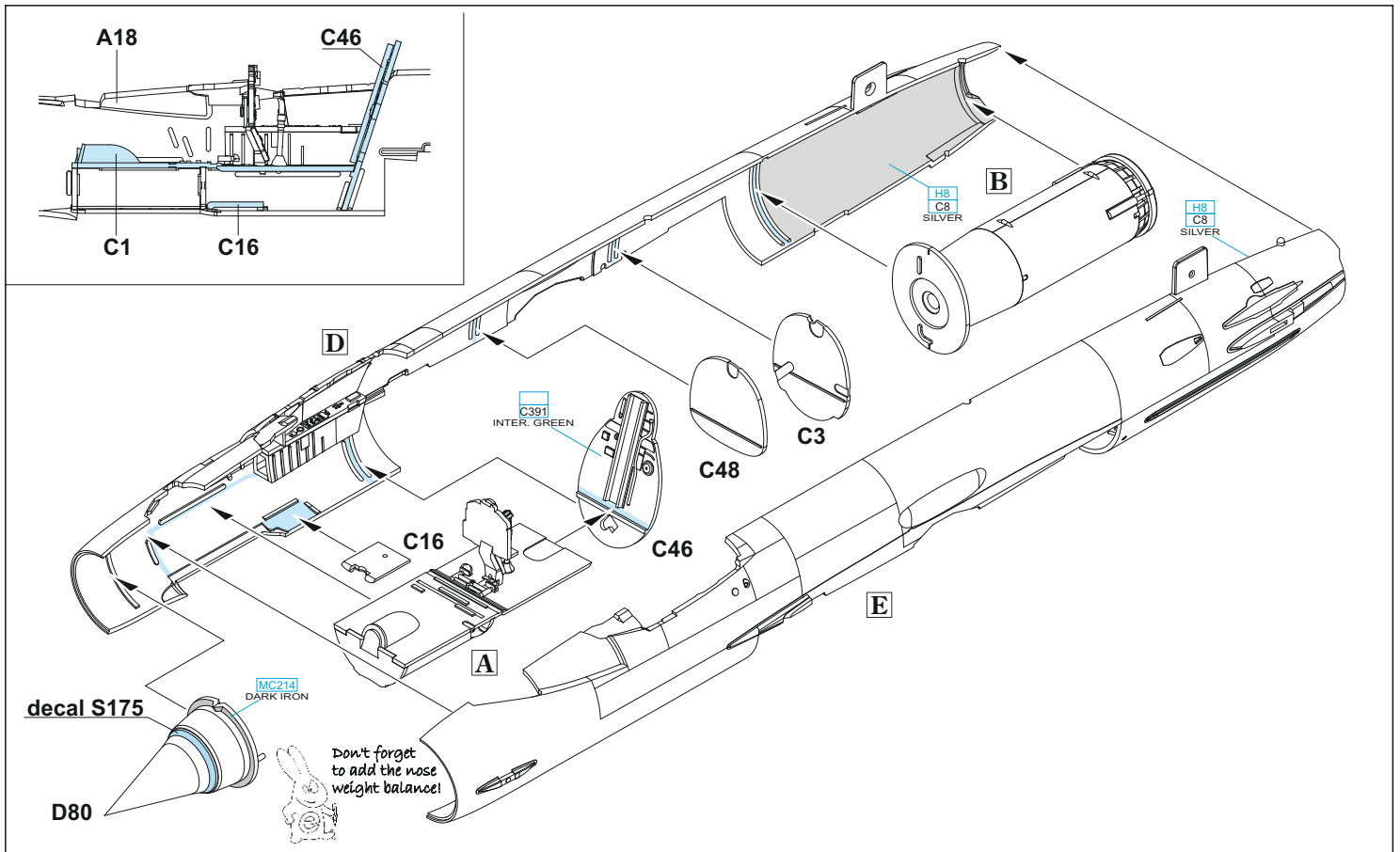
MC213 STAINLESS

C45

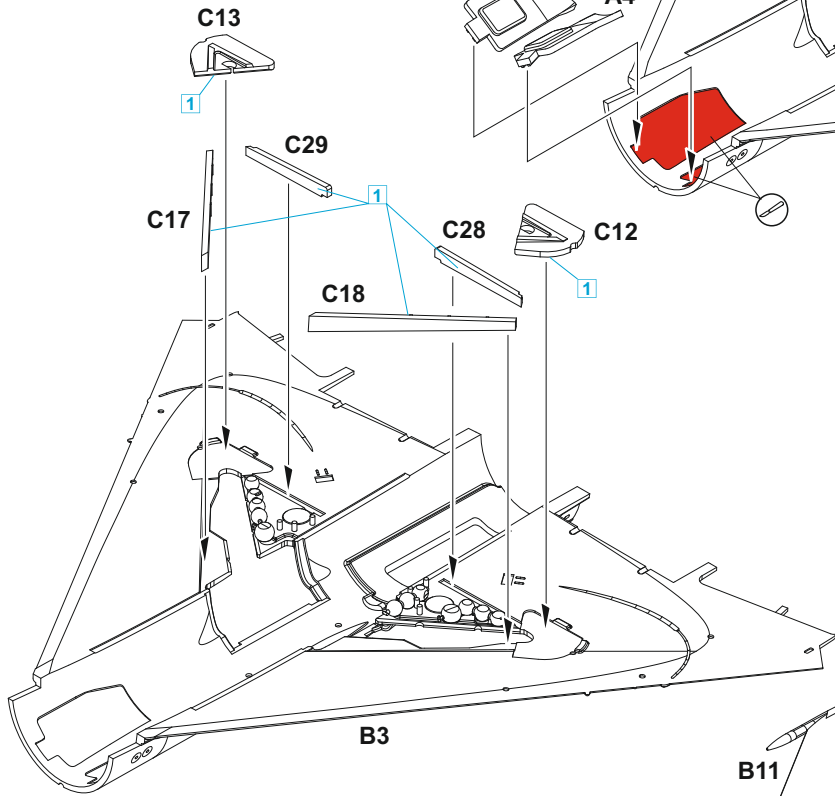
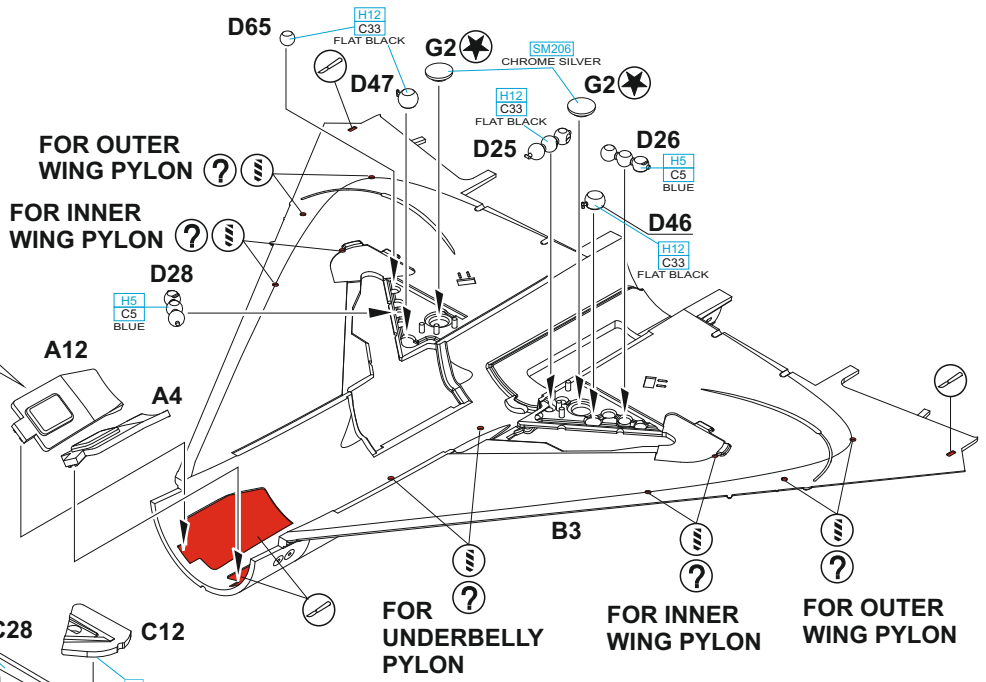
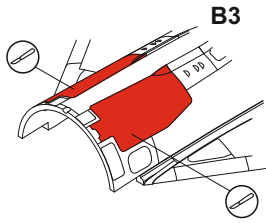
C



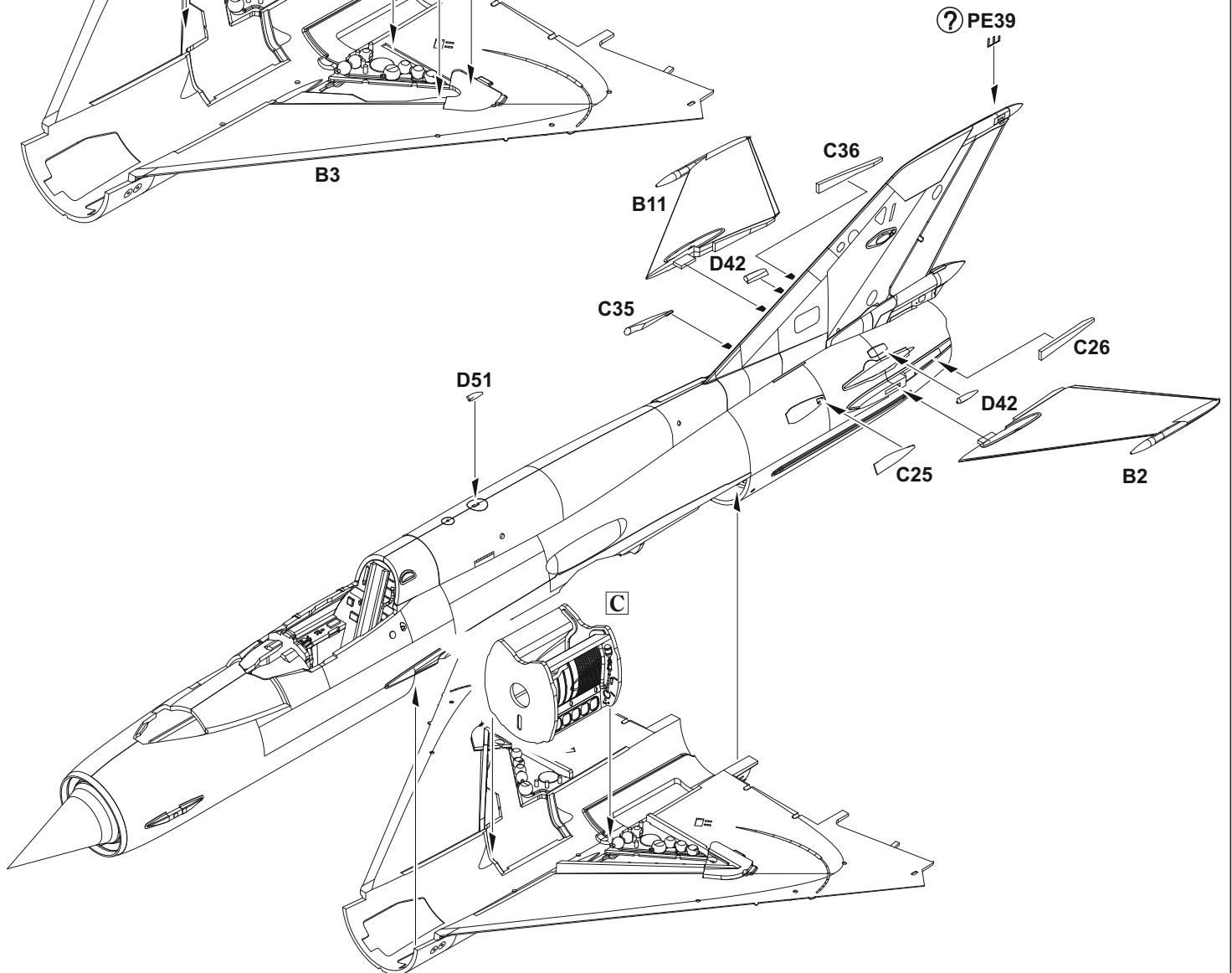




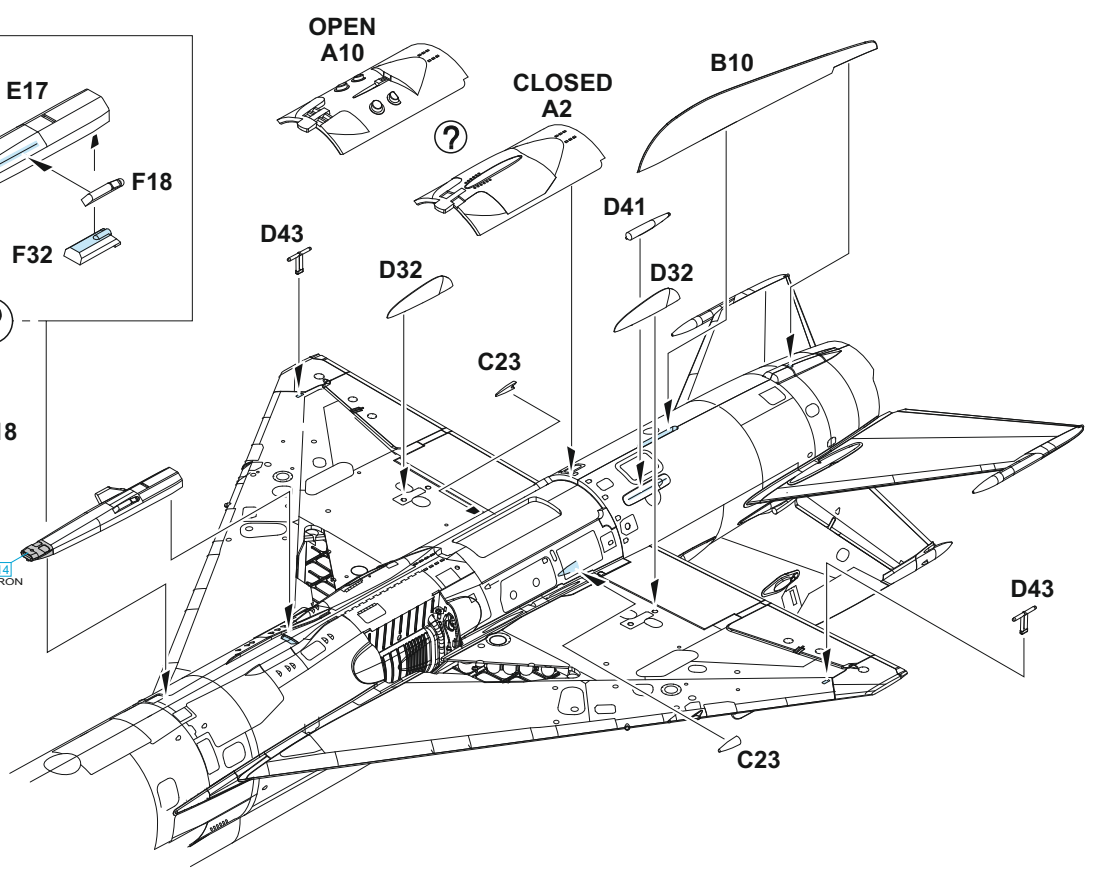
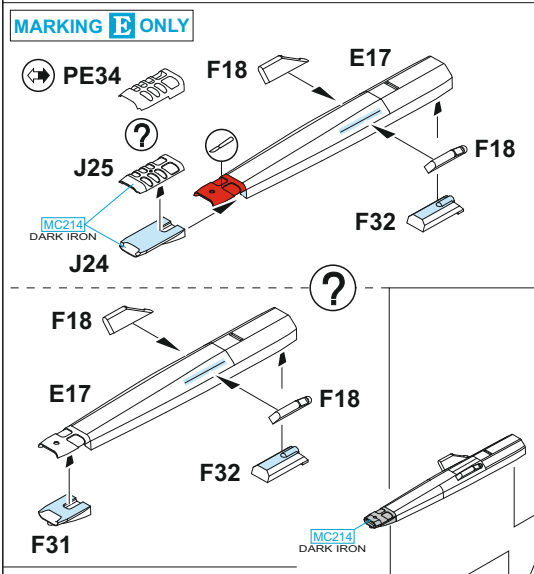
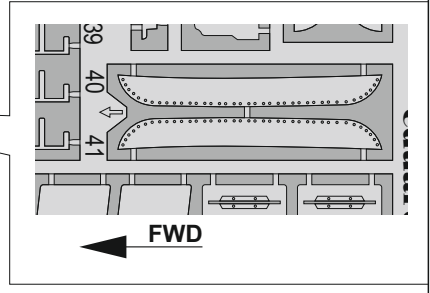
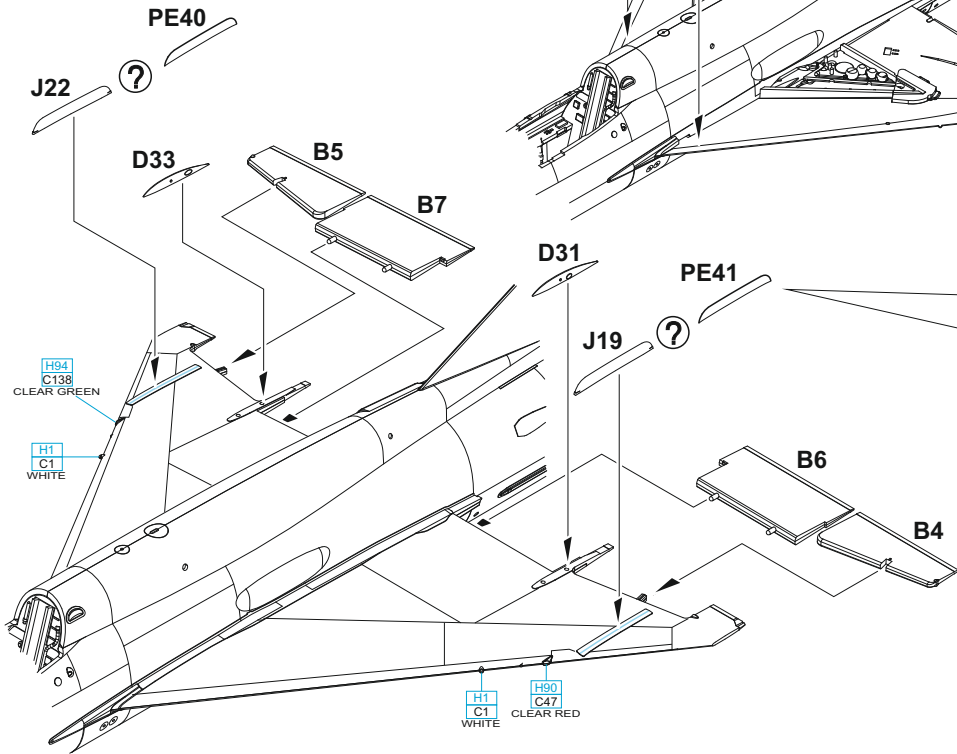
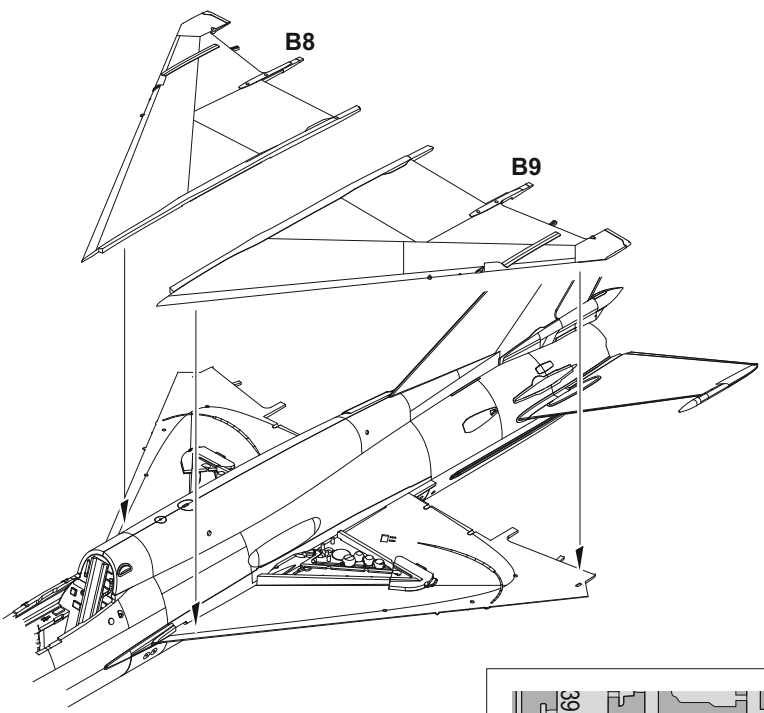
FOR OPEN AIR BRAKES ONLY

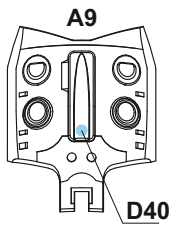


MARKINGS B, C, F ONLY

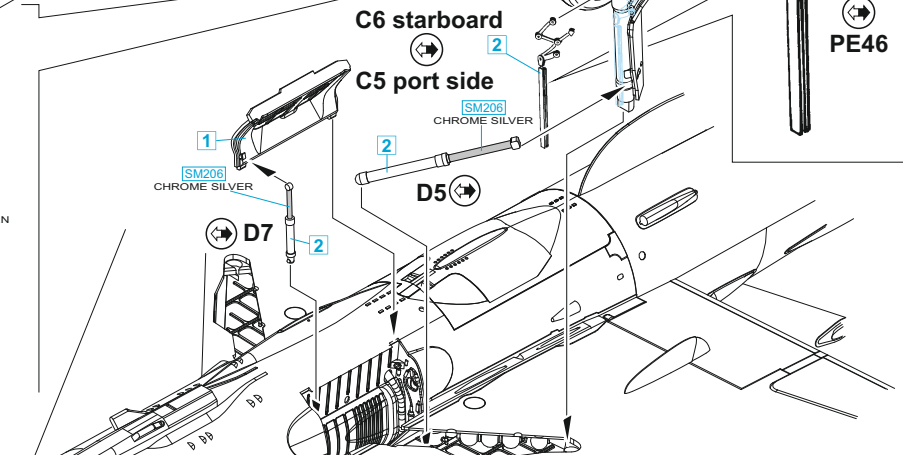
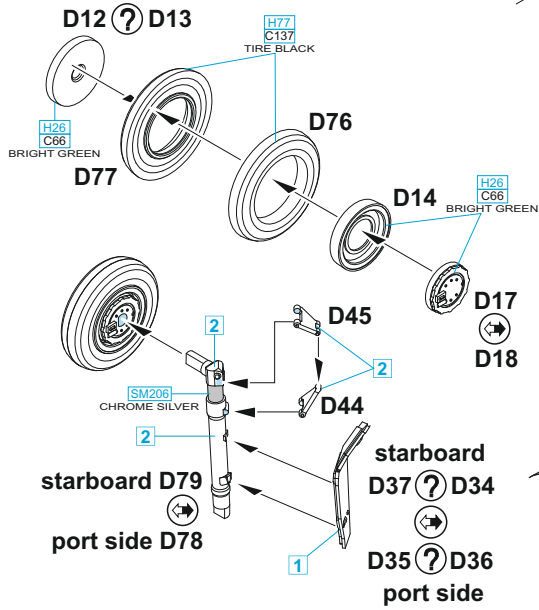
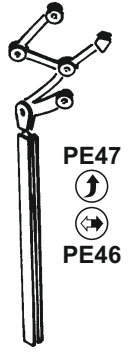
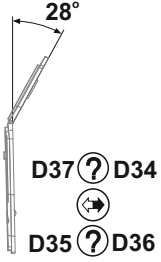
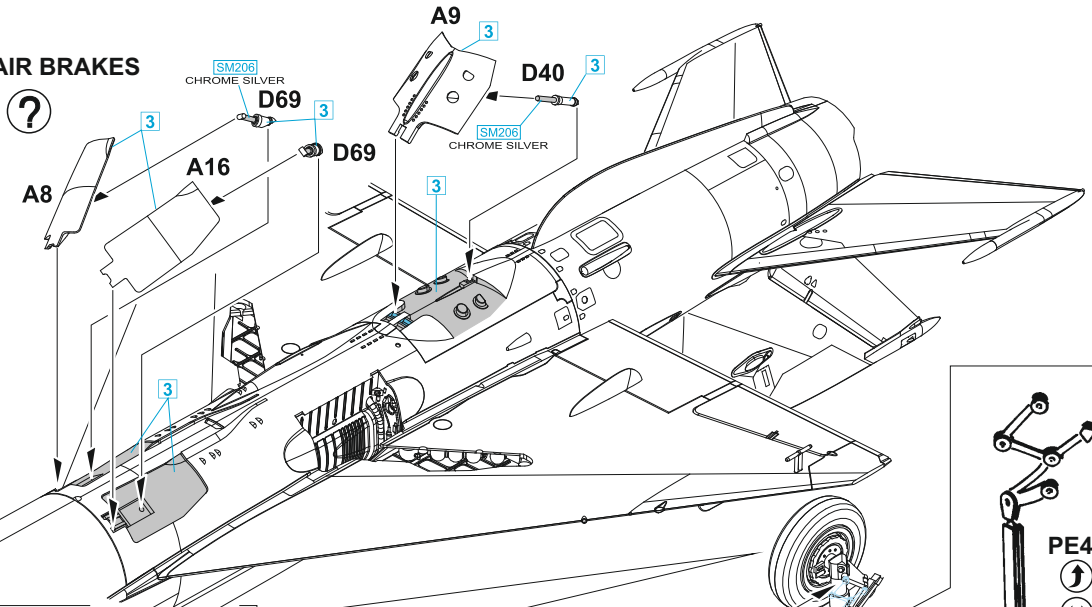


- H51 - MARKINGS **B; D; F**  
C11 LIGHT GULL GRAY  
**2** = C74 - MARKINGS **C; E**  
 SUPERIORITY BLUE  
H308 - MARKING **A**  
C308 GRAY
- 
- H51 - MARKING **B**  
 LIGHT GULL GRAY  
C74 - MARKING **C**  
 SUPERIORITY BLUE  
**3** = H308 - MARKINGS **A; E; D**  
C308 GRAY  
H323 - MARKING **F**  
 LIGHT BLUE

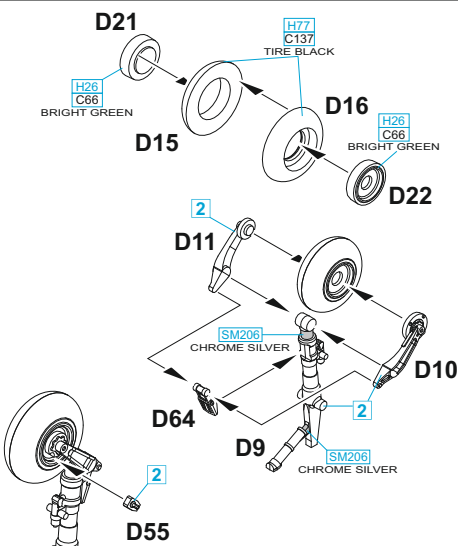
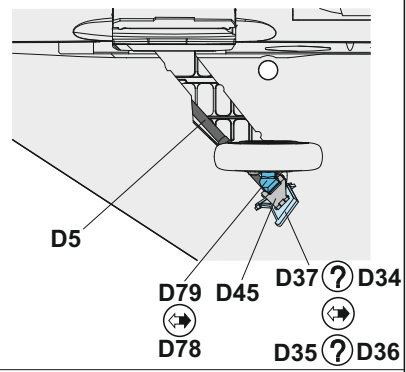
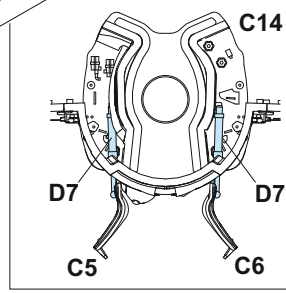




**OPEN AIR BRAKES**



D35, D37 - MARKINGS **A, B, C, D, F**  
D34, D36 - MARKING **E**



J13 - MARKING **F** ONLY

PE39 - MARKINGS **B, C, F**  
PE39 - MARKINGS **A, D**

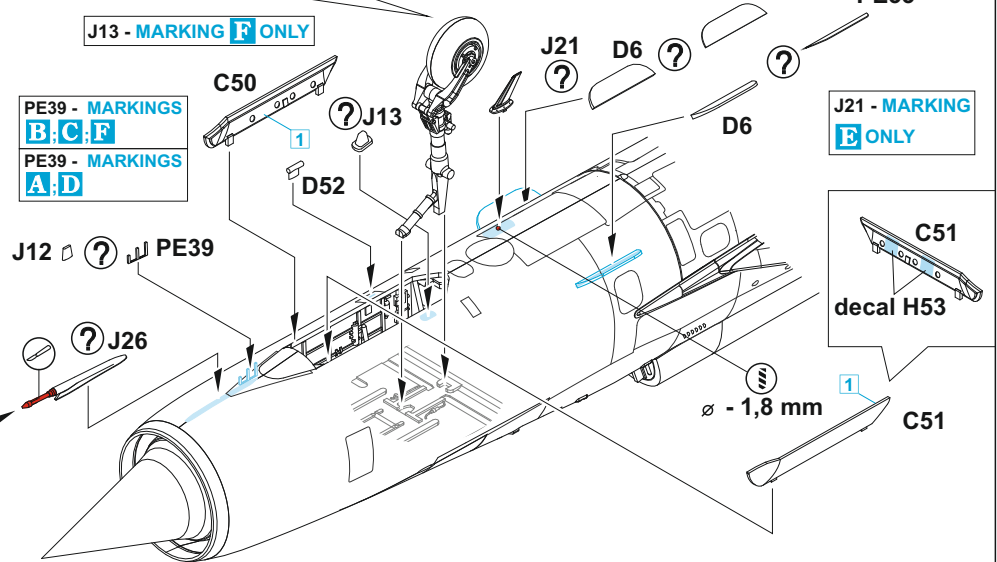
J21 - MARKING **E** ONLY

J12 ? PE39

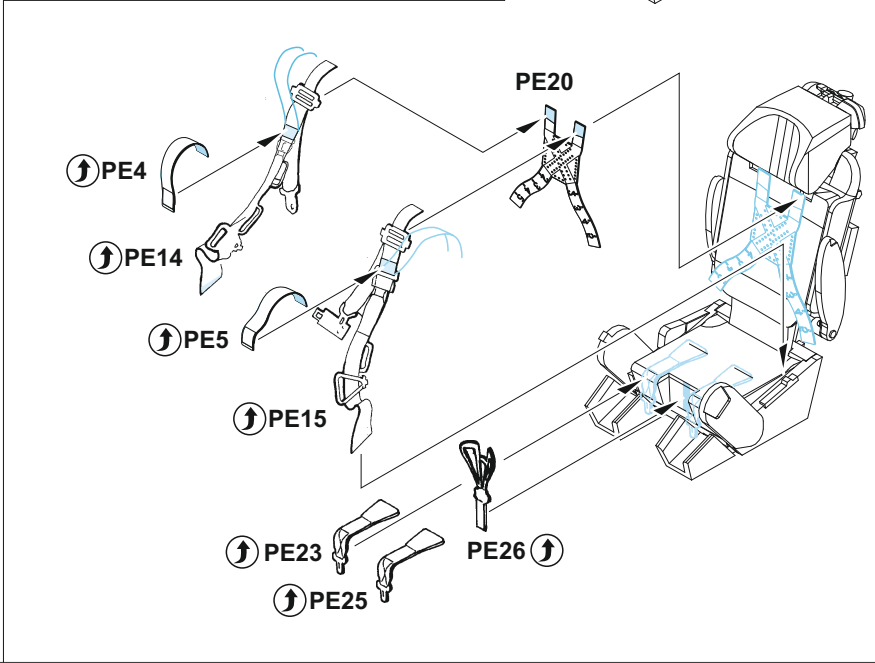
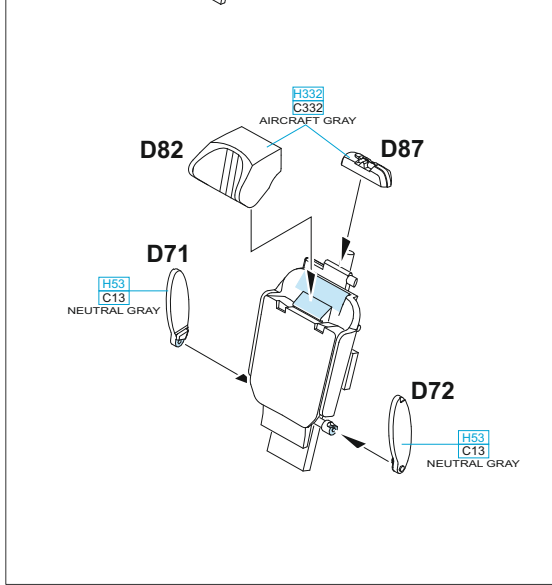
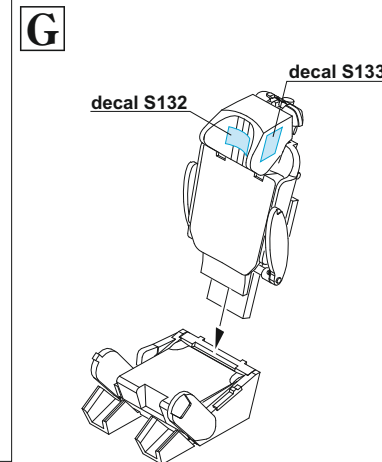
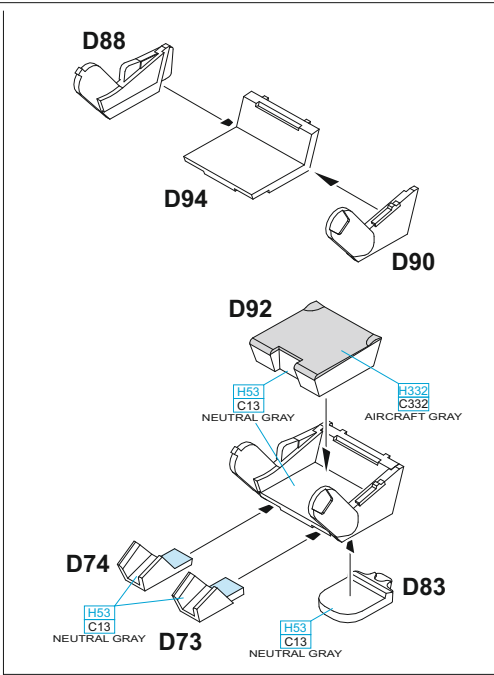
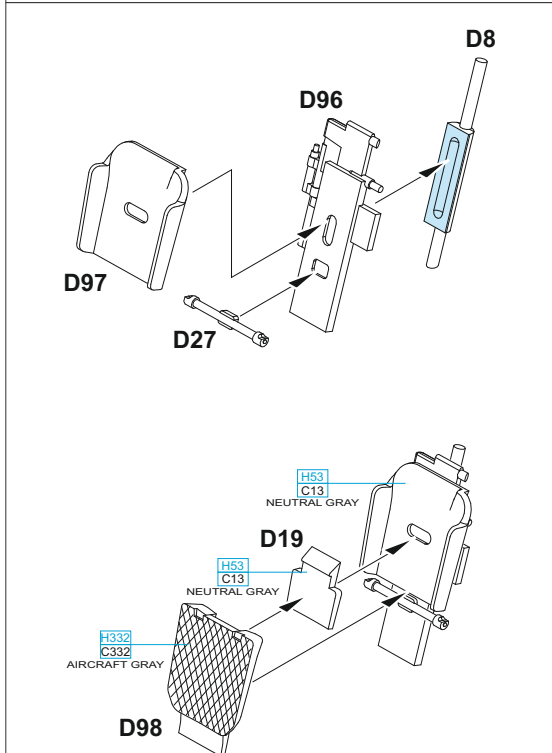
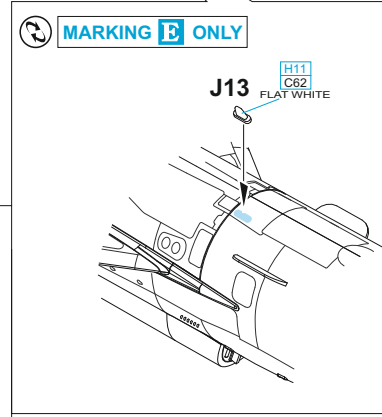
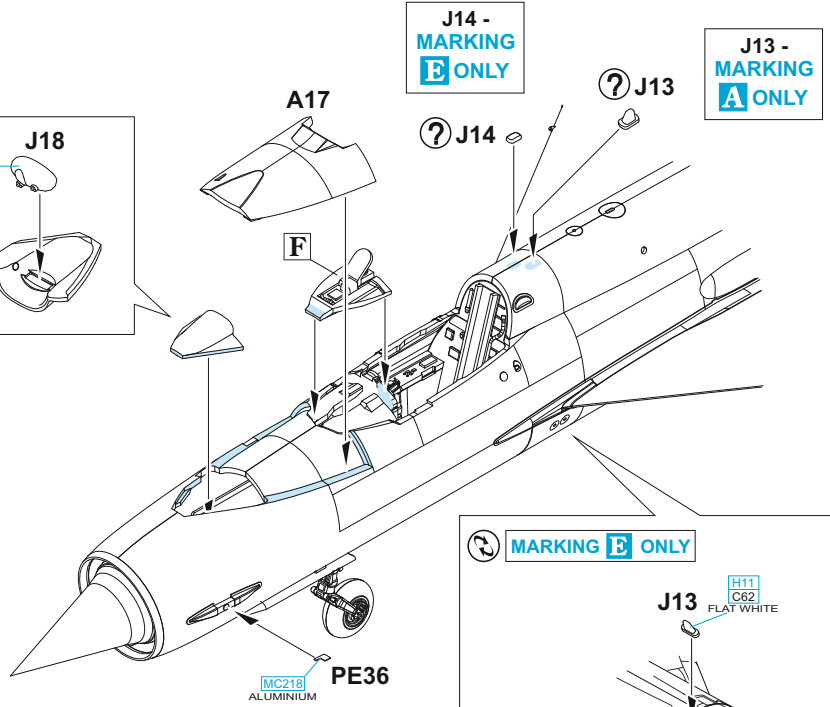
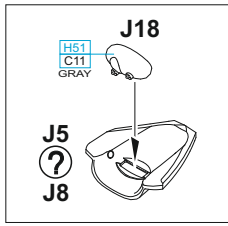
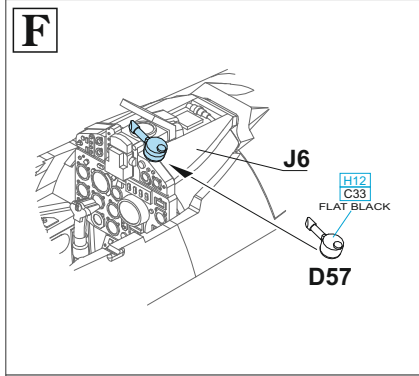
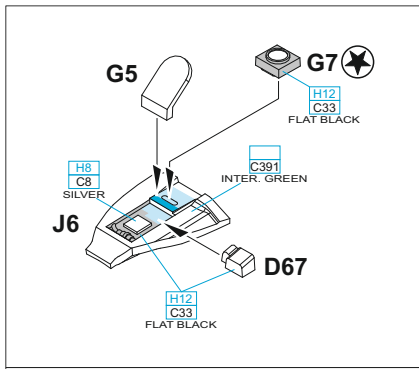
decal 55 - MARKING **A** ONLY

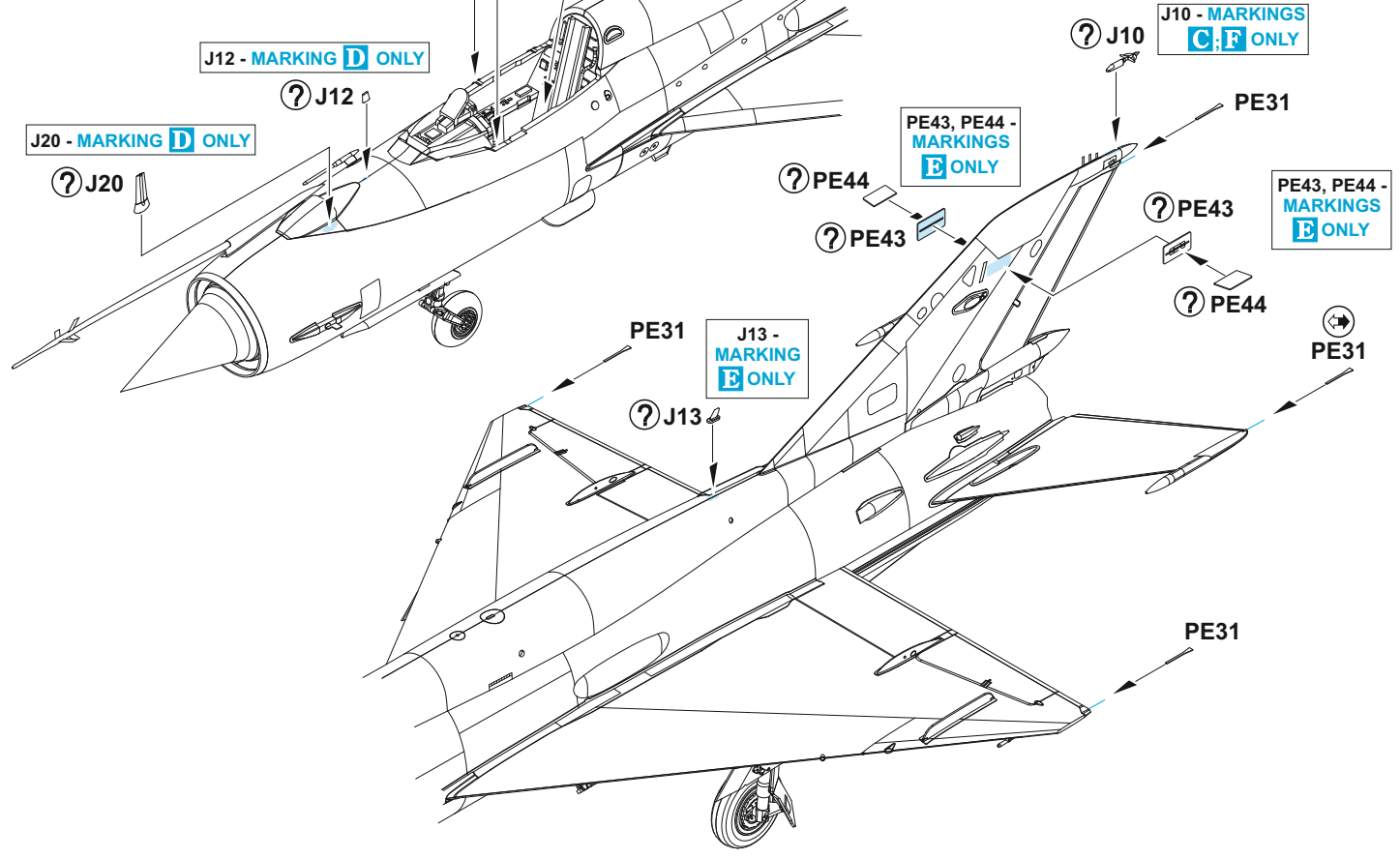
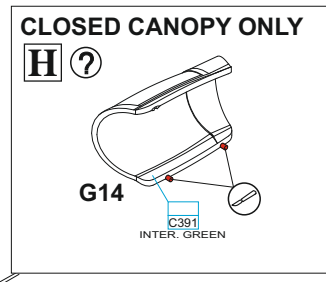
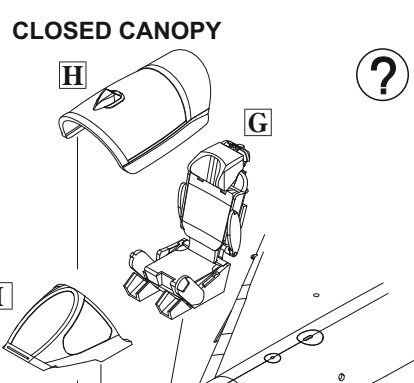
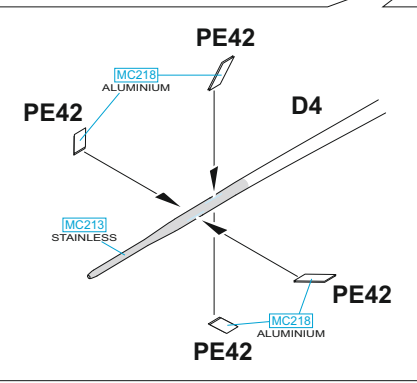
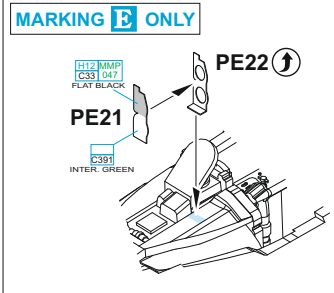
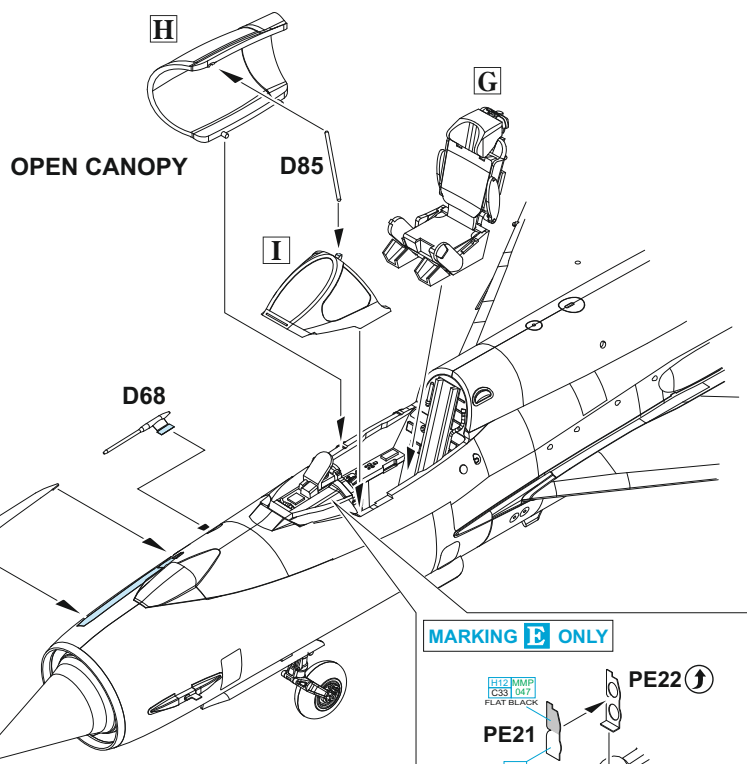
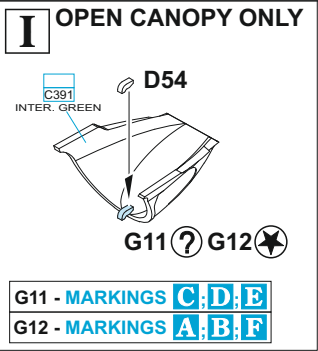
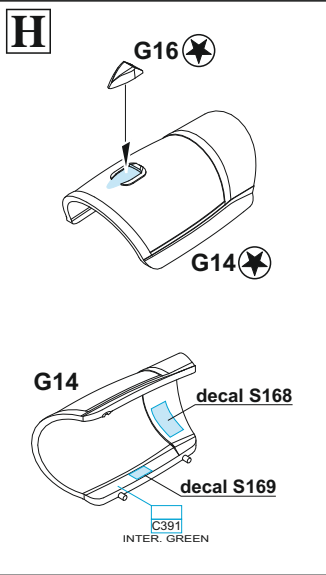
J16, J26 - MARKINGS **C, F** ONLY  
J16 ?

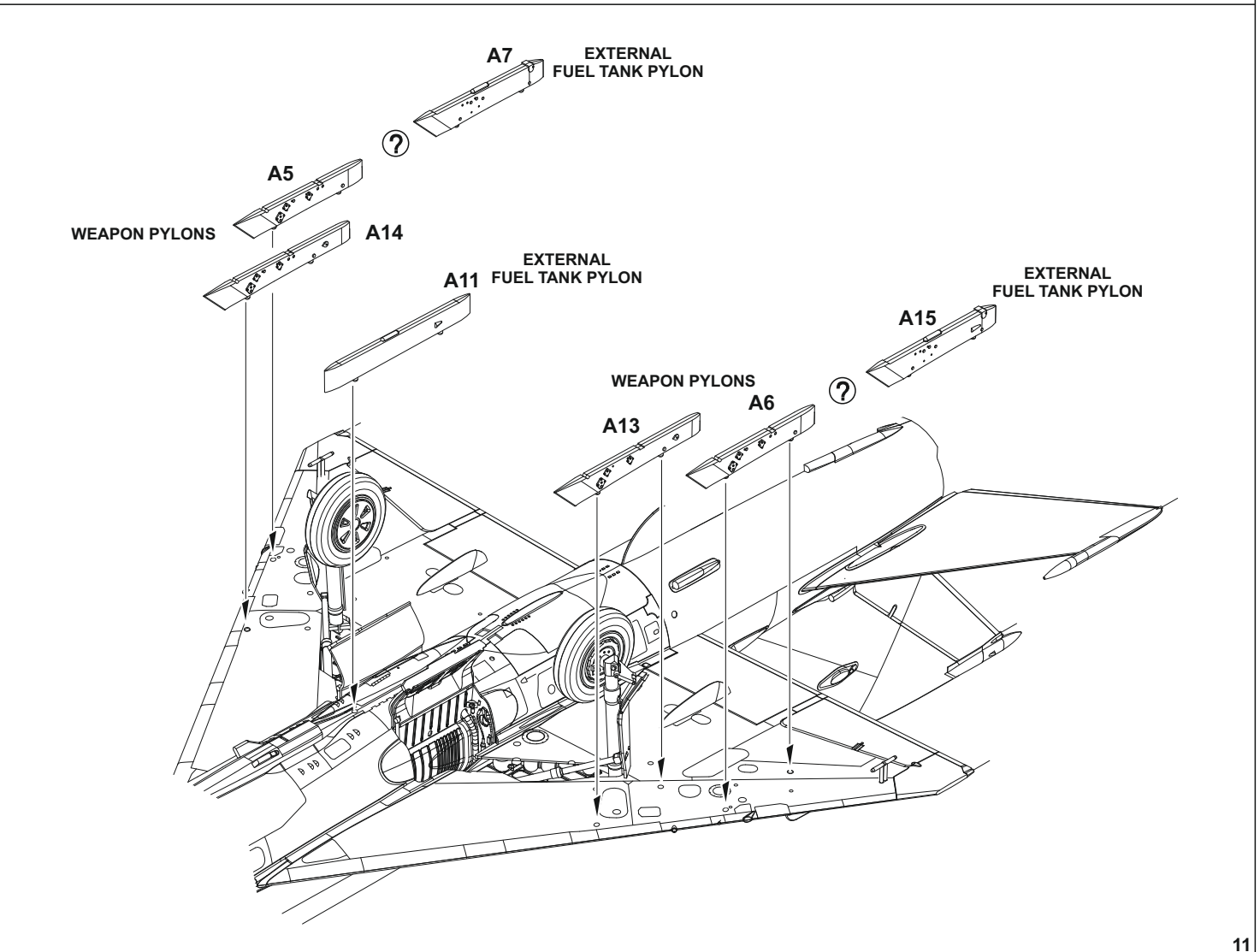
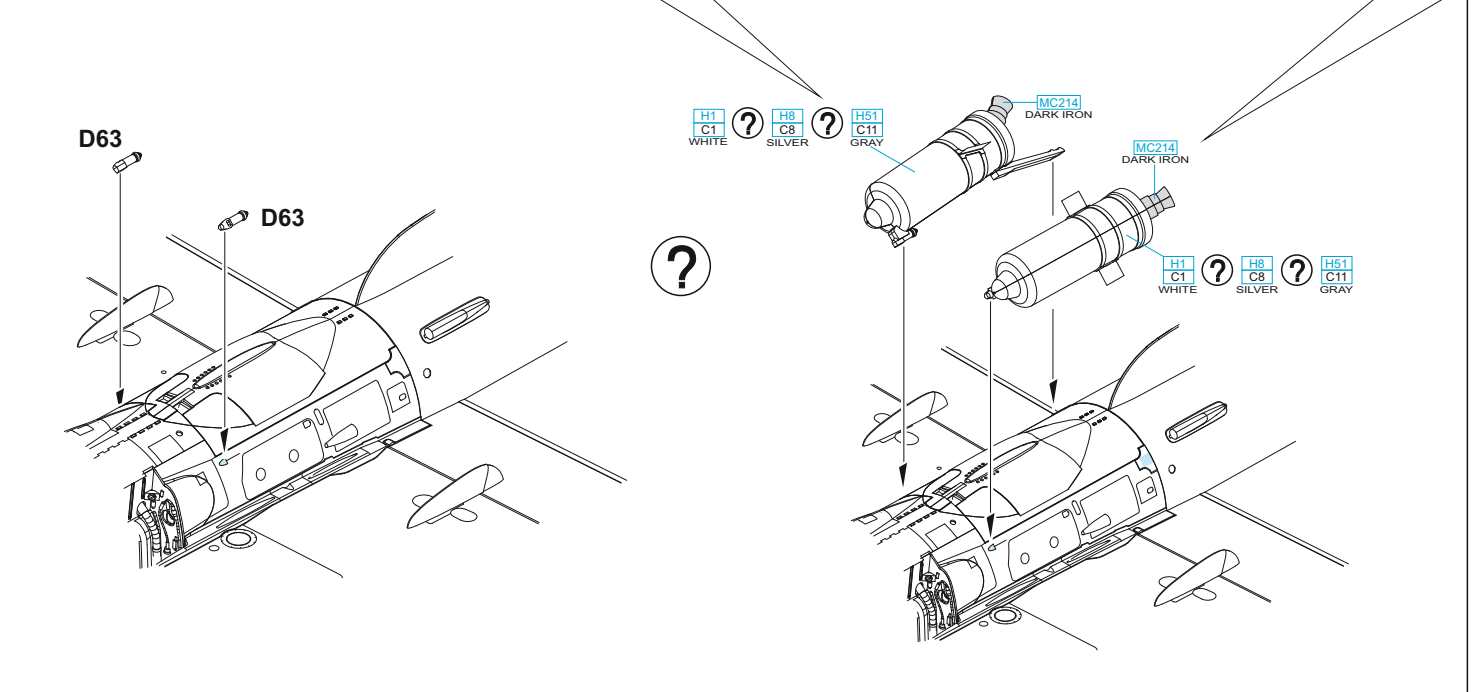
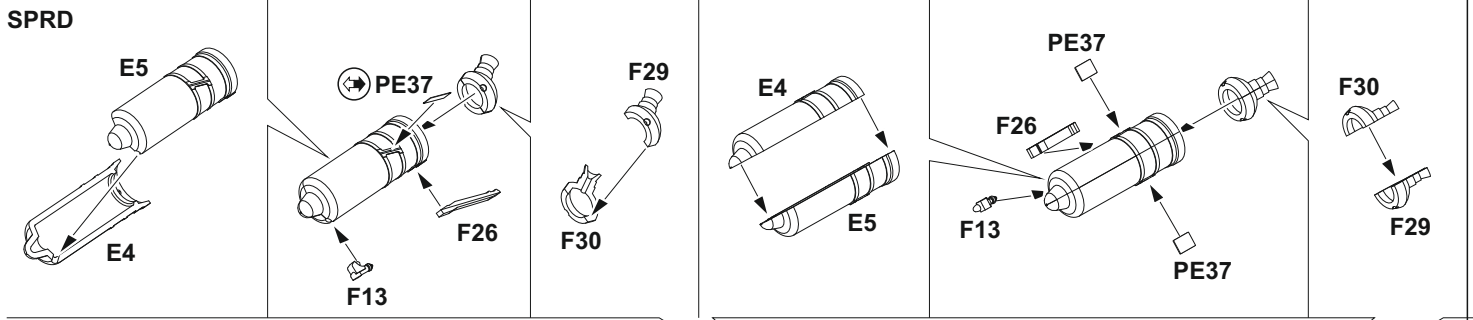
decal H53



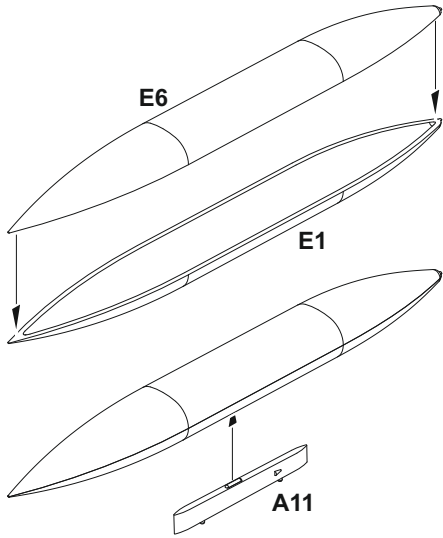




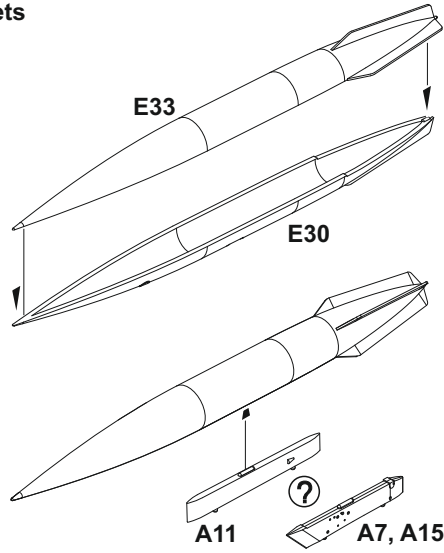




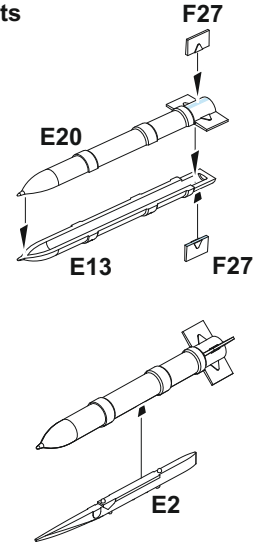
**EXTERNAL FUEL TANK 800I**



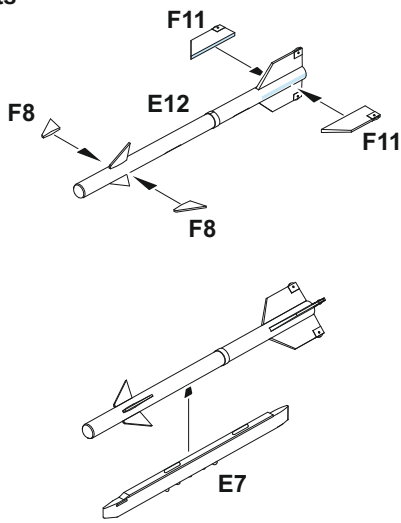
**EXTERNAL FUEL TANK 490I**  
2 sets



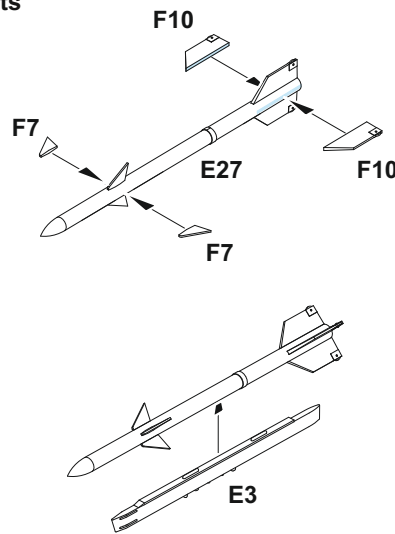
**S-24**  
2 sets



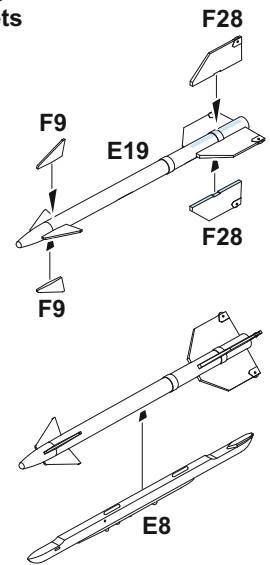
**R-3S**  
2 sets



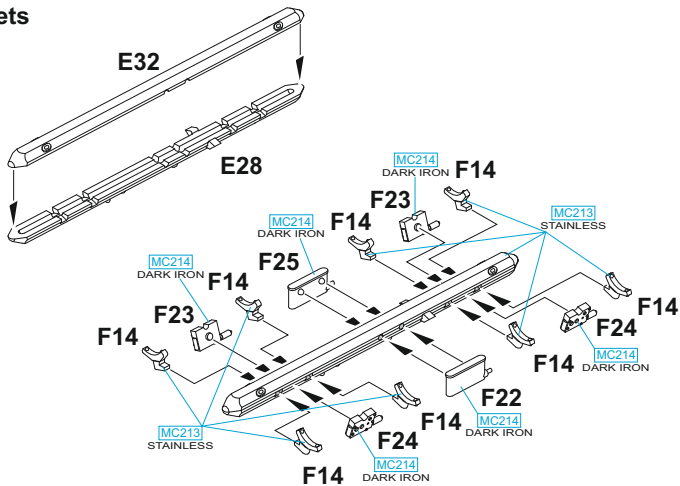
**R-3R**  
2 sets



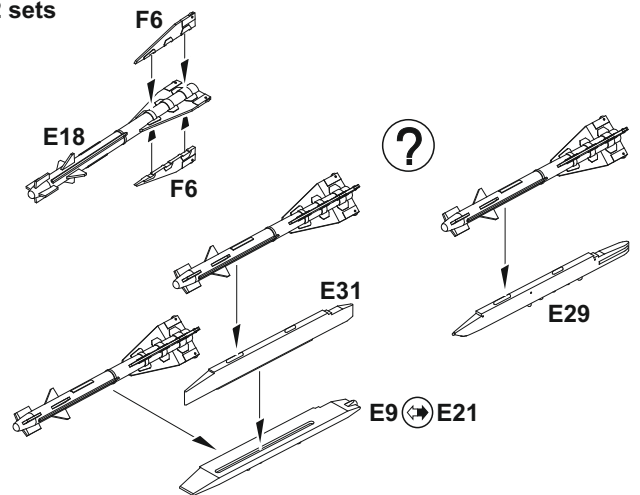
**R-13**  
2 sets



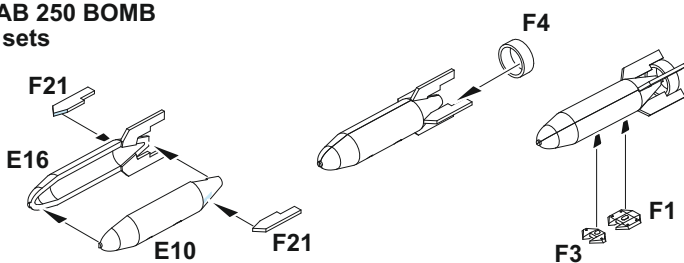
**MBD FOR 4x FAB 100**  
2 sets



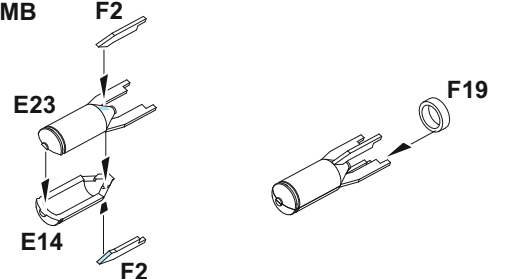
**R-60**  
2 sets



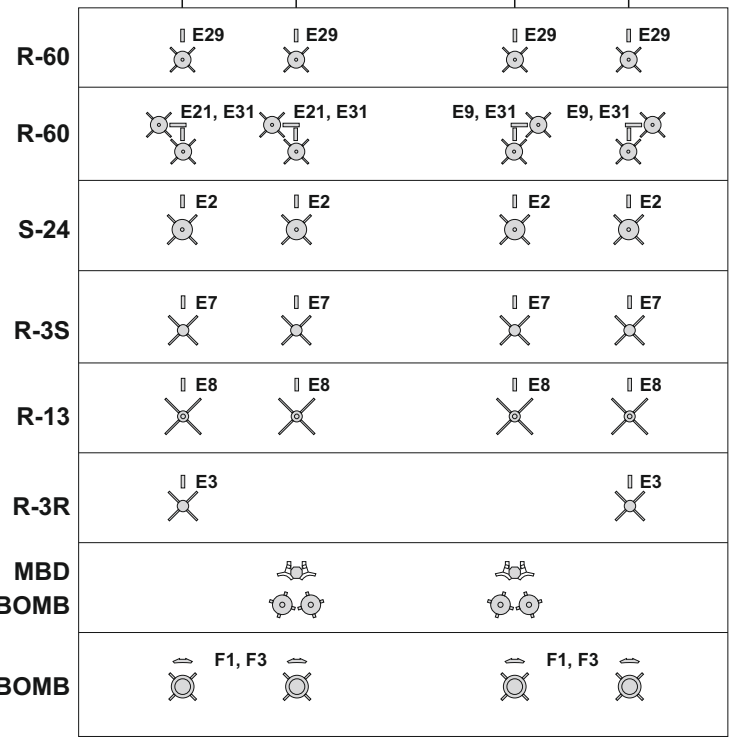
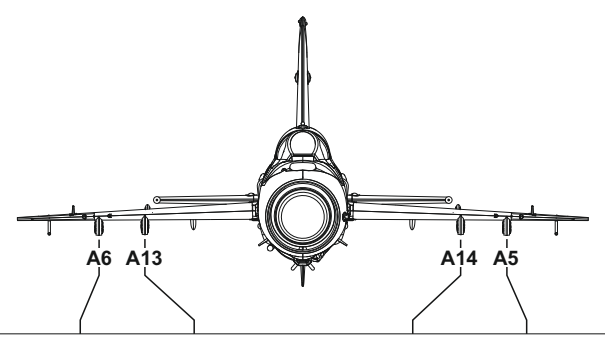
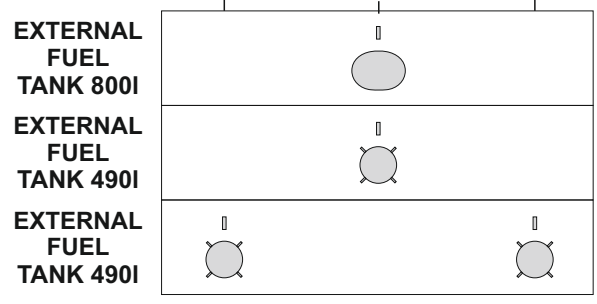
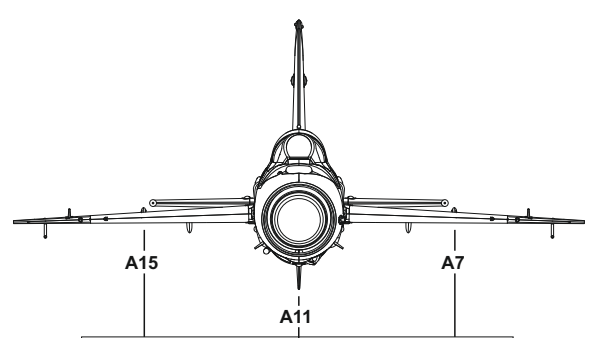
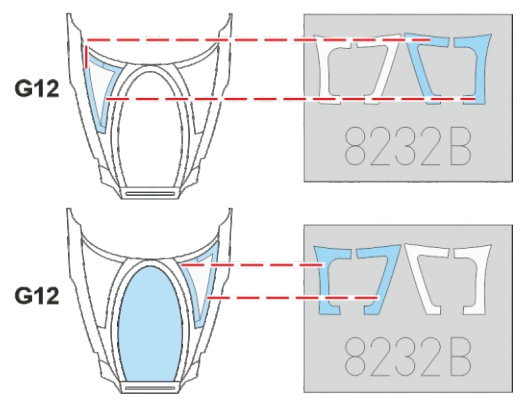
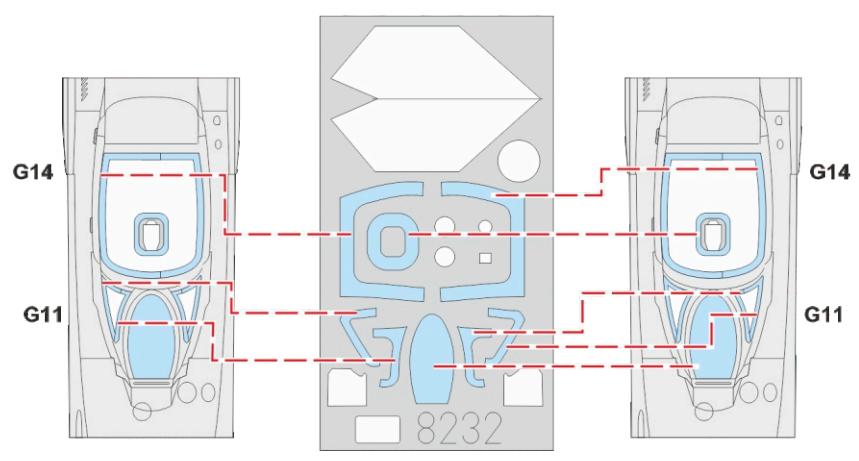
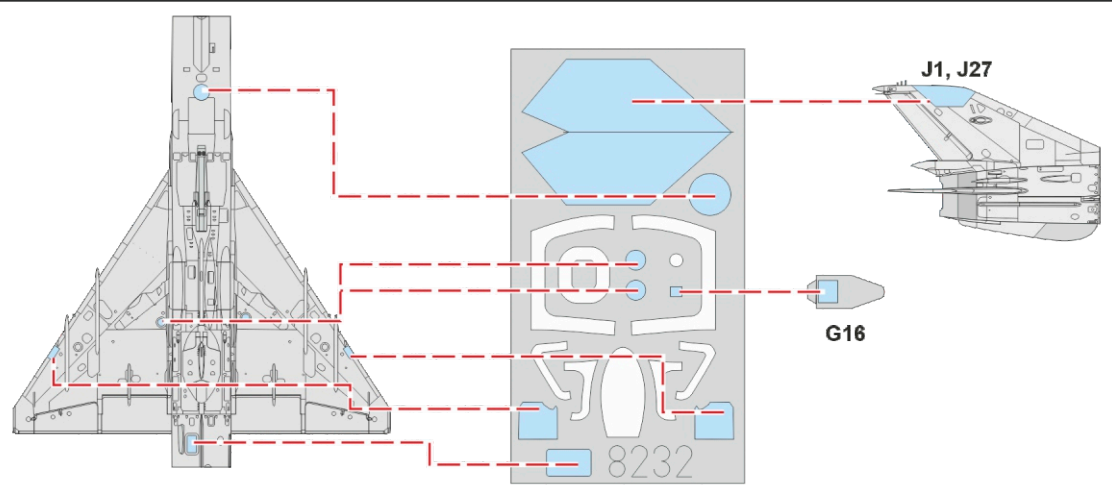
**FAB 250 BOMB**  
2 sets



**FAB 100 BOMB**  
8 sets





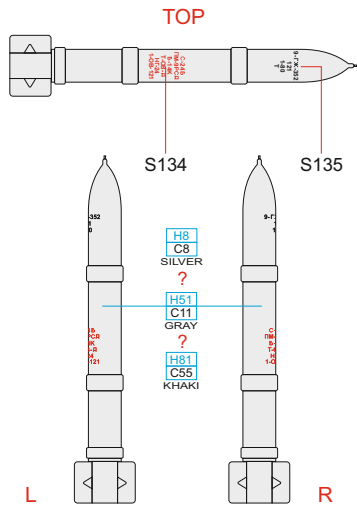


**TO CHOOSE WEAPON AND EXTERNAL FUEL TANK OPTION PLEASE FOLLOW YOUR REFERENCE.**

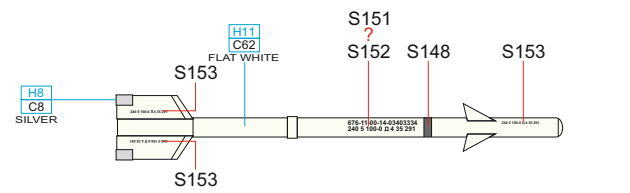
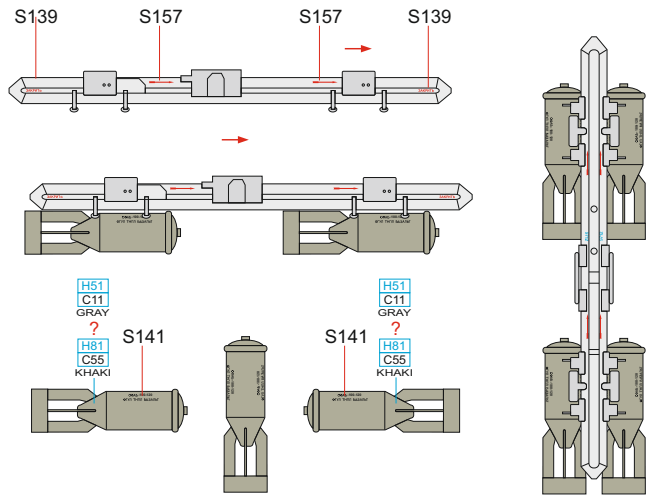
**PRO VOLBU VÝZBROJE A PŘÍDAVNÝCH NÁDRŽÍ SE DRŽTE DOKUMENTACE KONKRÉTNÍHO STROJE.**

**FAB 100 BOMB**  
**FAB 250 BOMB**

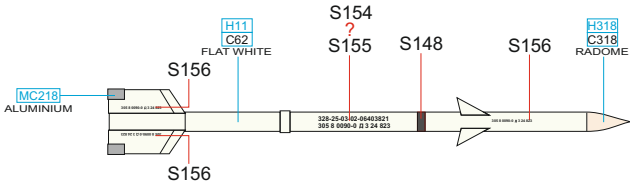
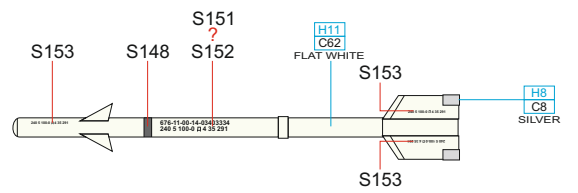
S-24



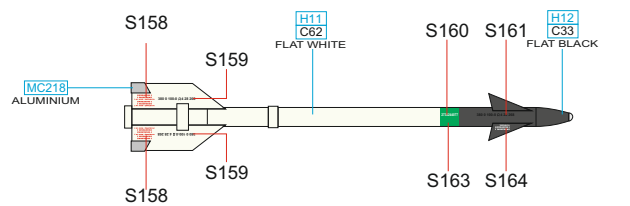
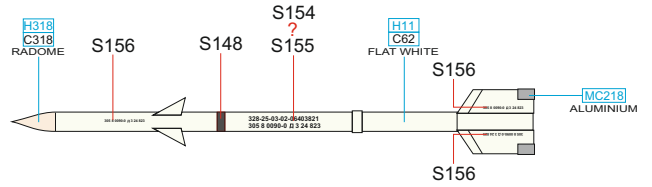
MBD WITH FAB 100



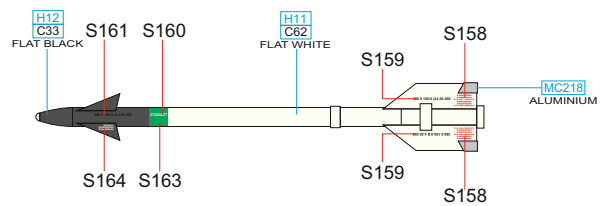
R-3S



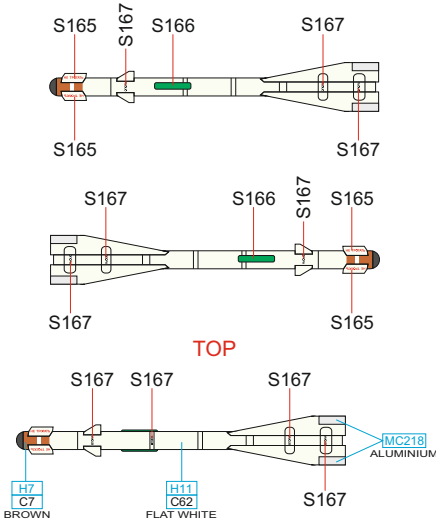
R-3R



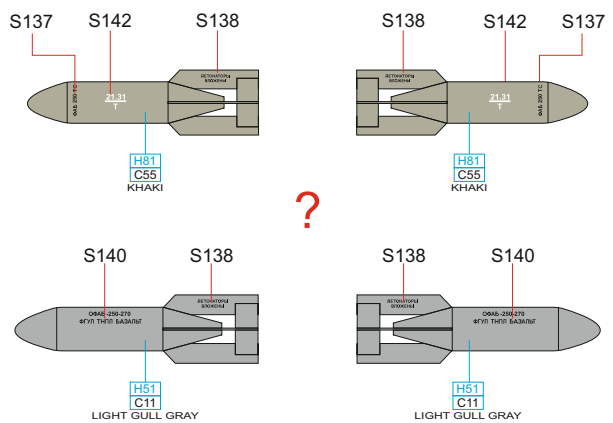
R-13



R-60



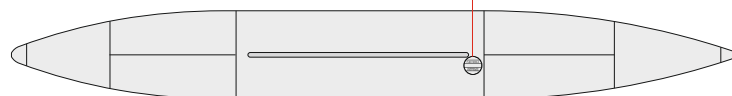
FAB 250



EXTERNAL FUEL TANK 490I



EXTERNAL FUEL TANK 800I



S170

APU 2xR60  
(E9, E21)

S172



LEFT OUTSIDE  
UNDERWING TANK PYLON  
(A7)

RIGHT OUTSIDE  
UNDERWING TANK PYLON  
(A15)

FUSELAGE PYLON  
(A11)



S107

S105

S106

S108

LEFT OUTSIDE PYLON  
(A5)

RIGHT OUTSIDE PYLON  
(A6)



S17 ? S33

S109

S110

S110

S120

S17 ? S33

LEFT INSIDE PYLON  
(A14)

RIGHT INSIDE PYLON  
(A13)



S17 ? S33

S111

S112

S118

S119

S17 ? S33

APU-7  
(E2)



S113

S116

S115

S117

S123

S123

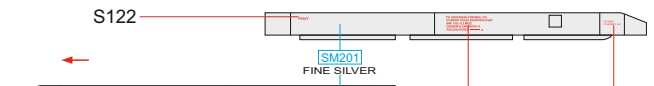
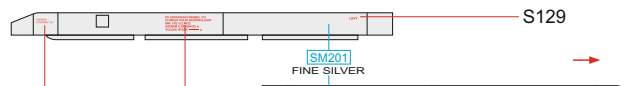
S117

S115

S116

S114

APU-13  
(E7)



S130

S121

S131

S130

S129

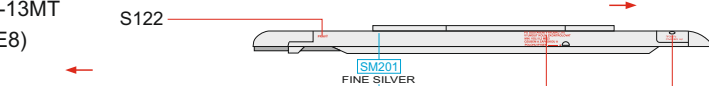
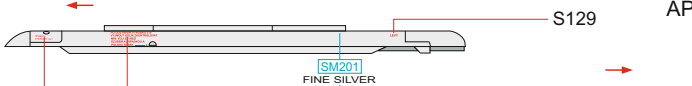
S130

S131

S121

S130

APU-13MT  
(E8)



S130

S121

S131

S130

S129

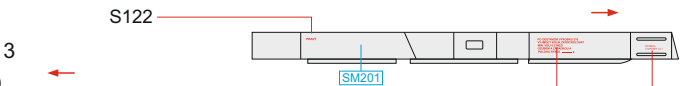
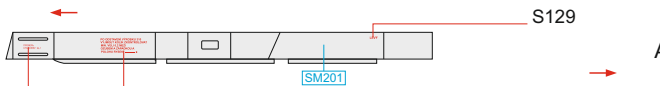
S130

S131

S121

S130

APU-13  
(E3)



S130

S121

S131

S130

S129

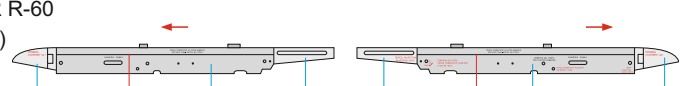
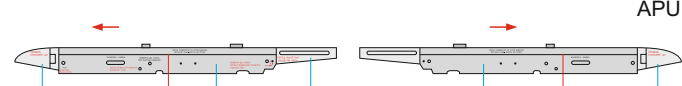
S130

S131

S121

S130

APU FOR R-60  
(E29)



SM201  
FINE SILVER

S144

H82  
C311  
DARK GRAY

SM201  
FINE SILVER

H82  
C311  
DARK GRAY

S145

SM201  
FINE SILVER

SM201  
FINE SILVER

S146

H82  
C311  
DARK GRAY

SM201  
FINE SILVER

SM201  
FINE SILVER

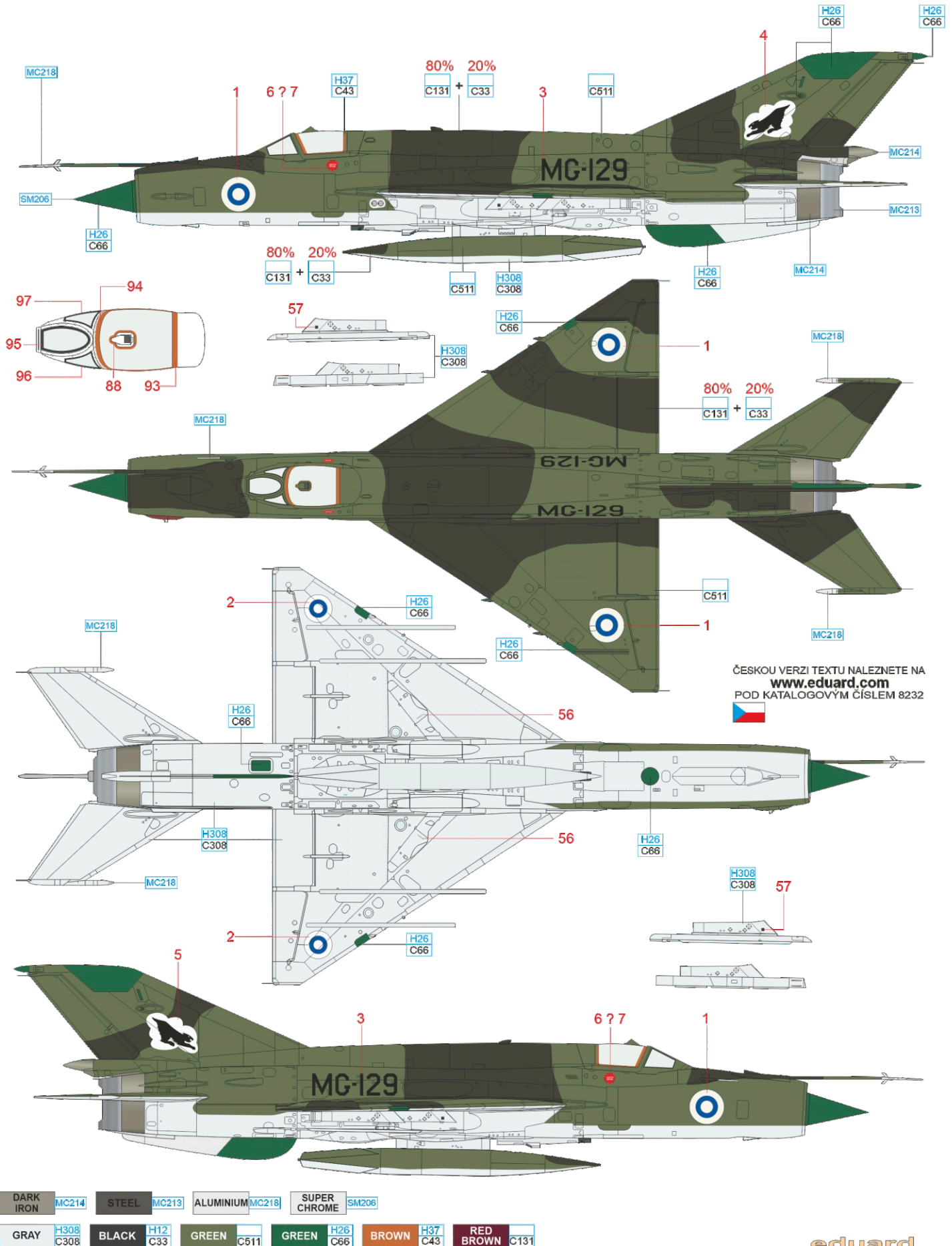
S143

H82  
C311  
DARK GRAY

SM201  
FINE SILVER

# A MiG-21BIS, c/n 75084300, HävLLv 31, Kuopio airbase, Finland, 1980 – 1981

This aircraft was accepted for service on July 17, 1980 and assigned to 31 Fighter Squadron (Hävittäjälentolaivue 31, abbreviated HävLLv 31). It became the last of six Finnish MiG-21BIS fighters to be modified for reconnaissance tasks. After the modification, the aircraft was assigned to TiedLLv (Reconnaissance Squadron) and following its end of service it was used as a teaching aid at the Technical School located at the Kuopio Air Base. The aircraft is shown as it appeared between 1980 and 1981 before being upgraded by western avionics, which included cockpit instrumentation. Unlike other users, Finland used capital letters for designation of their MiGs, that's why it is written as BIS here as well.

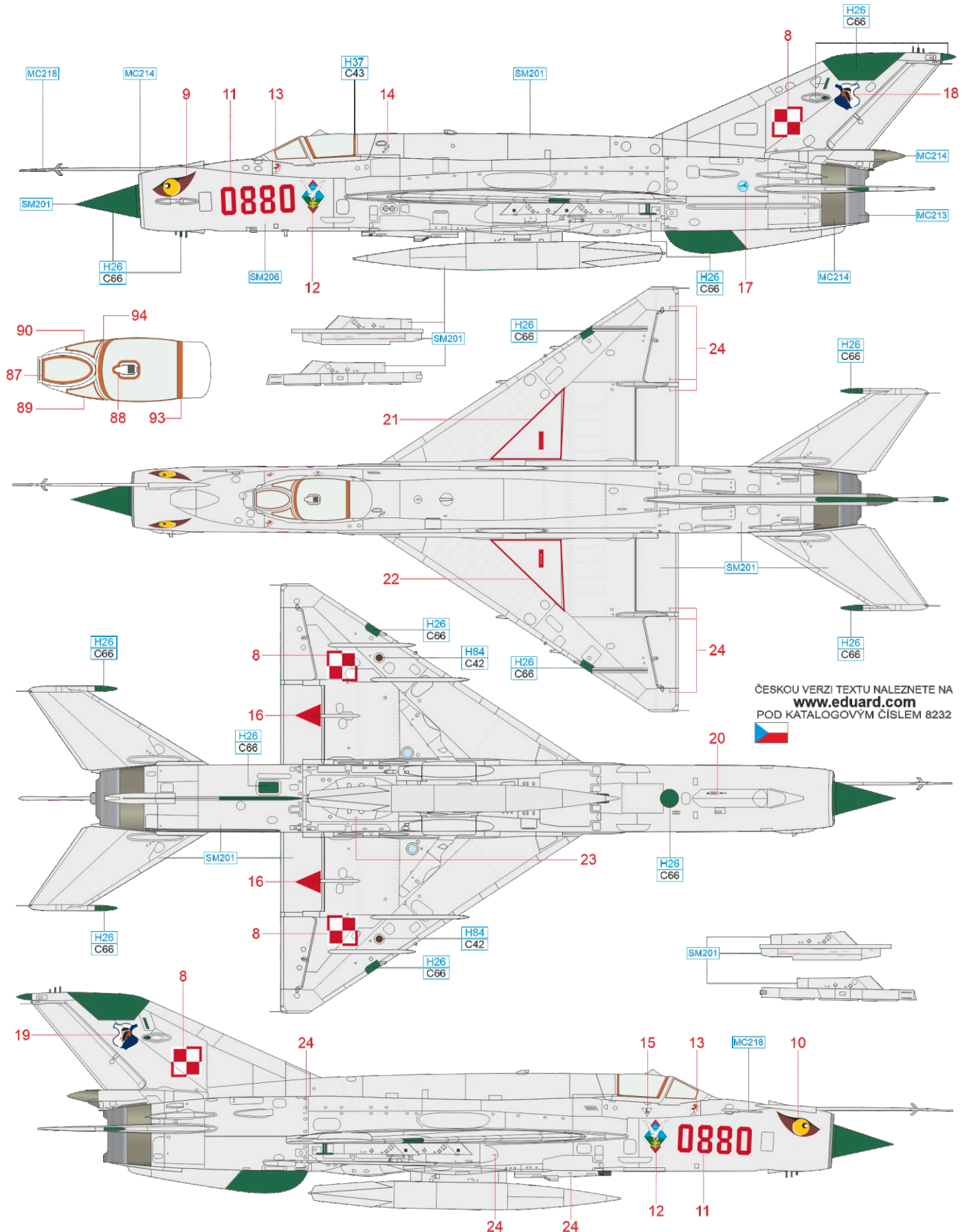


DARK IRON	MC214	STEEL	MC213	ALUMINIUM	MC218	SUPER CHROME	SM206
GRAY	H308 C308	BLACK	H12 C33	GREEN	C511	GREEN	H26 C66
						BROWN	H37 C43
						RED BROWN	C131



**B** MiG-21bis, c/n 75080880, 1 Pucki DLMW, Lotnictwo Marynarki Wojennej, Gdynia-Babie Doły, Poland, late 1997

This aircraft was delivered to Poland on March 22, 1980 and was assigned to the 1 Pucki Dywizjon Lotniczy (Air Division) of the Polish Naval Forces. The emblem on the tail surface indicates service with the 2<sup>nd</sup> Eskadra (Squadron) of the Division. The look of the plane evolved over time, and in 2001 it flew with a sharkmouth and a tiger motif on the brake chute housing.



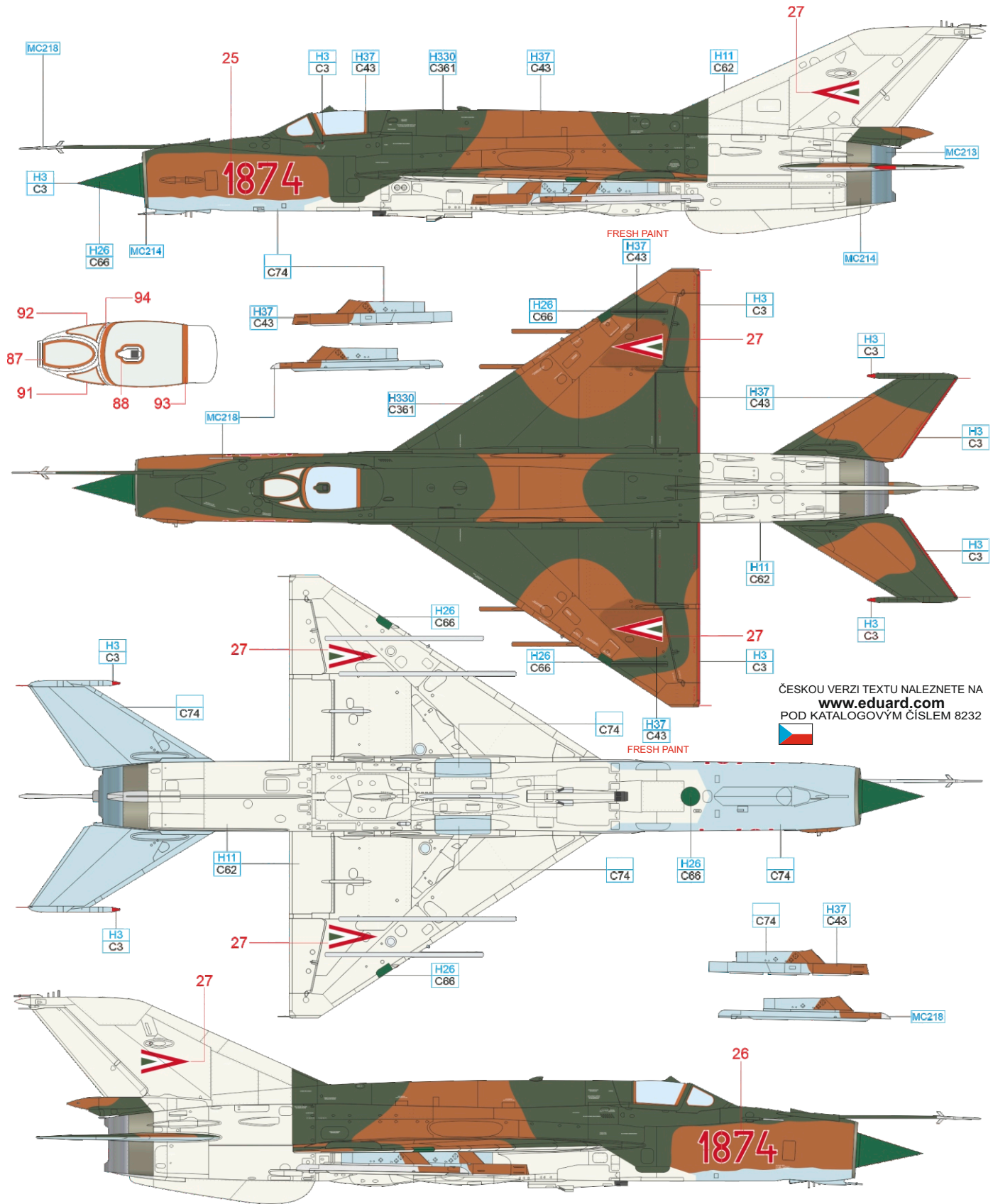
ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
POD KATALGOVÝM ČÍSLEM 8232



DARK IRON	MC214	STEEL	MC213	ALUMINIUM	MC218
FINE SILVER	SM201	BRIGHT GREEN	H26 C66	BROWN	H37 C43
				MAHOGANY	H84 C42

# C MiG-21bis, c/n 75061874, 47 Pápa Harcászati Repülő Ezred, Pápa airbase, Hungary, 1991

MiG-21bis, serial number 75061874, served with the 47 Combat Regiment (Harcászati Repülőezred). In 1991, it received a temporary white coloring on the rear of the fuselage and a portion of the bottom. In this guise, it took part in DACT (Dissimilar Air Combat Training) exercises, in which the opposing aircraft pitted against each other were of differing types. Later, it was assigned to the "Sky Hussars" demonstration team. In 2006, it was mothballed and put in storage at Pápa, and in 2007, it was sold into the private collection of Gerhard Neumann Museum at Niederalteich in Germany.



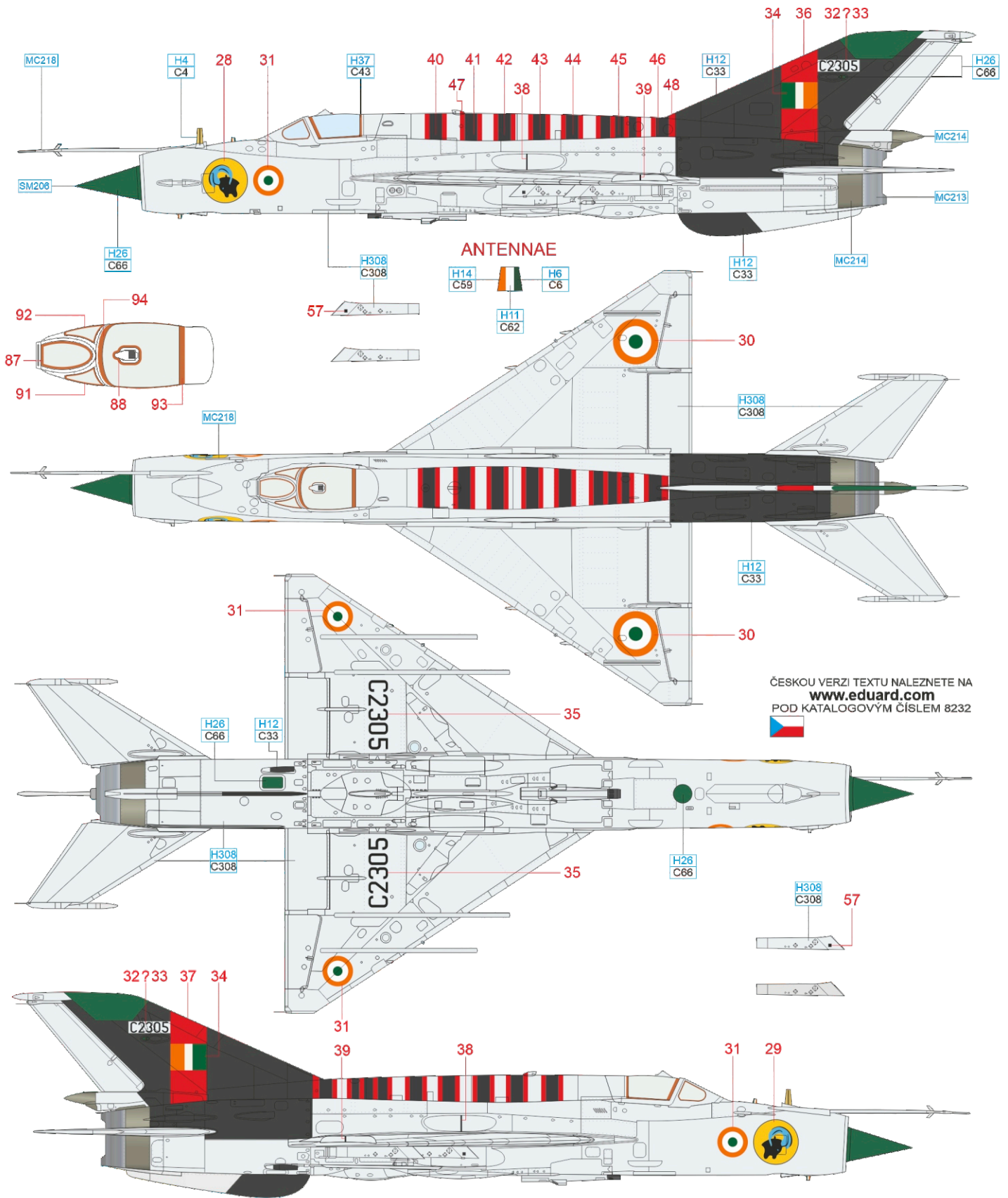
ČESKOU VERZI TEXTU NALEZNETE NA  
[www.eduard.com](http://www.eduard.com)  
 POD KATALOGOVÝM ČÍSLEM 8232



DARK IRON	MC214	STEEL	MC213	ALUMINIUM	MC218	BRIGHT GREEN	H26 C66	BLUE	C74	WOOD BROWN	H37 C43	DARK GREEN	H330 C361	WHITE	H11 C62	RED	H3 C3
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# D MiG-21bis, Tactics & Air Combat Development Establishment, Jamnagar airbase, India, September 1986

The aircraft coded C2305 was assigned to the Center for the development of tactics for aerial combat and served there during September 1986. The front of the aircraft referred to its former user, No. 4 Squadron of the IAF. This unit was dubbed "Oorials" after the local type of mountain sheep. Together with the unit's motto, "Honor over Death" this symbolizes stamina, strength, and a fighting spirit. The colorful paint scheme of Indian MiGs was used during one of the military exercises.



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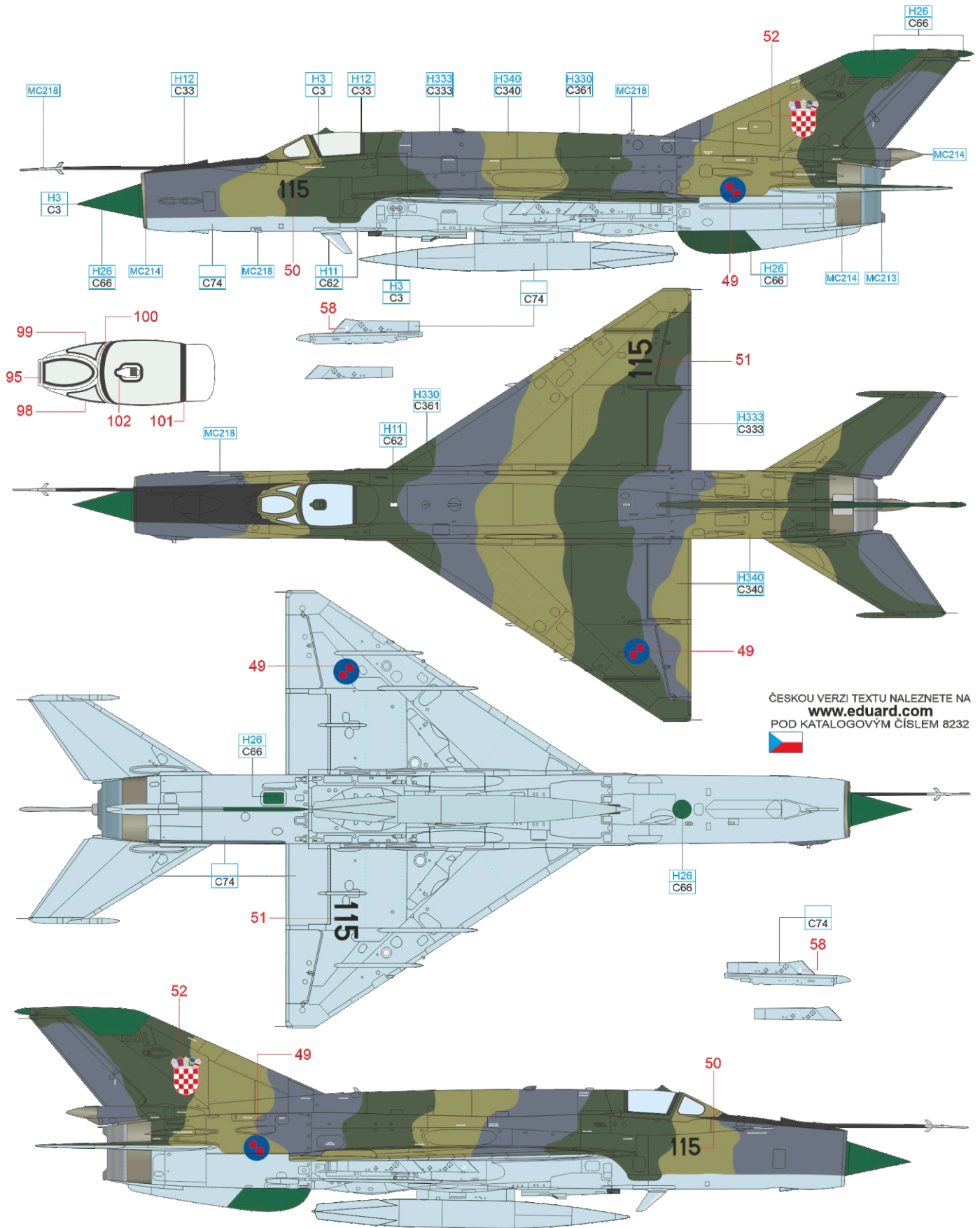


DARK IRON	MC214	STEEL	MC213	ALUMINIUM	MC218	SUPER CHROME	SM206
GRAY	H308 C308	BLACK	H12 C33	BROWN	H37 C43	ORANGE	H14 C59
						BRIGHT GREEN	H26 C66
						WHITE	H11 C62
						YELLOW	H4 C4



# E MiG-21bisD, c/n 75002075, 22 eskadrila lovačkih zrakoplova, Pula airbase, Croatia, 2008

This aircraft was one of a number of MiG-21s purchased in the first half of the nineties despite a UN embargo from the Ukraine. The first unit to use the aircraft was the 22 eskadrila lovačkih zrakoplova (Fighter Squadron) based at Pula. In 2003, this was one of eight MiG-21bis aircraft to be modernized in Romania by Aerostar to MiG-21bisD standard. Later, the plane was observed at Zagreb, Tchakovec and Zadar. It carries a typical camouflage scheme for the modernized bisD aircraft.



ČESKOU VERZI TEXTU NALEZNETE NA  
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DARK IRON MC214 STEEL MC213 ALUMINIUM MC218

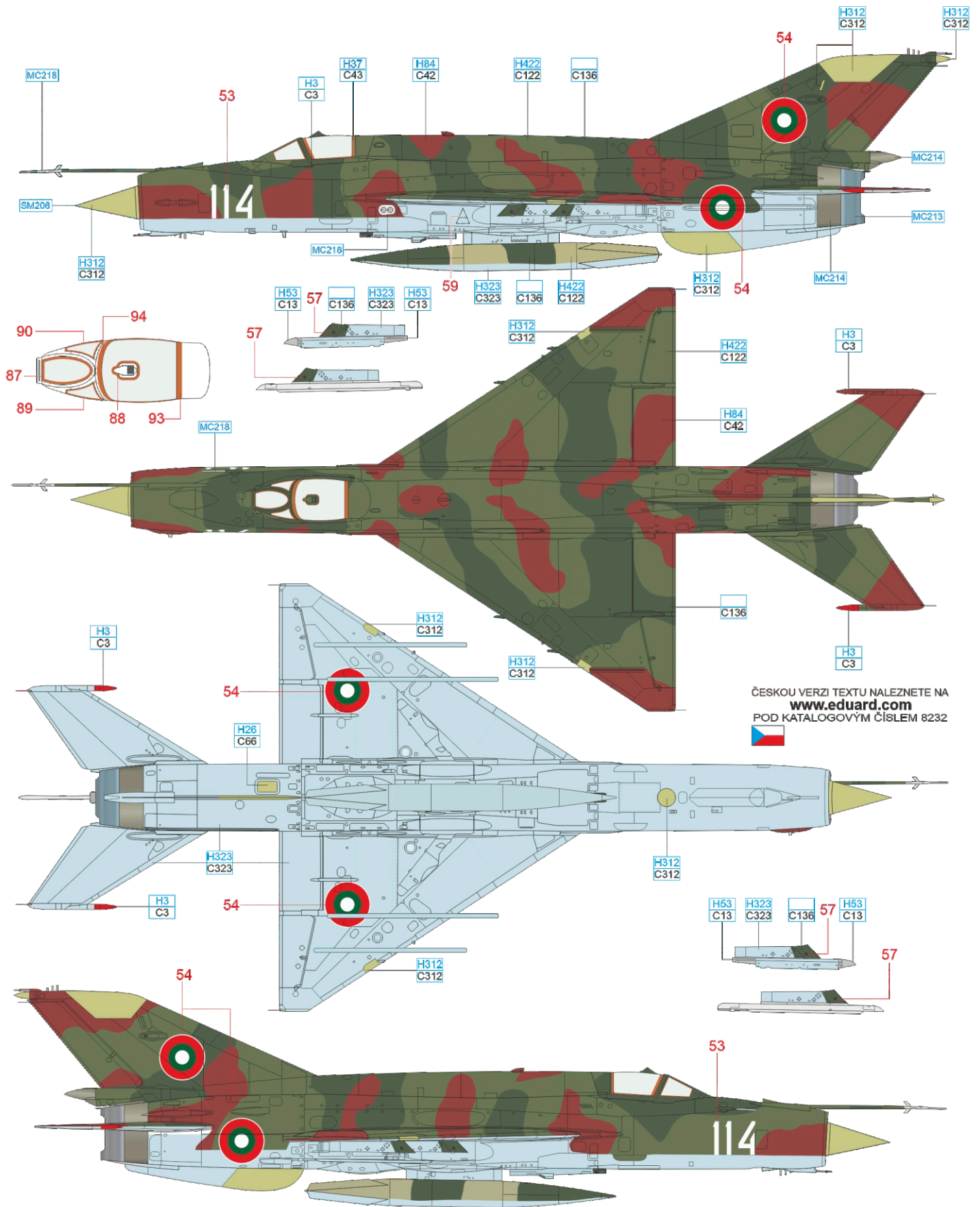
DARK GREEN H330 C361 EXTRA DARK H333 C333 GREEN H340 C340 BLUE C74 BRIGHT GREEN H26 C66 BLACK H12 C33 FLAT WHITE H11 C62 RED H3 C3

eduard



# F MiG-21bis, No. 3 Air Base, Graf Ignatevo, Bulgaria, from 2002

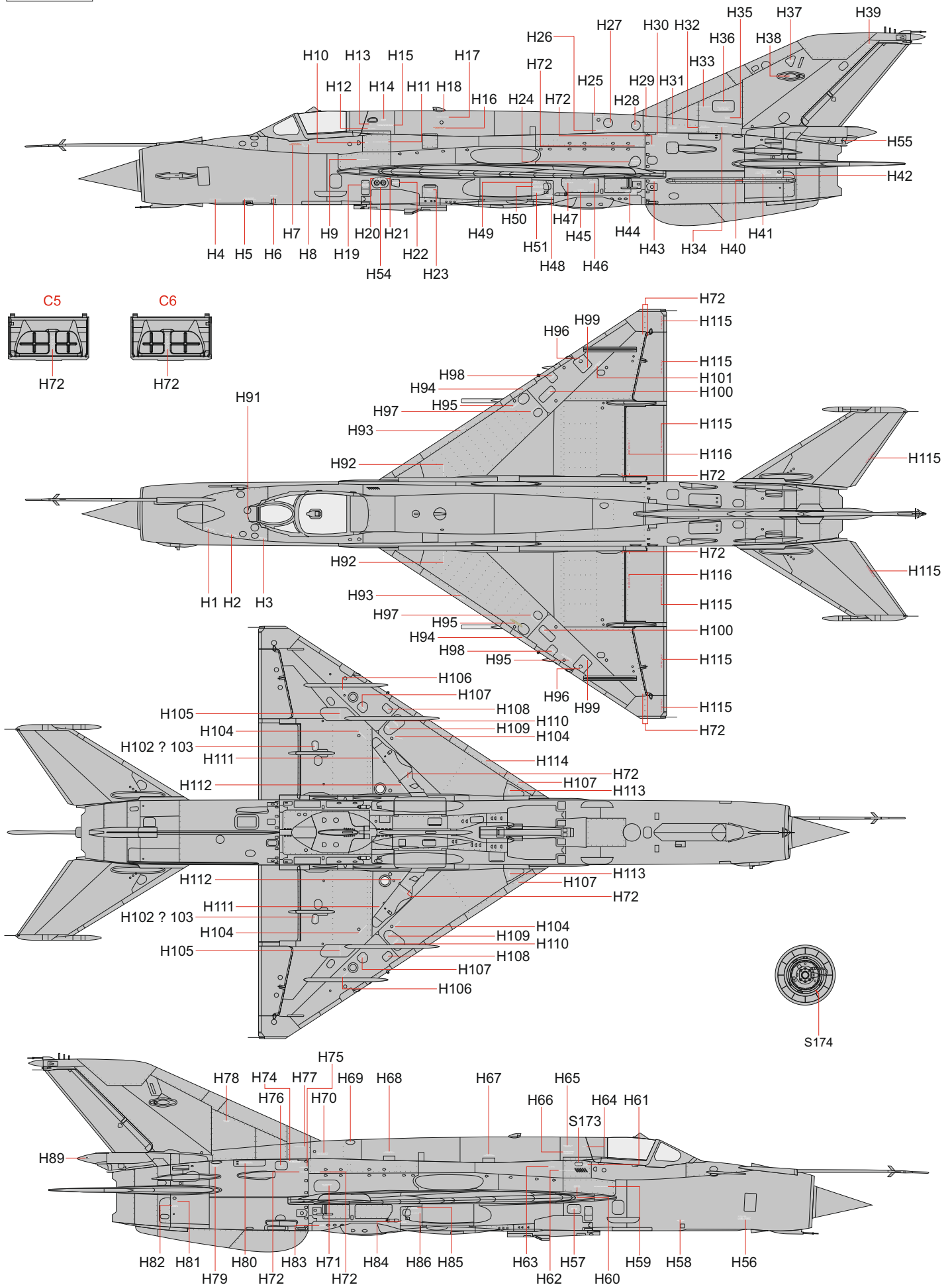
MiG-21bis serial number 75094114 was delivered to Bulgaria in 1983. The first user of the aircraft was the 19 Fighter Regiment. From 2002, it served at Air Base No. 3 based at Graf Ignatevo, where the MiG-21s shared the base with the more modern MiG-29s. The last MiG-21bis delivered directly from the factory was retired from the Bulgarian Air Force in 2015, while the second-hand aircraft from the Soviet Air Force delivered in 1990 were retired in 2000.



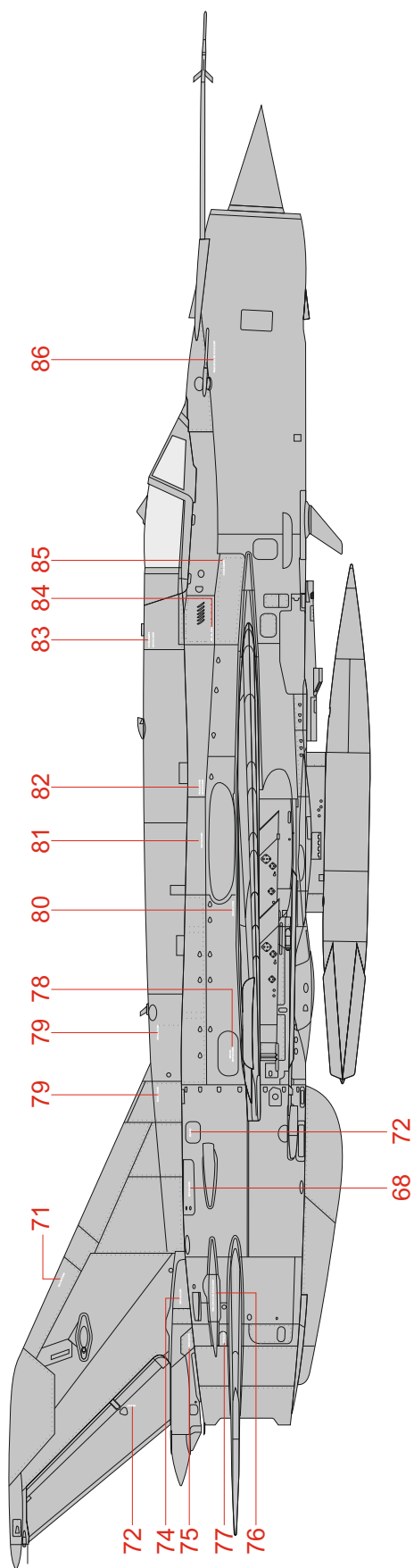
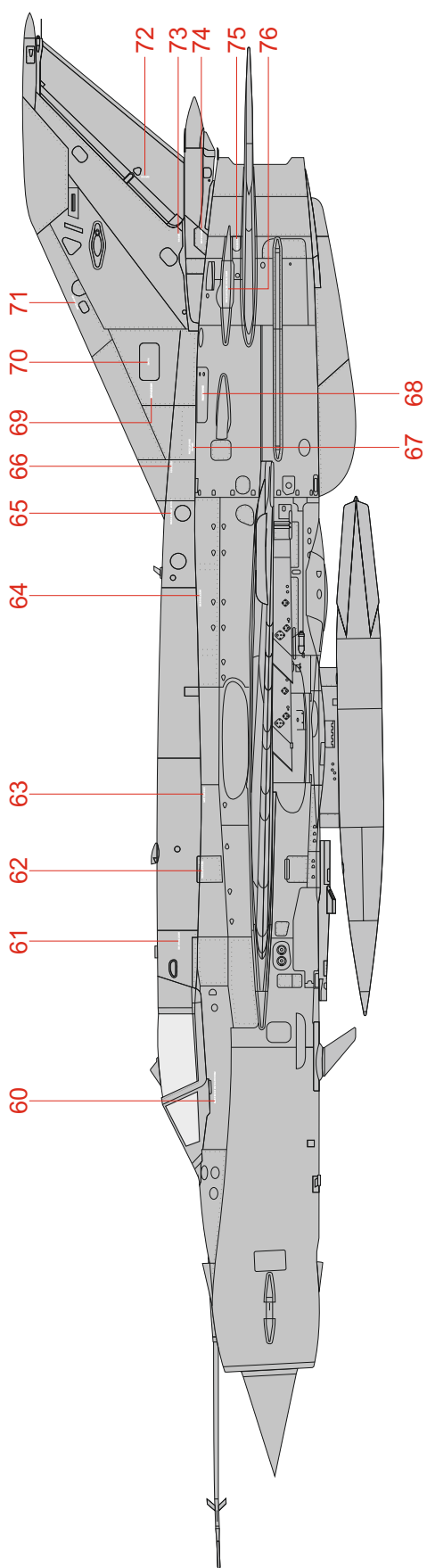
DARK IRON MC214 STEEL MC213 ALUMINIUM MC218 SUPER CHROME SM208

GREEN H312 C312 GREEN H422 C122 GREEN C136 MAHOGANY H84 C42 LIGHT BLUE H323 C323 RED H3 C3 GRAY H53 C13 BROWN H37 C43

MARKING C



MARKING 



MARKINGS A, B, D, F

