# MiG-21MF Fighter Bomber

# eduard

#### 1/72 Scale Plastic Model Kit



# **ProfiPACK**

# The MiG-21 was the most produced supersonic fighter in the world serving with more than fifty Air Forces over four continents.

The MiG-21 was one of a long-list of Mikoyan-Gurevich designs 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 the supersonic 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 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 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 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. Simultaneously, two-seat training versions were also produced designated 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 license in Czechoslovakia and the MiG-21FL, M and bis 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.

Over the course of the Cold War, the opponents of the MiG-21 included the likes of the Northrop F-5 Freedom Fighter or the Dassault Mirage III. NATO assigned it the reporting name "Fishbed", while the Soviet pilots called it "Balalaika" due to the shape resemblance with the 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 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. The top of the ladder is occupied by Nguyen Van Coc with nine kills with three eight-victory aces following: Mai Van Cuong, Nguyen Hong Nhi and Pham Thanh Ngan. Of 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 and 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 Fulcrum in eighties.

#### This kit: MiG-21MF

This plastic model kit represents the MiG-21MF, an export version of the MiG-21SM of the VVS where the "M" means "modernizovaniy" (modernized) and the "F" "forsirovanniy" (with afterburner). The MiG-21MF lacked some of the "sensitive" avionics equipment of the SM version. On the other hand, it also sported some improve- ments to its export predecessor, the MiG-21M, in several aspects. It was powered by more powerful Tumansky R-13-300 engine with afterburner and carried the Safir-21/RP-22 radar instead of less effective unit RP-21MA of MiG-21M. The MiG-21MF was identified as Izdelye (series) 96F in factory documentation.

The production started in the Moscow factory No. 30, with first batch of 96 production aircraft in 1969 (it is believed these were shipped to Egypt). Starting from 1974 the production was shifted to the No. 21 factory in Gorkhyi, where 231 aircraft were built before the production shifted to the MiG-21bis version in 1976. These Migs differed from the Moscow production in several technical details and are reffered to as Interceptor version.

Although the MiG-21MF was export version, several aircraft saw service with 234. GvIAP (Guard Fighter Regiment) of VVS (Voenno Vozdushnie Sily – Air Force) located at the Kubinka air base. The reason was quite simple – the unit was tasked with flight demonstrations for foreigner customers and also with the official parade and display flights.

The armament consisted of the GS-23-2L 23mm cannon with 200 rounds. The underwing pylons could carry a combination of FAB bombs up to 500 kg caliber, UB-16-57 rocket pods, R-3S, Ch-66 or S-24 missiles, and R-60 air-to-air missile, including the R-60M. NATO assigned the MiG-21MF codename "Fishbed J".



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 započetím stavby si pečlivě prostudujte stavební návod. Při používání barev a lepidel pracujte v dobre 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 VOLBA

**(t)** BEND OHNOUT

SAND **BROUSIT** 

 $(\S)$ **OPEN HOLE** VYVRTAT OTVOR **(** 

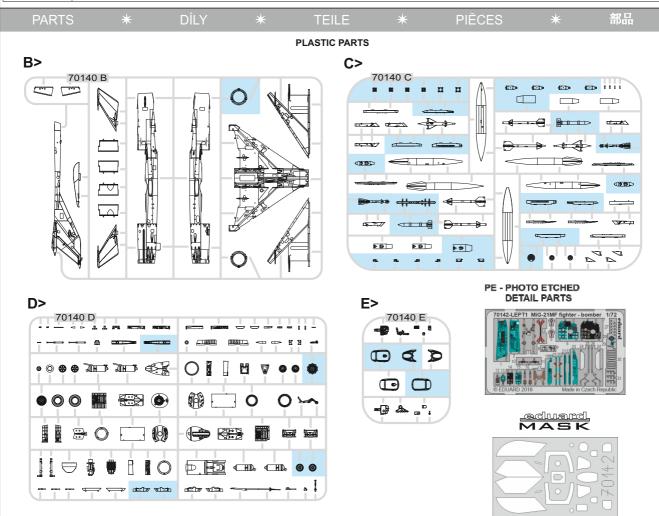
SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ

REMOVE **ODŘÍZNOUT** 

(3) REVERSE SIDE

 $(\mathbf{X})$ APPLY EDUARD MASK OTOČIT AND PAINT POUŽÍT EDUARD MASK **NABARVIT** 

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

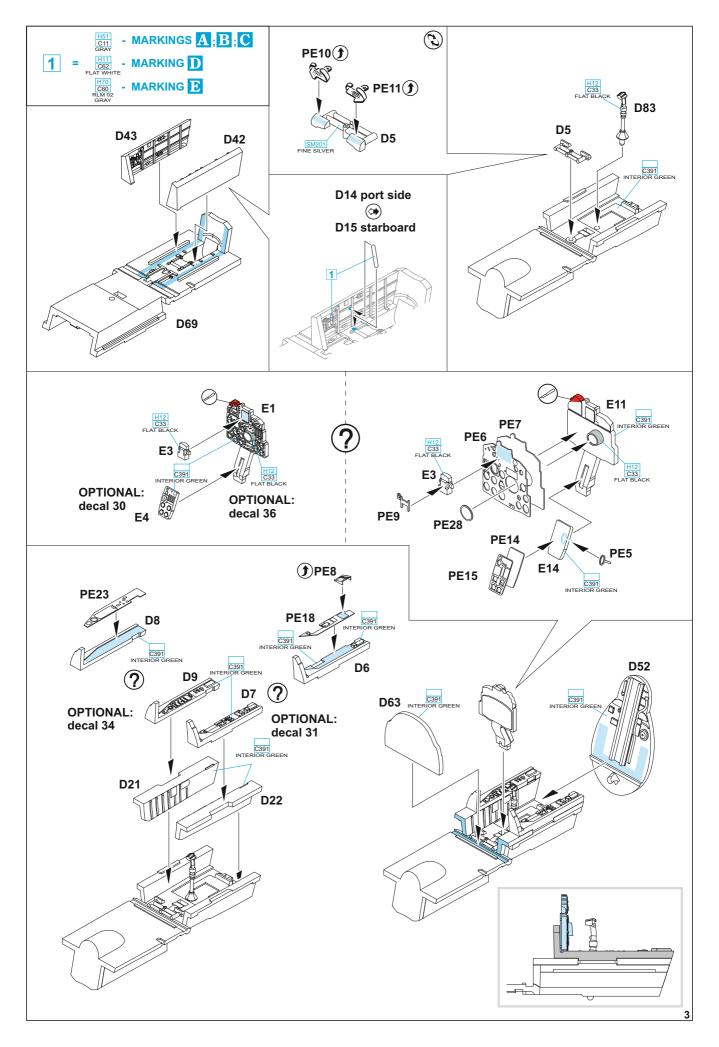


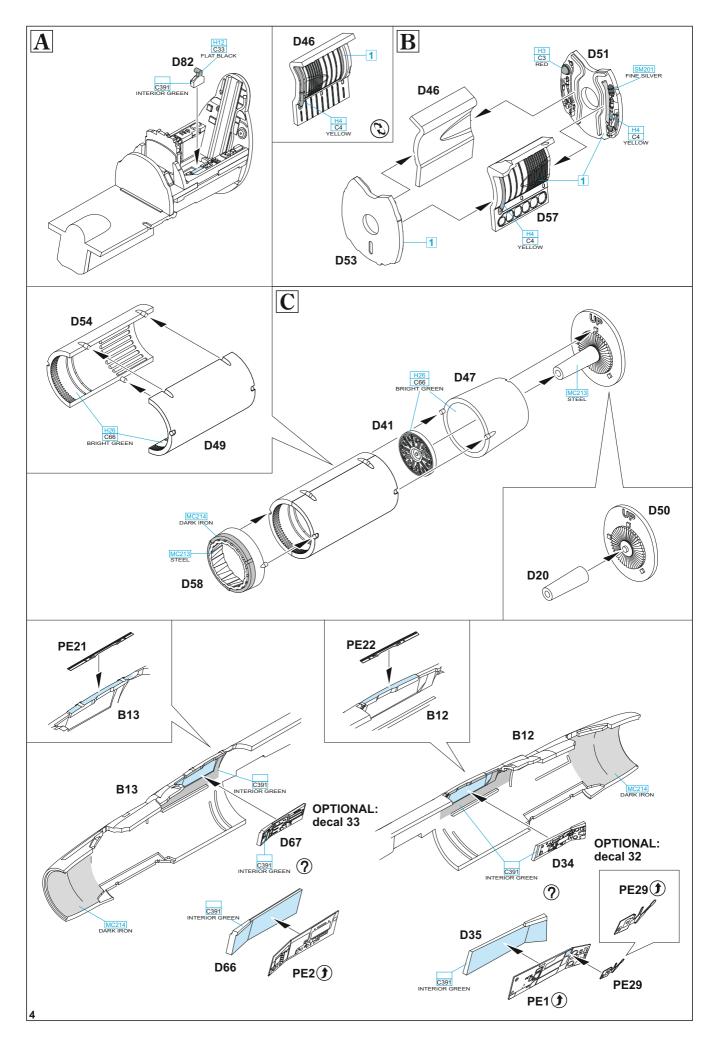
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 🏿 使用しない部品

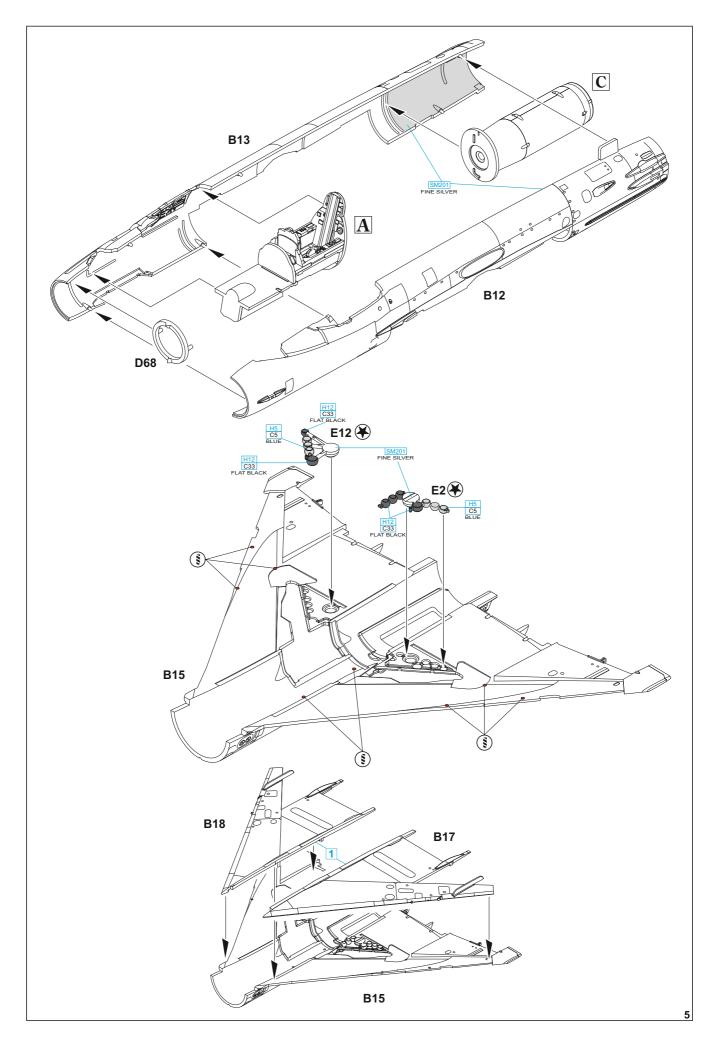
**COLOURS BARVY FARBEN PEINTURE** 

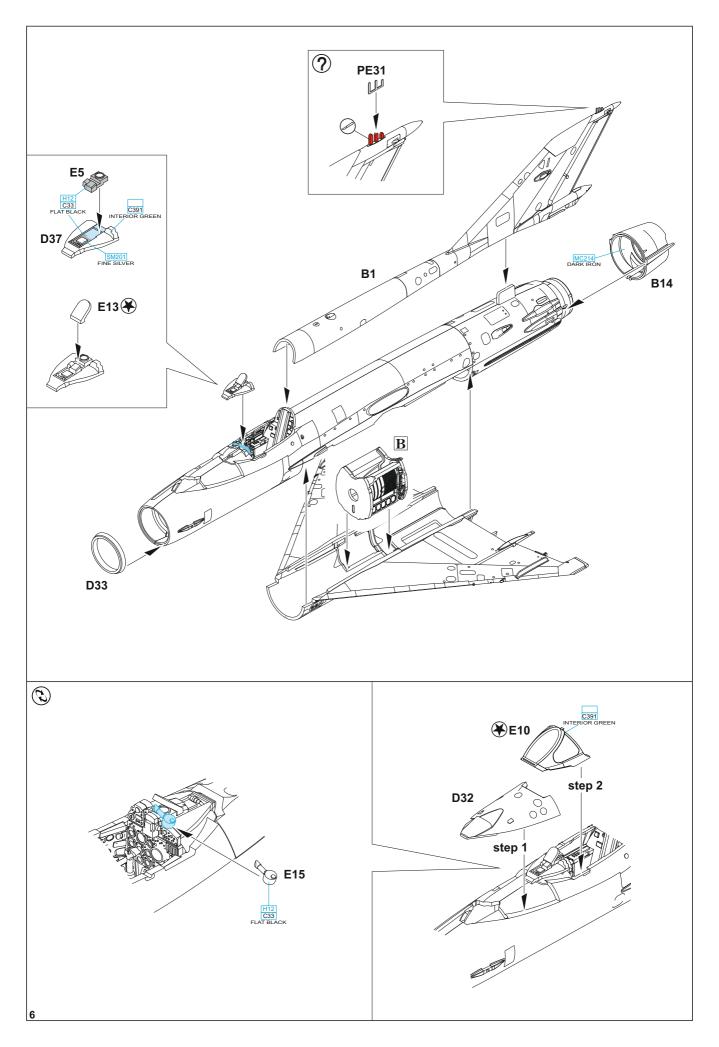
GSi Creos (GUNZE)		]
AQUEOUS	Mr.COLOR	
H1	C1	WHITE
H3	C3	RED
H4	C4	YELLOW
H5	C5	BLUE
H6	C6	GREEN
H11	C62	FLAT WHITE
H12	C33	FLAT BLACK
H26	C66	BRIGHT GREEN
H27	C44	TAN
H37	C43	WOOD BROWN
H47	C41	RED BROWN
H51	C11	LIGHT GULL GRAY
H53	C13	NEUTRAL GRAY
H66	C119	RLM79 SAND YELLOW
H67	C115	RLM65 LIGHT BLUE
H70	C60	RLM02 GRAY
H71	C21	MIDDLE STONE

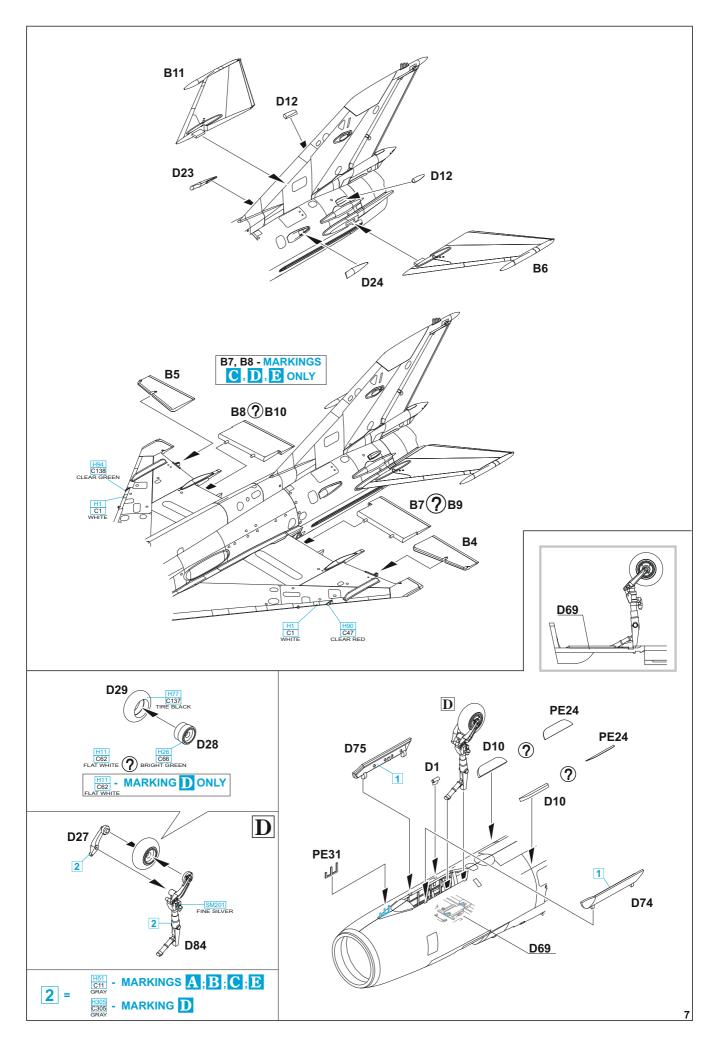
GSi Creos (GUNZE)		
AQUEOUS	Mr.COLOR	
H77	C137	TIRE BLACK
H84	C42	MAHOGANY
H90	C47	CLEAR RED
H94	C138	CLEAR GREEN
H302	C302	GREEN
H305	C305	GRAY
H306	C306	MEDIUM GRAY
H308	C308	GRAY
H332	C332	LIGHT AIRCRAFT GRAY
	C136	RUSSIAN GREEN
	C391	INTERIOR GREEN
Mr.METAL COLOR		
MC213		STEEL
MC214		DARK IRON
MC218		ALUMINIUM
Mr.COLOR SUPER METALLIC		
SM201		SUPER FINE SILVER

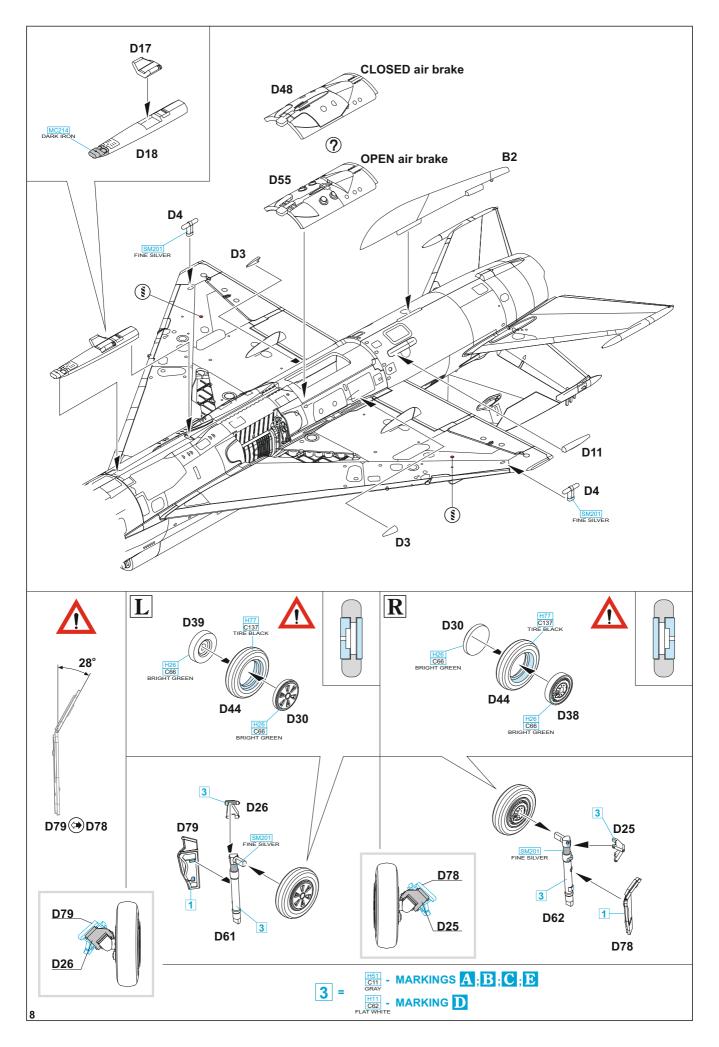


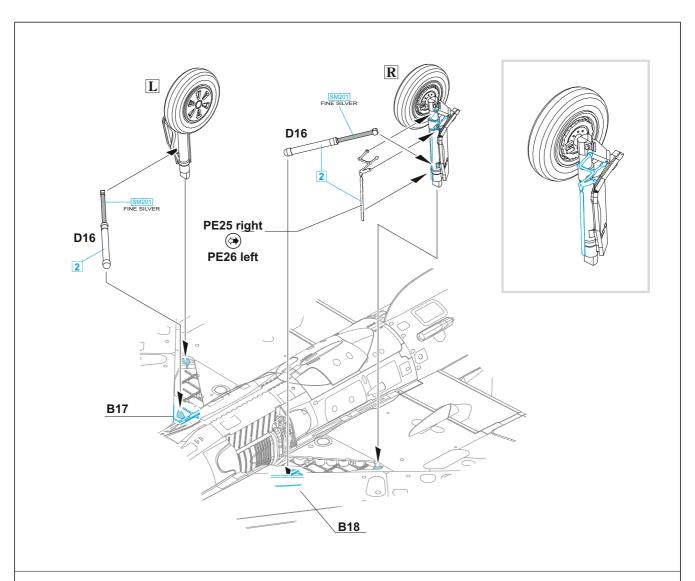


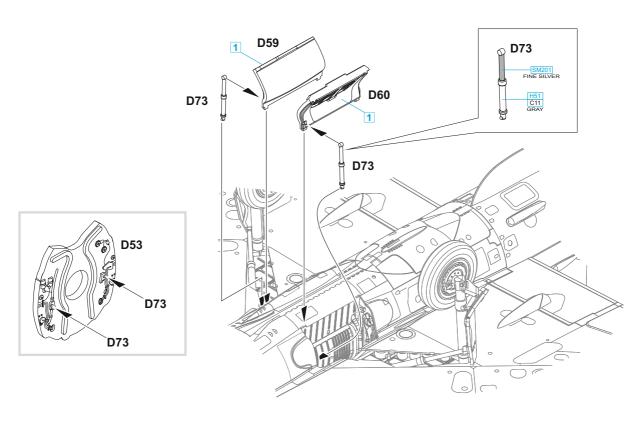


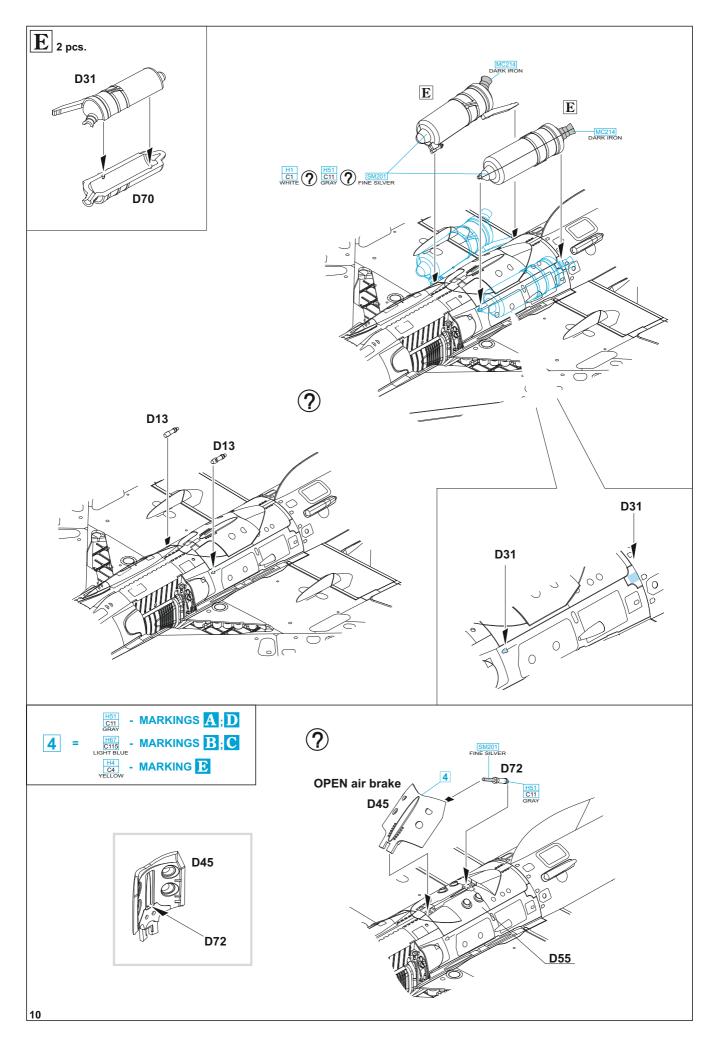


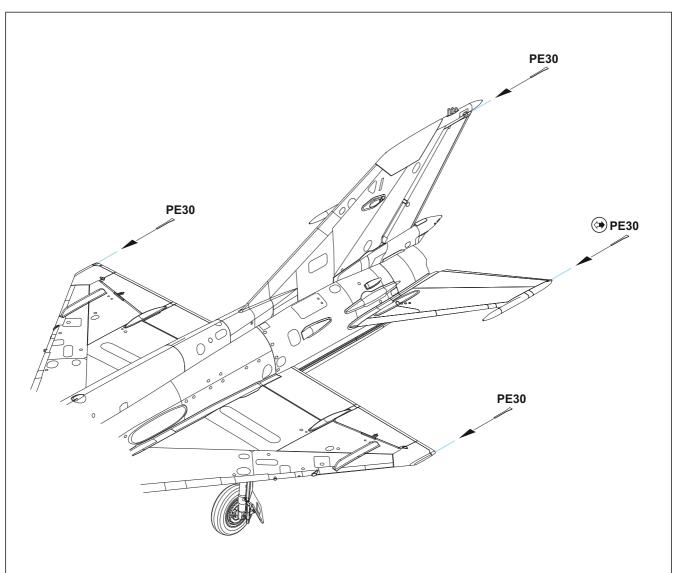


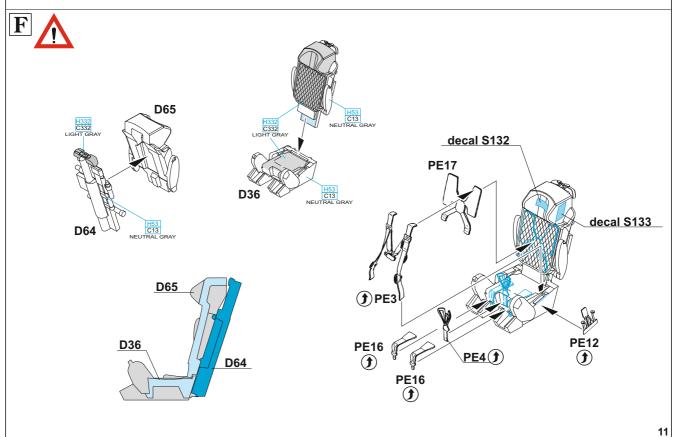


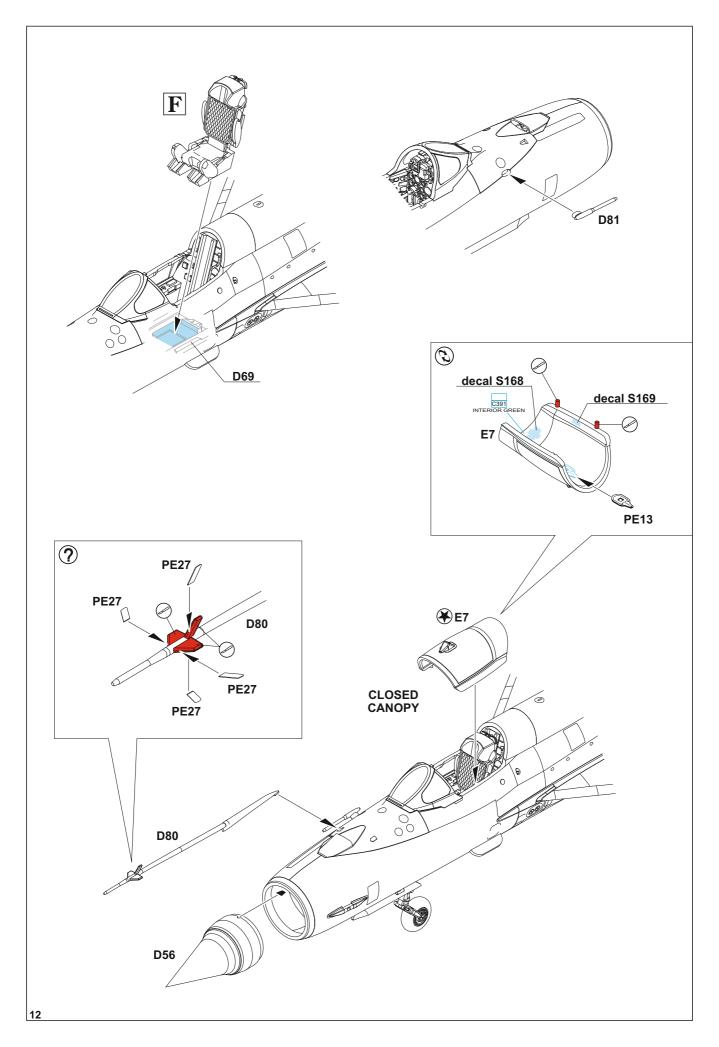


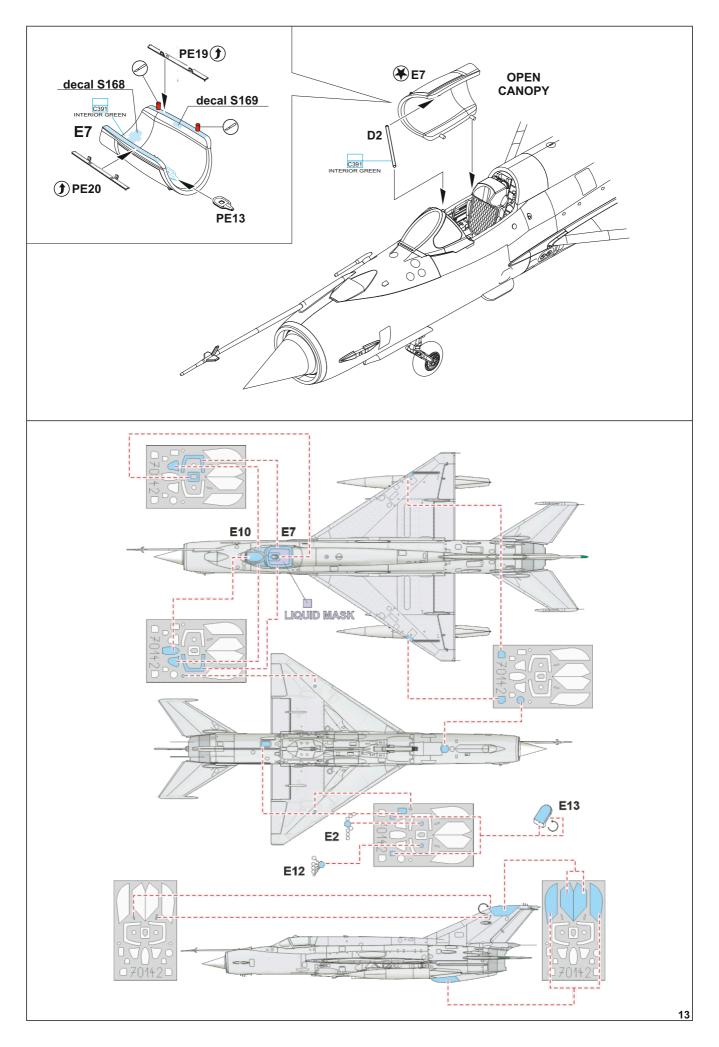


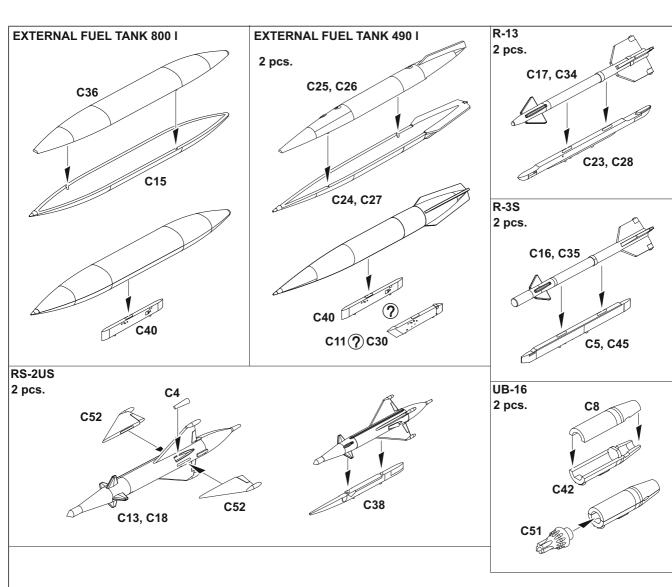


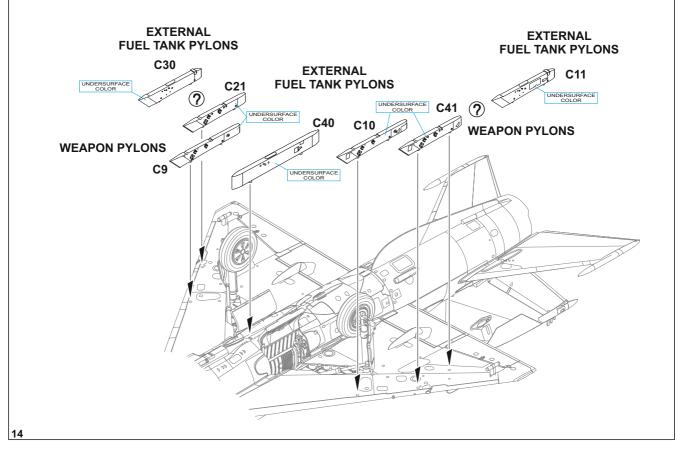


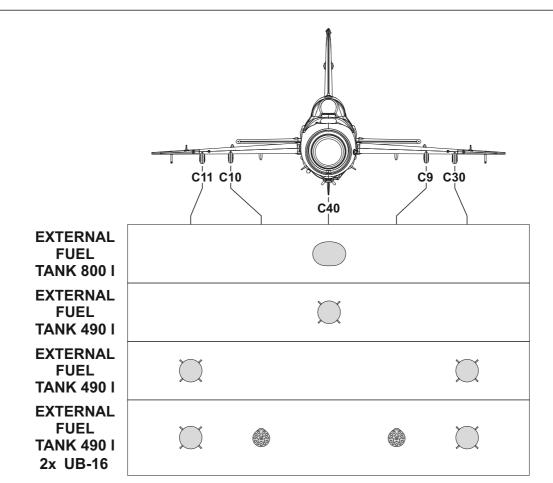




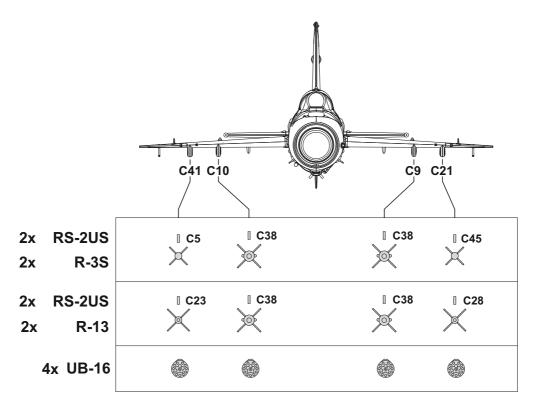








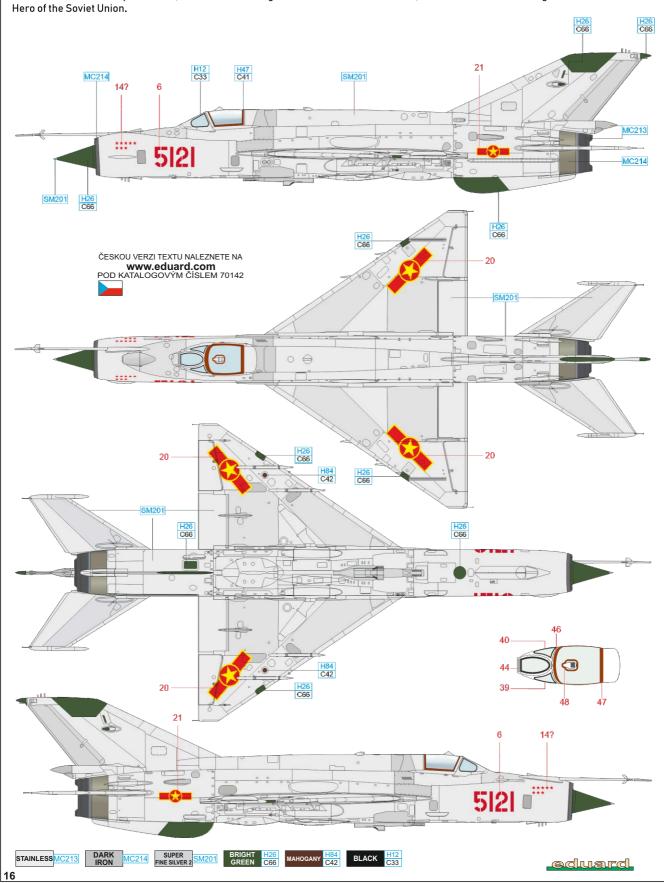
#### TYPICAL ARMAMENT FOR QUICK REACTION ALERT DUTY



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

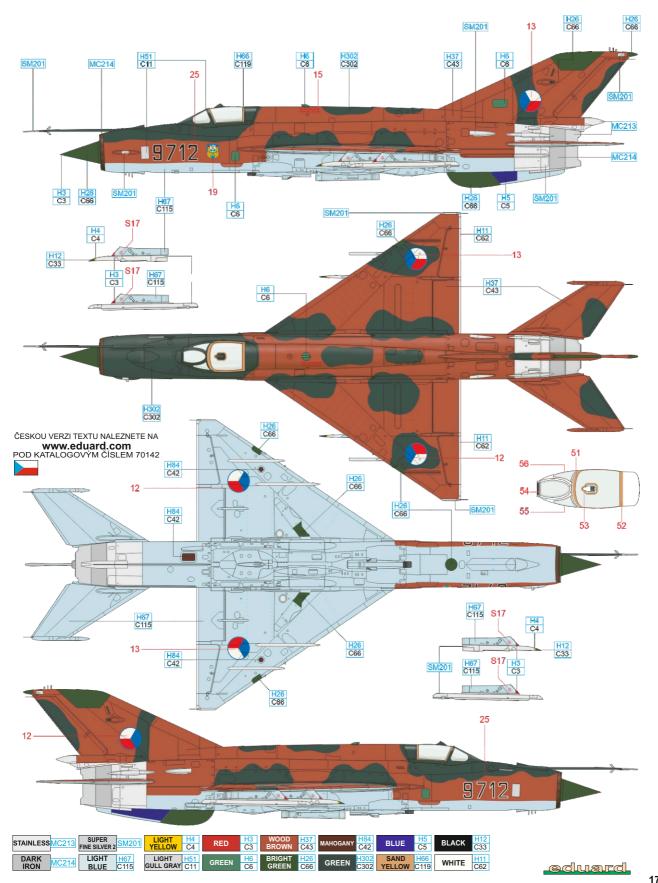
# A No. 5121, Pham Tuan, 921<sup>st</sup> Fighter Regiment, Noi Bai AB, Democratic Republic of Vietnam, December 1972

MiG-21MF coded 5121 is currently displayed in the museum of the Vietnam People's Air Force in Hanoi. Reportedly, on December 27, 1972, Pham Tuan flew this aircraft when he shot down an American B-52 taking part in bombing operations during the Linebacker II offensive. It would be the only MiG-21MF kill over a Stratofortress, but American sources claim the bomber was lost to a SAM. Pham Tuan would later become the only Vietnamese astronaut. He was a crewmember of Soyuz 37 and orbited the earth 142 times in the Salyut 6 station. For his accomplishments, he was awarded high Vietnamese commendations, and was one of a few foreigners to be awarded the Hero of the Soviet Union



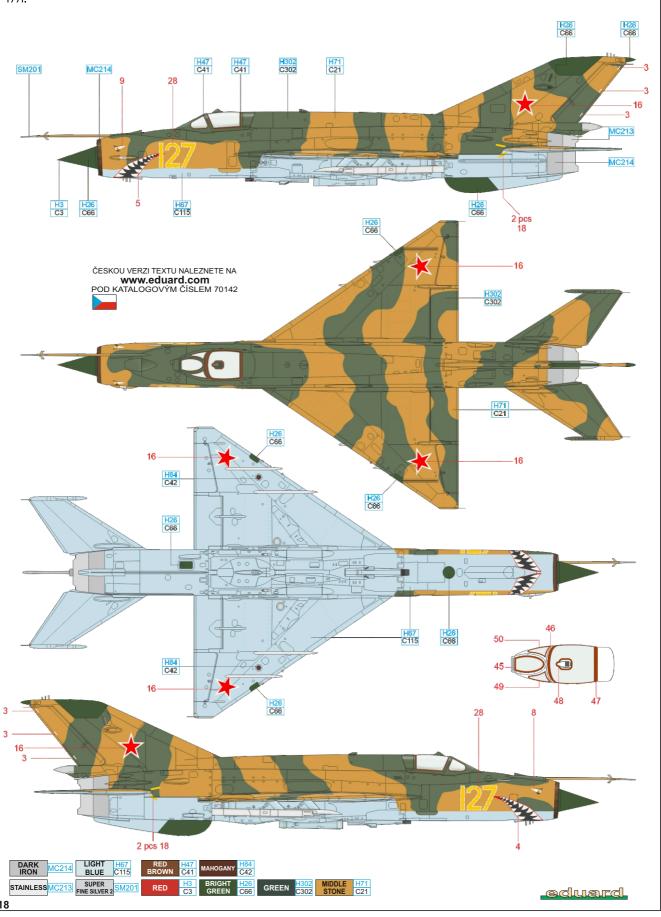
## No. 9712, 9 Fighter Regiment, Bechyně, Czechoslovakia, 1989 – 1993

This aircraft had the serial number 969712, and was built in 1974, and subsequently delivered to Czechoslovakia. It served with the 4 Fighter Regiment at Pardubice till May 1989, at which time it was transferred to the 9 Fighter Regiment. Here, it flew with the Bechyně coat of arms on the left side of the nose. After the Velvet Divorce, this aircraft was assigned to the Slovak Air Force, and is currently in the collection of the air museum at Trenčín, Slovakia. The aircraft carries a camouflage scheme as originally delivered from the Soviet Union.



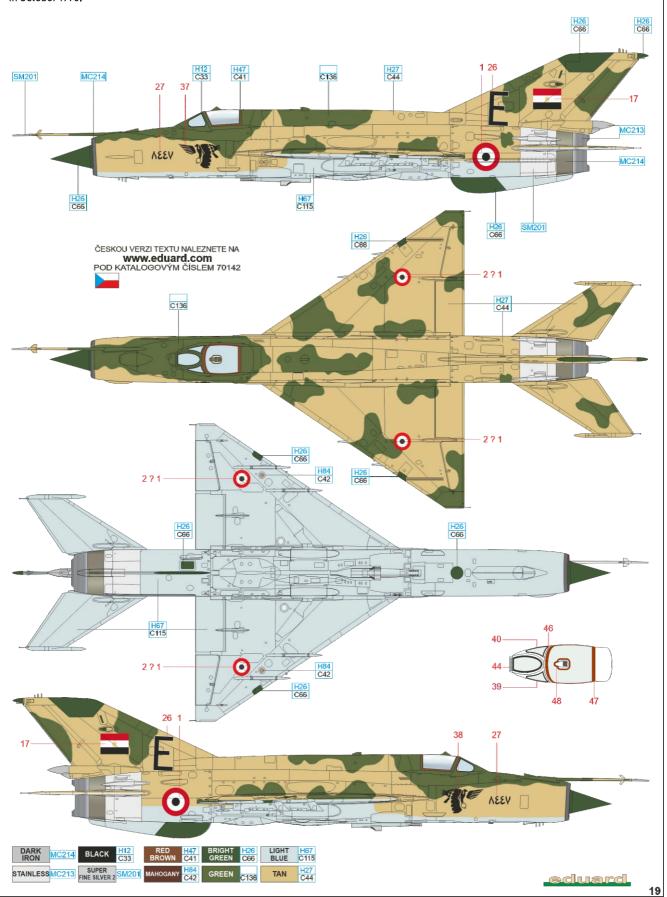
# No. 127, 812 Training Air Regiment, Kharkov Higher Military Aviation School of Pilots, Kupyansk Airfield, Soviet Union, August 1991

This aircraft, adorned with a sharkmouth and eyes, served with the 812. UAP (812 Training Air Regiment) operating within the structure of the Kharkov higher training facility. This was one of the aircraft that were displayed for the leadership during the open house on August 18, 1991



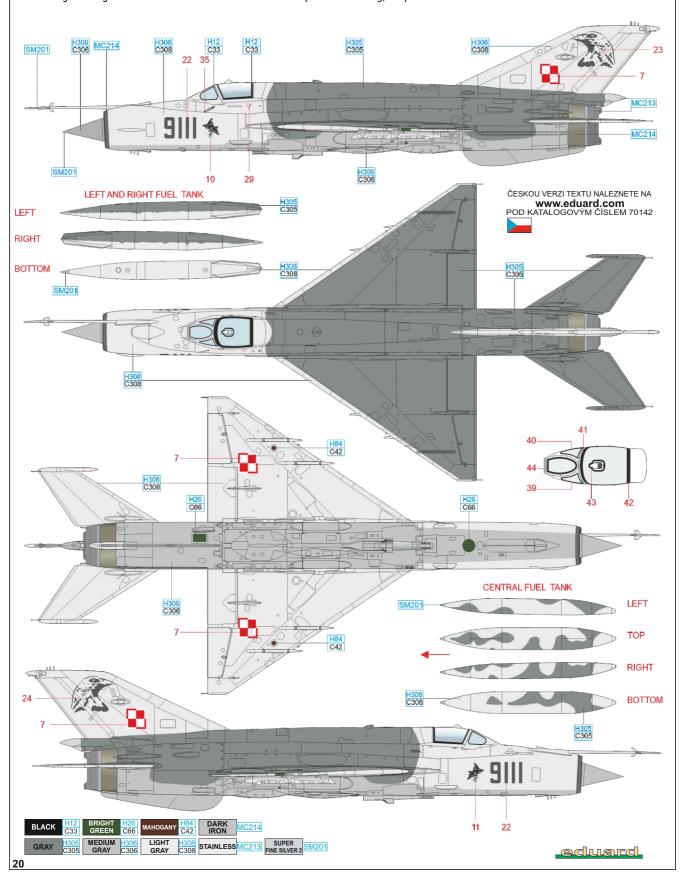
### No. 8447, No. 46 Squadron, Egypt, 1973

This is an aircraft from No. 46 Squadron as it appeared during combat exercises prior to the Yom Kippur War in 1973. For the purposes of quick identification, aircraft carried a large black, outlined in white, letter on the fin. The nose carries a rendering of the goddess Nekhbet, protector of Upper Egypt. Aircraft coded 8447 survived the Yom Kippur War and was photographed in this guise at Cairo in October 1975.

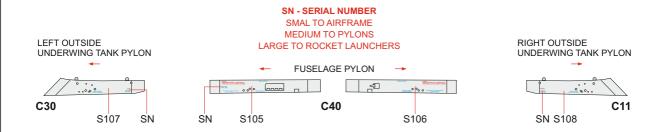


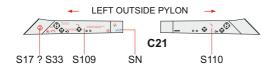
### No. 9111, 3 Eskadrą Lotnictwa Taktycznego, Poznań - Krzesiny, Poland, 2002

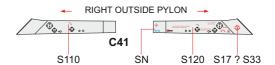
The 3 ELT was formed on January 1, 2001 at Poznan – Krzesiny and was equipped with MiG-21MF, bis and UM aircraft. The unit only used the MiG-21MFs for two years, ending their use in 2002. The bis version was flown by the pilots of the 3 ELT until 2003 when it was decided to re-equip the unit with American F-16s. On April 1, 2008, the 3 ELT, 6 ELT and the 31 Baze Lotnicza were disbanded and the 31 Baza Lotnictwa Taktycznego (31' tactical Air Base) was formed. Since 2007, this aircraft has been displayed at Poznan – Krzesin. The aircraft is camouflaged in shades of grey that is used on F-15s and F-16s. The raven's head marking on the fin hails from 2002 on the occasion of a CO's gathering in Berlin. Below the windscreen is the 3 Squadron marking, the predecessor of the 3 ELT.

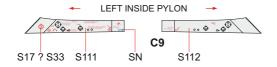


# MiG-21MF

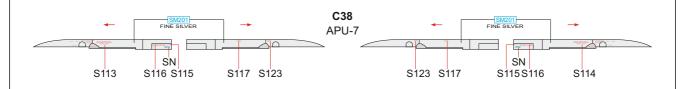




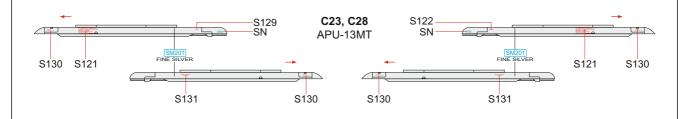




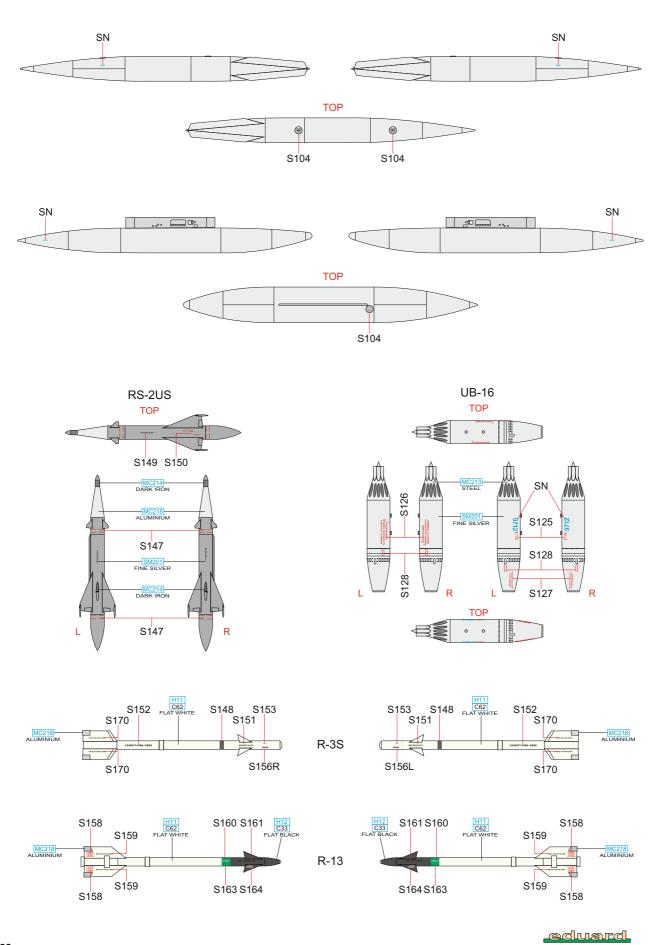








# MiG-21MF



# MiG-21MF

