# MiG-21R

## 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. This tiny interceptor or fighter-bomber played remarkable role in many wars and local conflicts from sixties to eighties, allowing many pilots to achieve their ace combat status.

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. 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. 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.

#### 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. 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. 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.

#### Aces from all over the world

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. The top of the ladder is occupied by Nguyen Ven Coc with nine kills, followed by three eight-victory aces: Mai Van Cuong, Nguyen

Hong Nhi and Pham Thanh Ngan. All of them served with 921st Air Regiment and were flying their missions with the MiG-21PF or PFM variants. 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.

#### The kit: MiG-21R

The MiG-21R was a dual-purpose tactical reconnaissance and interceptor aircraft developed from the PFM version. It was designed for photo-reconnaissance tasks from medium and high altitudes and was also capable to detect enemy radar positions in all weather conditions. The MiG-21R was to replace already obsolete Il-28R, Yak-27R and MiG-19R reconnaissance aircraft. Therefore, in October 1963, OKB MiG was tasked to develop a design for a reconnaissance modification of the MiG-21PFS interceptor.

The main change of the new version was the provision and necessary equipment to carry newly developed reconnaissance containers. Furthermore, the forward fuselage tank No. 1 was removed and a significantly enlarged tank (510 litres instead of 170 litres) was installed in the larger and bulkier fuselage ridge. This change increased the total amount of fuel carried in the internal tanks to 2,800 litres. The wing was strengthened, and an additional pair of underwing racks were fitted. Additional PTB-490 tanks or selected armament could be carried on the outer racks. In terms of equipment, the original single-channel autopilot was replaced by a three-channel unit (AP-155) and the SPO-3R Sirena-3 warning system was installed. The canopy was fitted with a TS-27AMS periscope for better rear view (all aircraft manufactured after 1969).

Three containers with different reconnaissance equipment were prepared for the new MiG-21R. Type D contained cameras for daytime photo reconnaissance, container type N was capable of night photo reconnaissance (in combination with a flare dispenser) while type R was equipped for radio-electronic reconnaissance. The MiG-21R thus became the first Soviet aircraft capable of performing both types of tasks: photographic reconnaissance (FOTINT) and electronic reconnaissance (ELINT). With the reconnaissance container removed, the MiG-21R was a full-blown frontline fighter or fighter-bomber.

The No. 21 plant in Gorky was tasked with production of MiG-21R and 448 of these aircraft were produced there between 1965 and 1971. The last series aircraft were produced as the MiG-21RF, which received the more powerful R-13-300 engine from the MiG-21SM/MF version.





? **OPTIONAL** VOI BA

 $(\mathbf{f})$ BEND OHNOUT SAND

**BROUSIT** 

**OPEN HOLE** 

VYVRTAT OTVOR

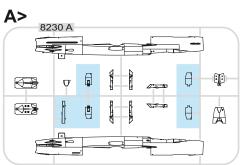
SYMETRICAL ASSEMBLY SYMETRICKÁ MONTÁŽ

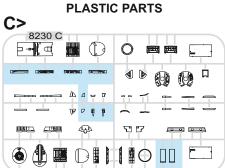
REMOVE **ODŘÍZNOUT** 

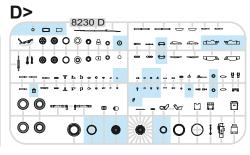
(2) REVERSE SIDE OTOČIT

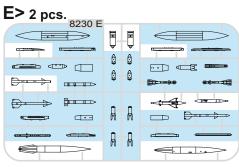
APPLY EDUARD MASK AND PAINT POUŽÍT EDUARD MASK NABARVIT

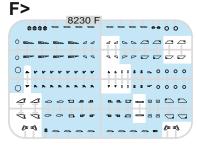




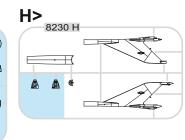


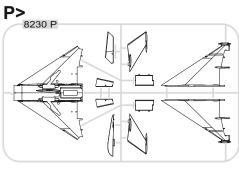


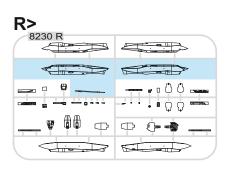
















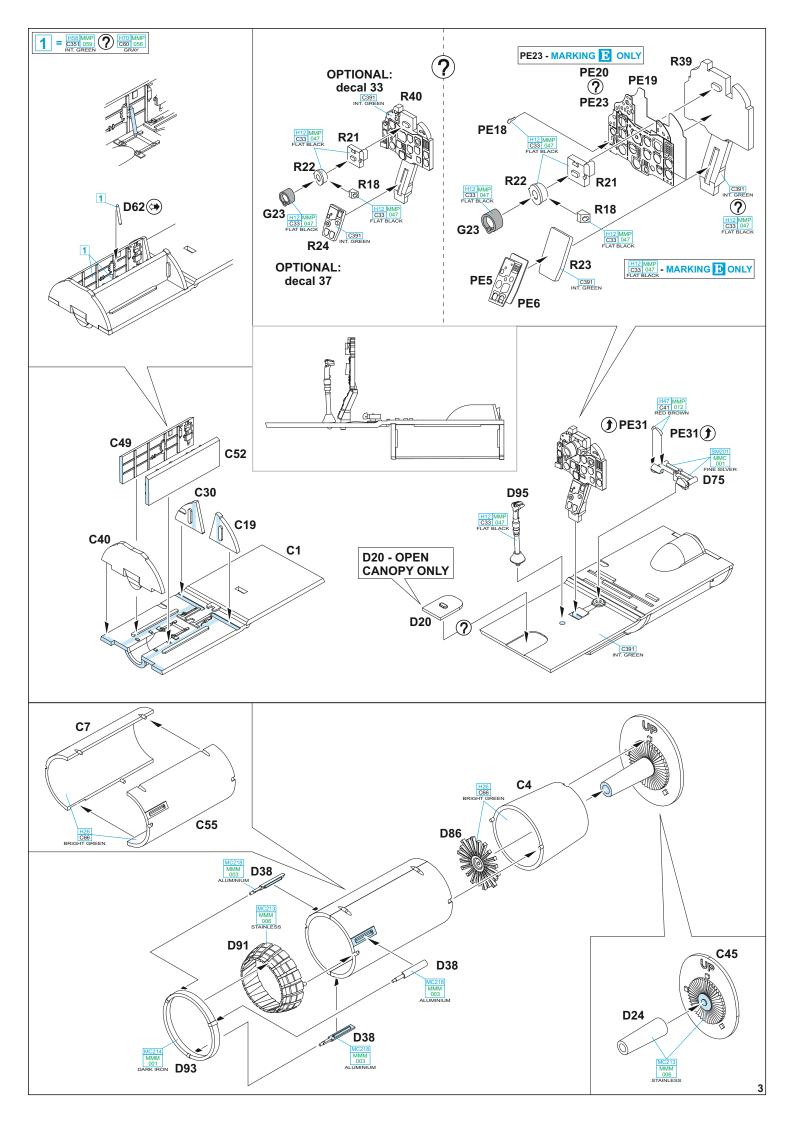


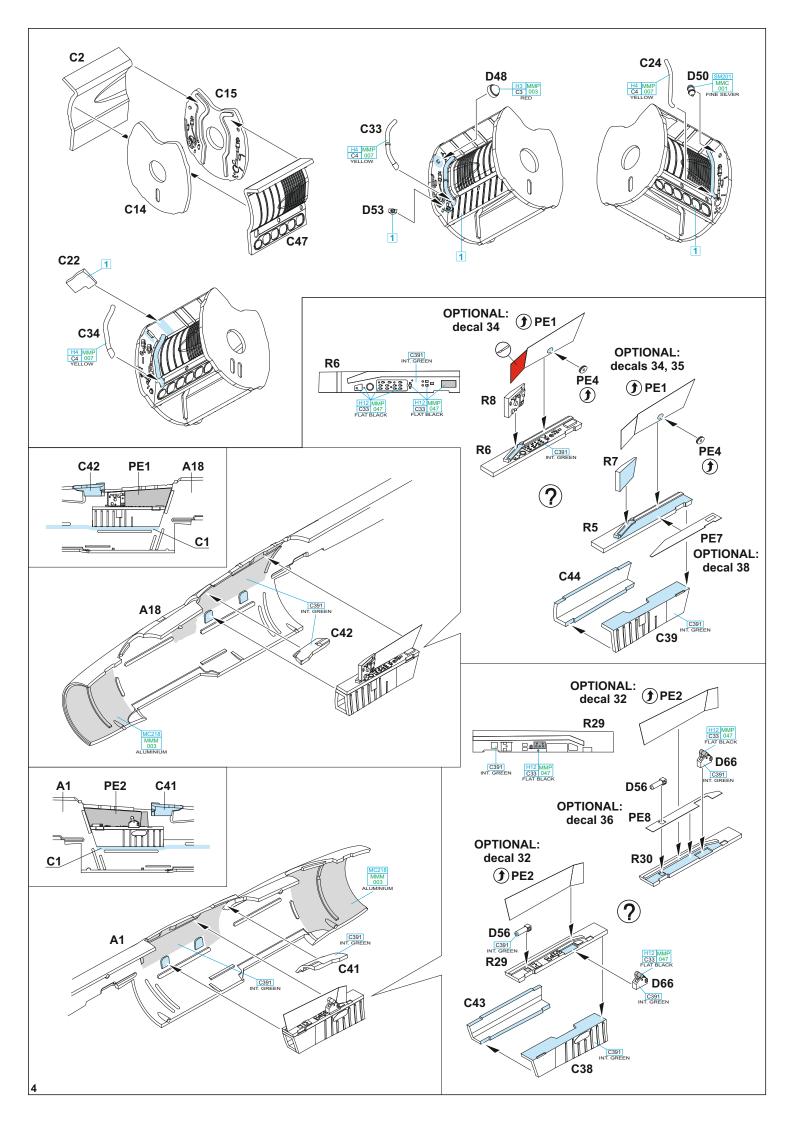
-Parts not for use. -Teile werden nicht verwendet. -Pièces à ne pas utiliser. -Tyto díly nepoužívejte při stavbě. - 使用しない都品

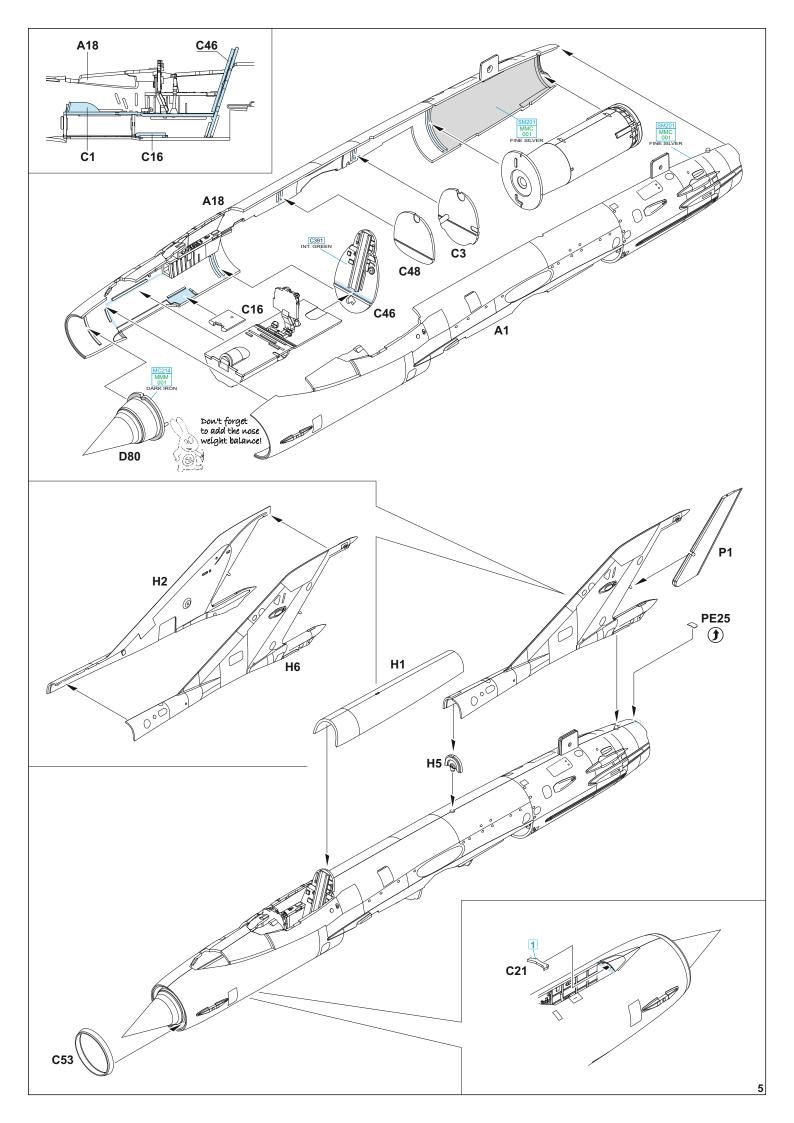
**COLOURS PEINTURE BARVY FARBEN** 

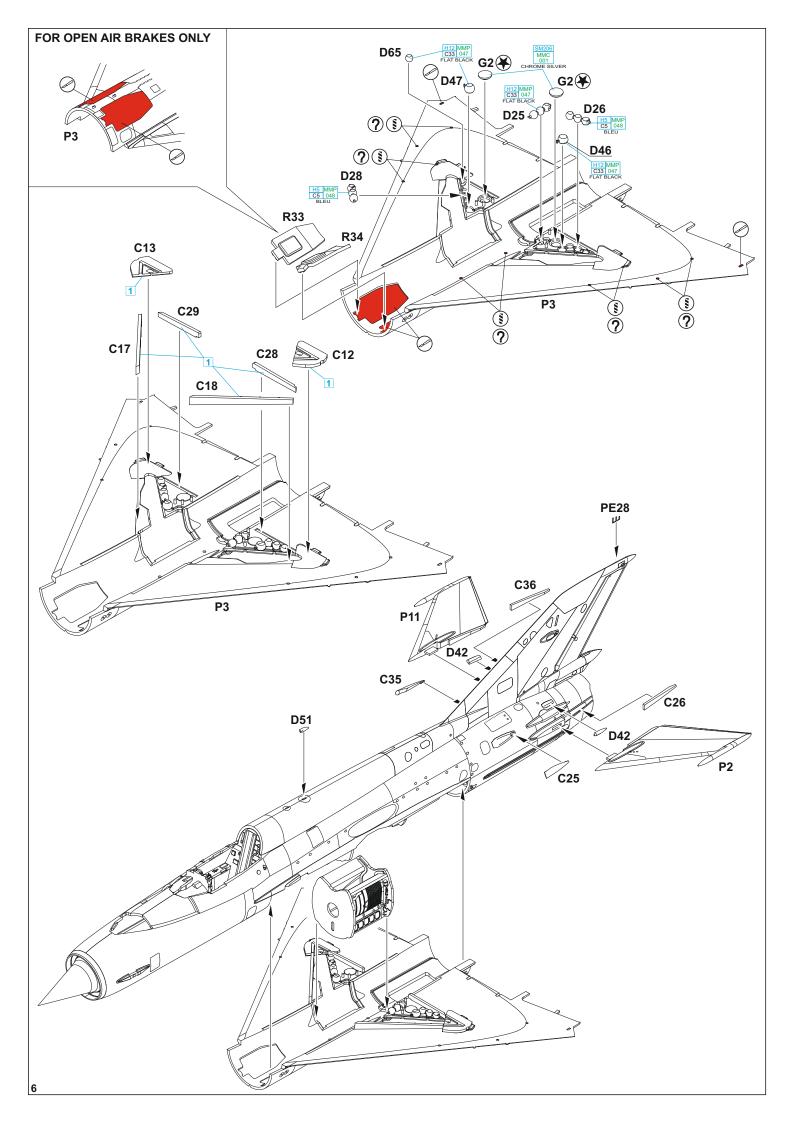
GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H1	C1	MMP-001	WHITE
H2	C2	MMP-047	BLACK
H3	C3	MMP-003	RED
H4	C4	MMP-007	YELLOW
H5	C5	MMP-048	BLUE
H12	C33	MMP-047	FLAT BLACK
H15	C65		BRIGHT BLUE
H26	C66		BRIGHT GREEN
H27	C44		TAN
H37	C43		WOOD BROWN
H47	C41	MMP-012	RED BROWN
H51	C11	MMP-063	LIGHT GULL GRAY
H53	C13		NEUTRAL GRAY
H58	C351	MMP-059	INTERIOR GREEN
H65	C18	MMP-088	BLACK GREEN
H67	C115	MMP-057	LIGHT BLUE
H70	C60	MMP-056	GRAY
H77	C137	MMP-040	TIRE BLACK

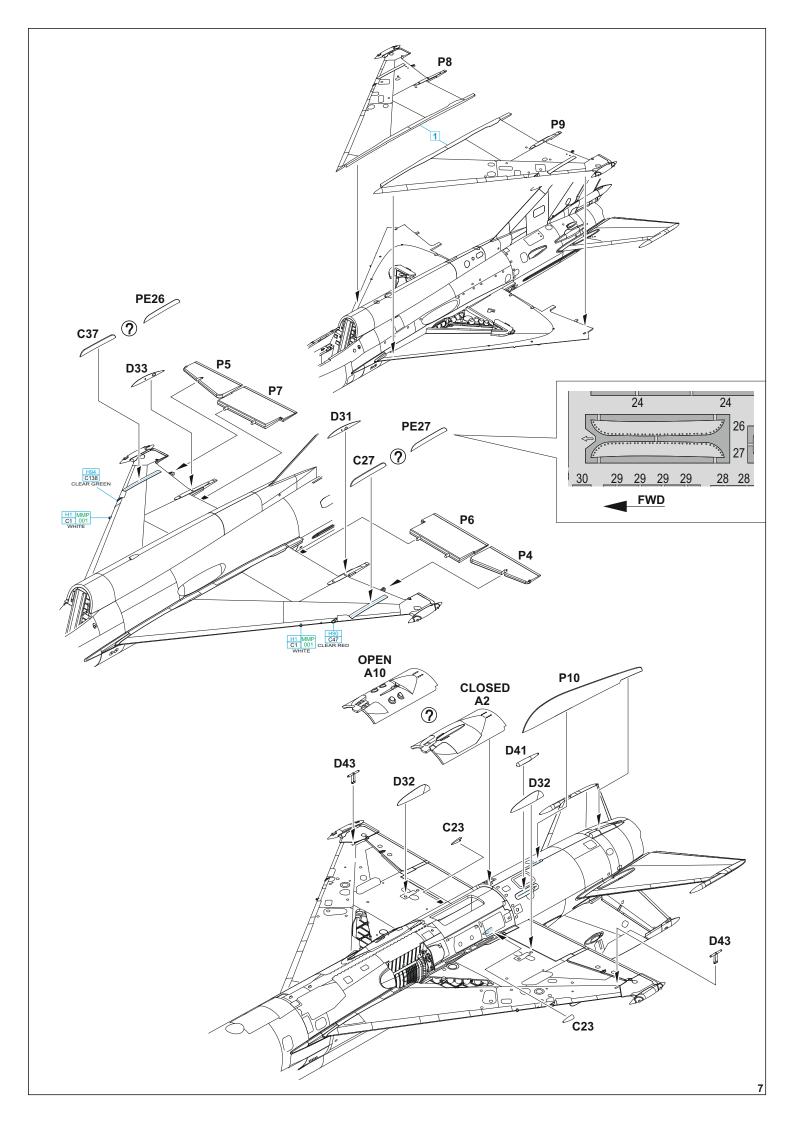
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GSi Creos (GUNZE)		MISSION MODELS	
AQUEOUS	Mr.COLOR	PAINTS	
H84	C42		MAHOGANY
H90	C47		CLEAR RED
H94	C138		CLEAR GREEN
H302	C302		GREEN
H303	C303	MMP-066	GREEN
H314	C314		BLUE
H323	C323	MMP-092	LIGHT BLUE
H324	C324	MMP-116	LIGHT GRAY
H332	C332		LIGHT AIRCRAFT GRAY
H422	C122	MMP-053	LIGHT GREEN
	C391		INTERIOR GREEN
Mr.META	Mr.METAL COLOR		
MC213		MMM-006	STEEL
MC214		MMM-001	DARK IRON
MC218		MMM-003	ALUMINIUM
Mr.COLOR SUPER METALLIC		METALLICS	
SM201		MMC-001	SUPER FINE SILVER 2
SM206		MMC-001	SUPER CHROME SILVER 2

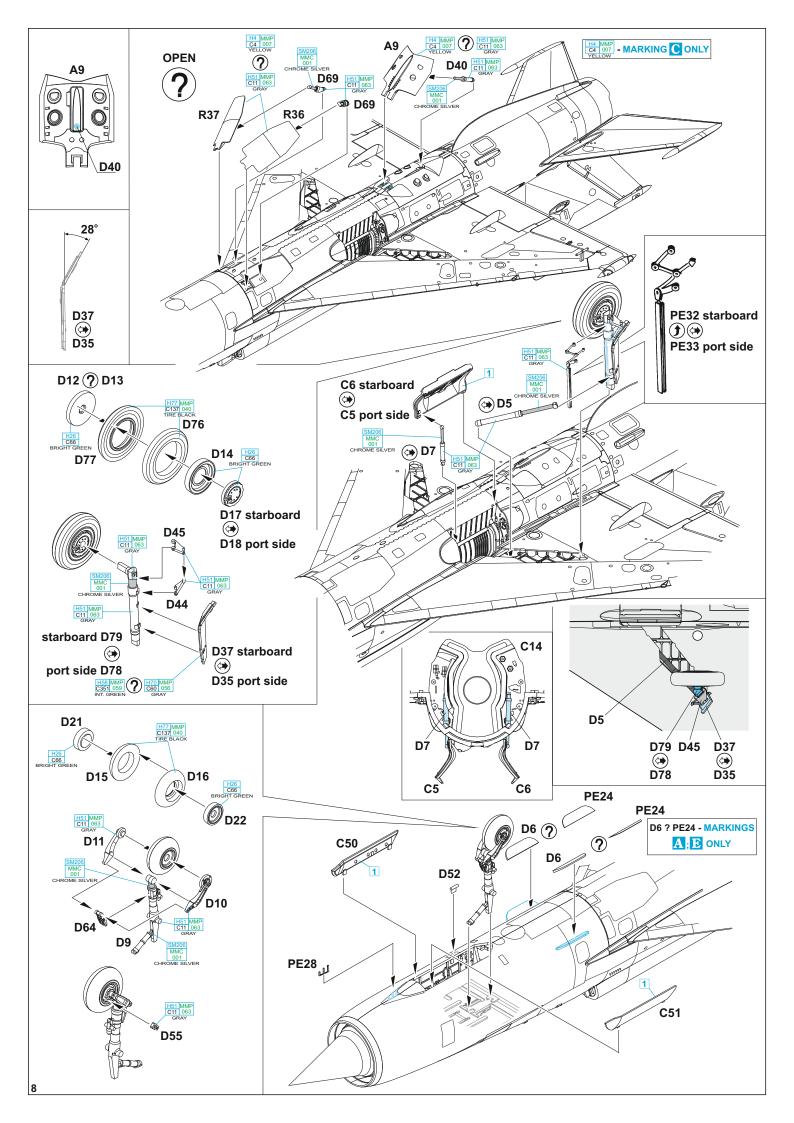


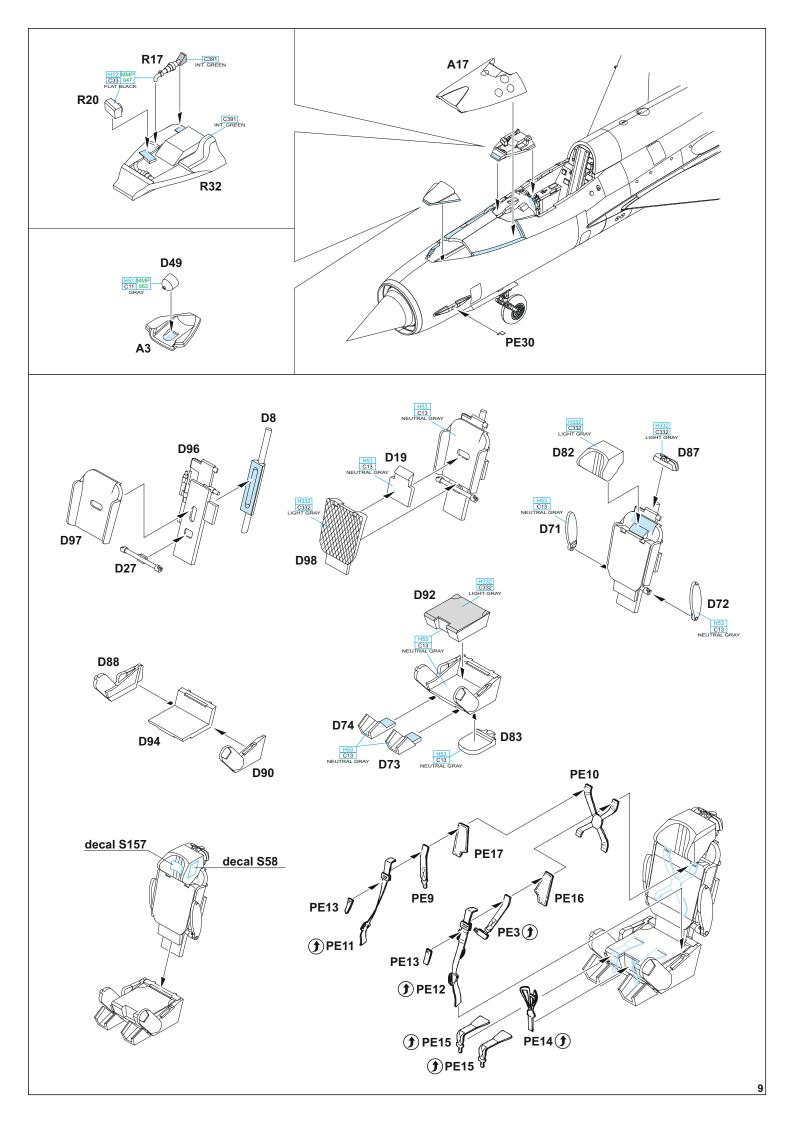


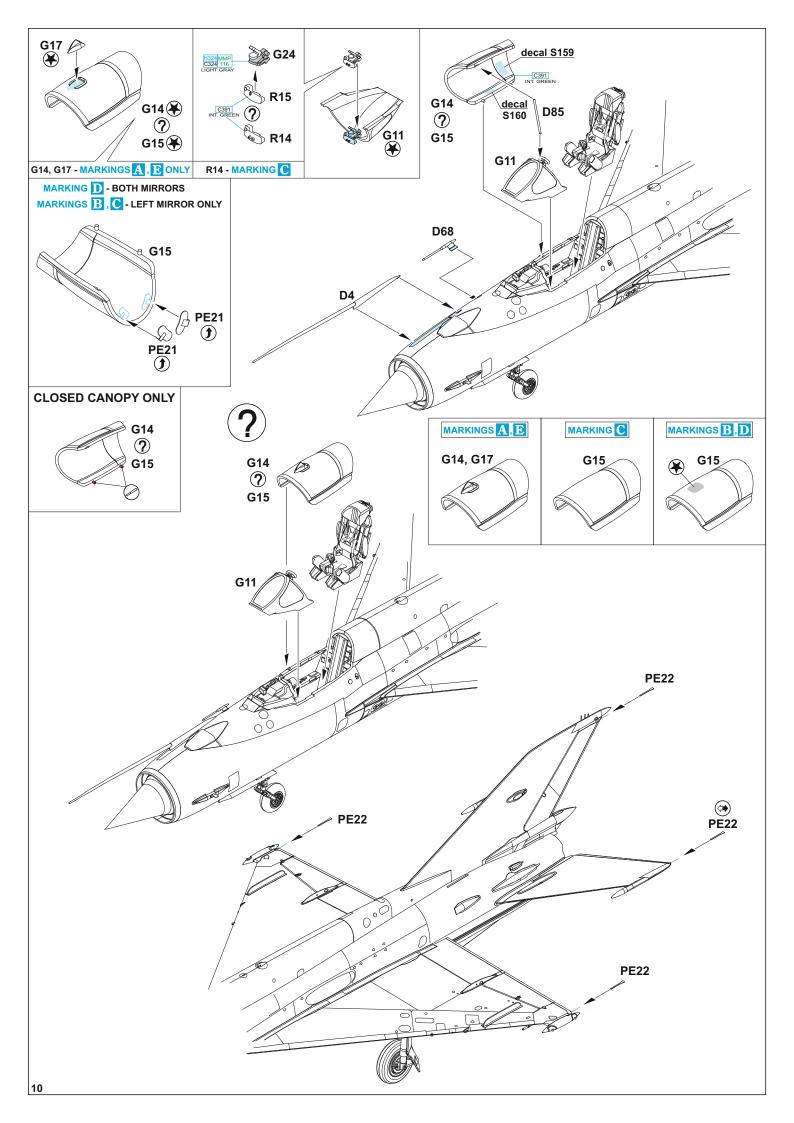


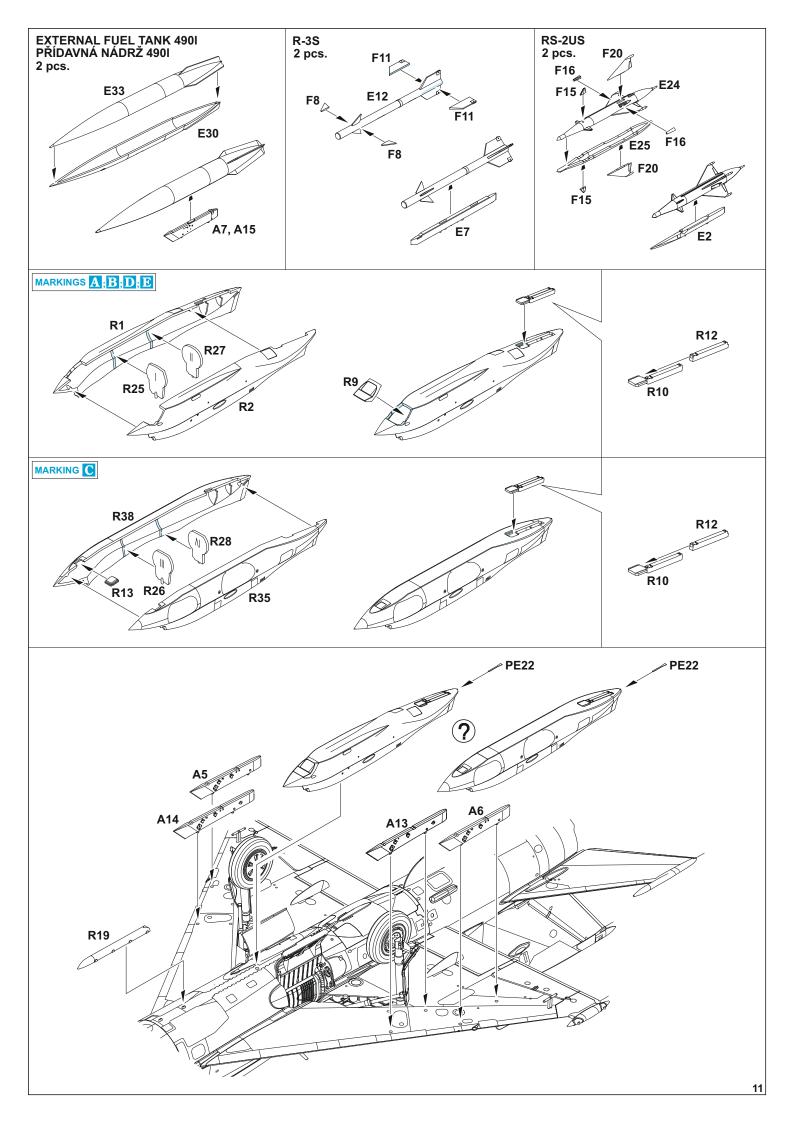


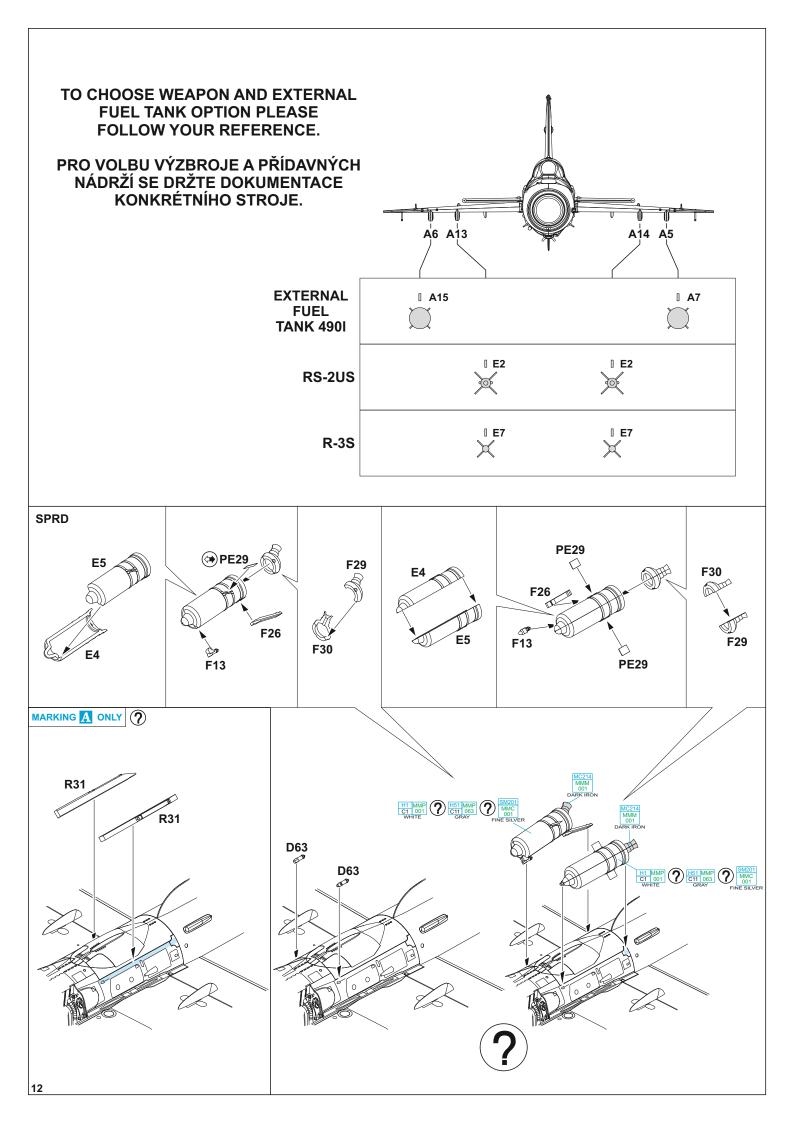


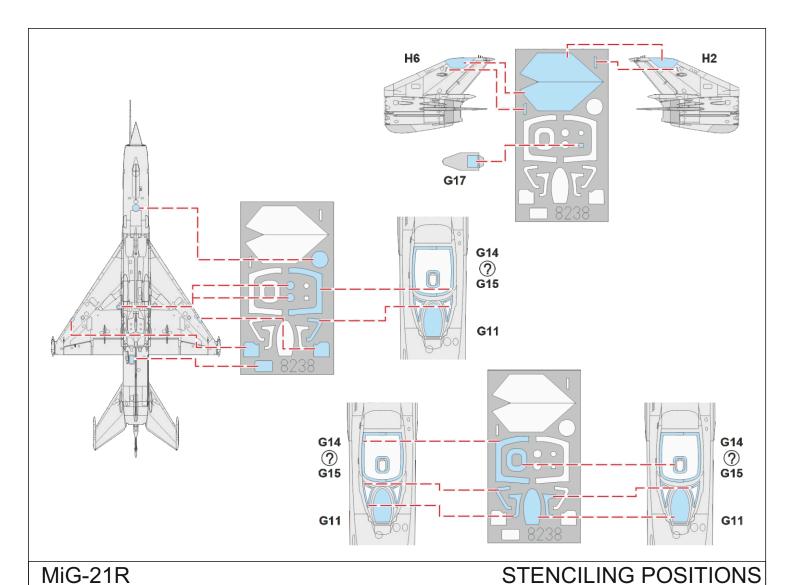


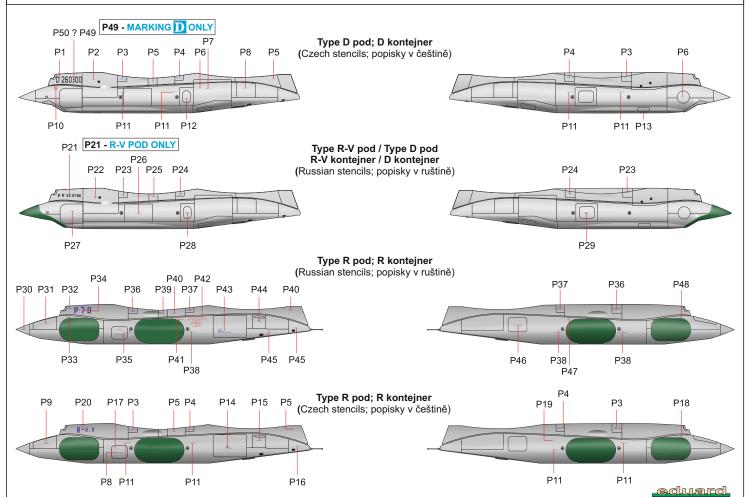


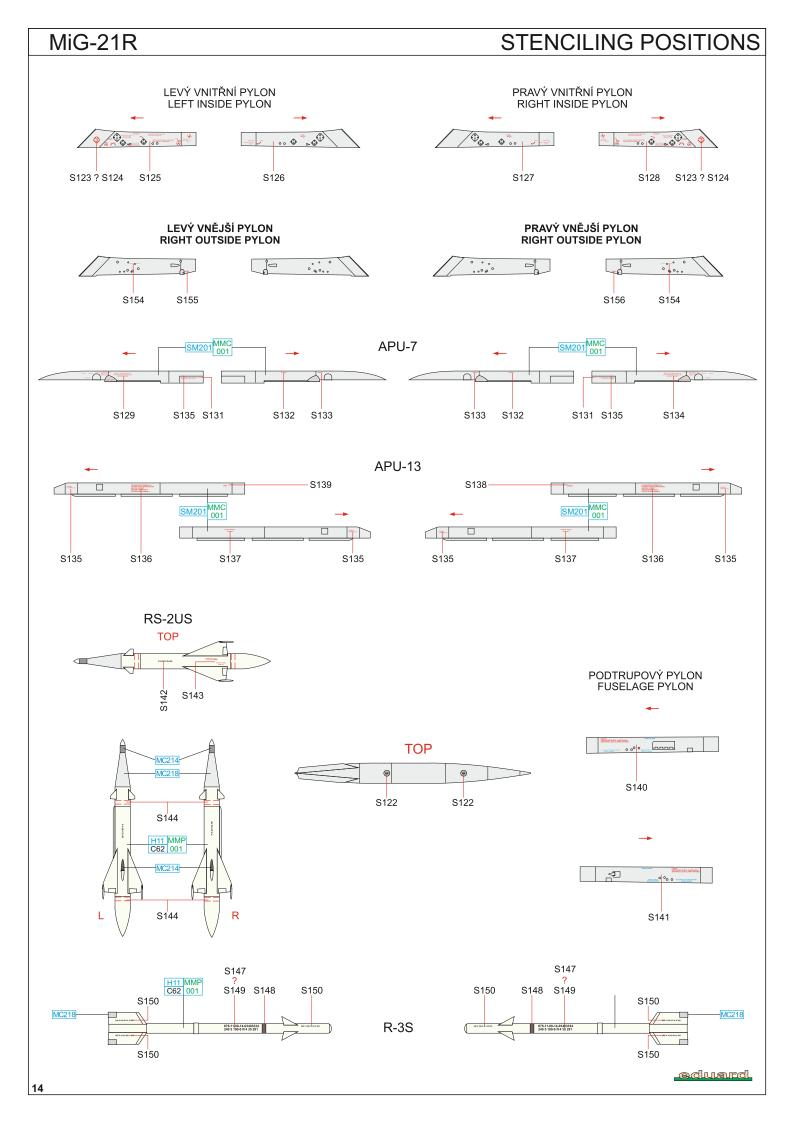












### A 263<sup>rd</sup> Independent Reconnaissance Air Squadron, Soviet Air Force, Kabul Airfield, Afghanistan, 1981

Following the Soviet invasion of Afghanistan, recce aircraft appeared at local airfields. The  $263^{rd}$  Independent Reconnaissance Air Squadron (ORAE) moved to Afghanistan in early January 1980 and found its home at Bagram and Kandahar air bases. The squadron began to fly their aircraft from Kabul in late April 1980 and stayed there till 1984. The depicted MiG-21R was one of the recce aircraft that operated from this air base. The camouflage scheme was  $created to \, match the appearance of the local landscape. \, Many \, Soviet \, aircraft \, flown \, in \, Afghanistan \, were \, equipped \, with \, chaff \, and \, flare \, dispensers. \, These \, could \, dispense \, for all the local landscape and \, flare \, dispense \, for all the local landscape and \, flare \, dispense \, for all the local landscape and \, flare \, dispense \, for all the local landscape and \, flare \, dispense \, for all the local landscape and \, flare \, flar$ be carried by this specific aircraft as well, however this are not visible in photographs. ČESKOU VERZI TEXTU NALEZNETE NA www.eduard.com POD KATALOGOVÝM ČÍSLEM 8238 H26 C66 H26 C66 26 H47 MMF C41 012 H422 MMP C122 053 H65 MMP C18 088 H37 C43 H27 C44 MC213 MMM 006 MC214 MMM 001 H26 C66 H84 C42 SM201 MMC 001 SM201 MMC 001 MC213 MMM 006 H314 C314 H26 H26 C66 H422 MMP C122 053 H37 C43 H422 MMP C122 053 H65 MMP C18 088 H27 H26 C66 MC214 MMM 001 MC213 MMM 006 H65 MMP C18 088 SM201 MMC 001 H422 MMP C122 053 H37 C43 SM201 MMC 001 SM201 MMC 001 H26 C66 0 MC214 MMM 001 MC213 MMM 006 H26 C66 H26 C66 26 H3 MMP C3 003 H26 C66 28 SM201 MMC H26 C66 SUPER SM201 MMC 001 SM201 MMC 001 C213 MMM

BROWN H37 GRWEEN H65 MMP C18 088

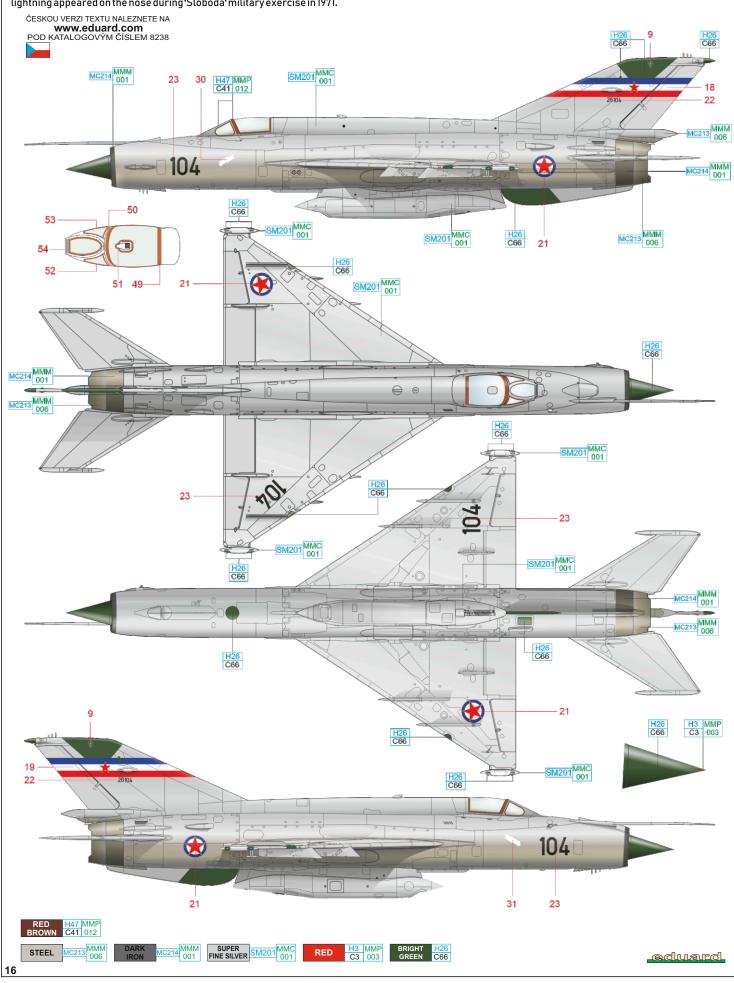
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C214 MMM 001

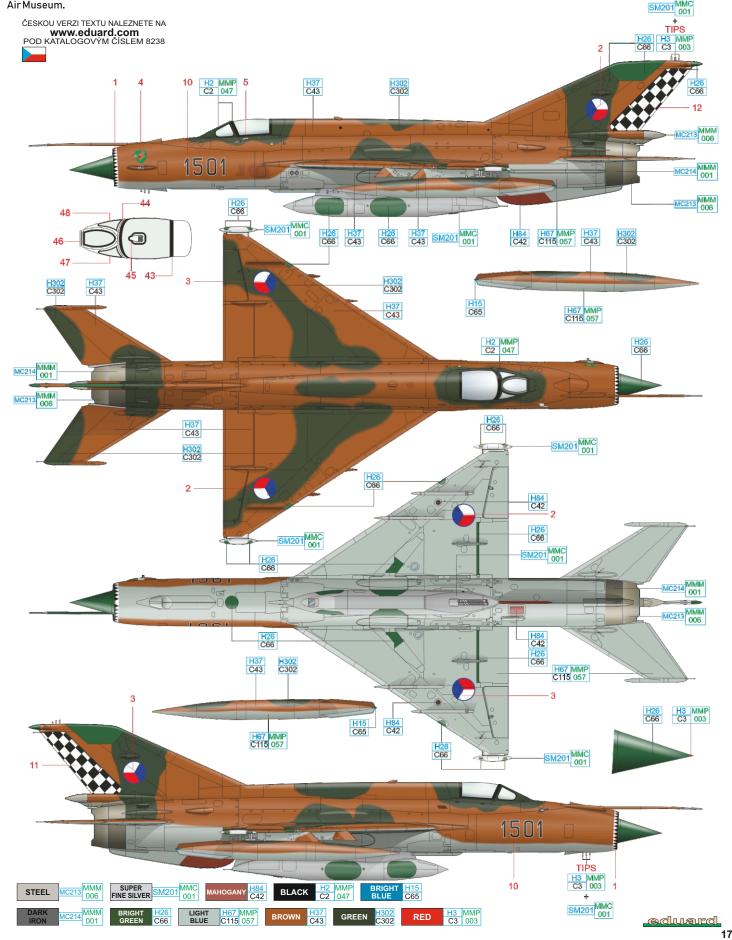
## **B** 353<sup>rd</sup> Reconnaissance Air Squadron, Yugoslav Air Force, Zelyava Air Base, Yugoslavia, 1971

The Yugoslav Air Force purchased a dozen MiG-21Rs from the Soviet Union. These were delivered either in 1968 or 1969 and served under the local type designation L-14I. The first user of Aircraft 26104 was the  $126^{th}$  Reconnaissance Squadron that flew all of the Yugoslav MiG-21Rs. This Squadron was a part of the  $204^{th}$  Fighter Air Regiment. The next users of this aircraft were the  $352^{td}$  and  $353^{td}$  Reconnaissance Squadrons prior to being scrapped at Kraljevo. The white lightning appeared on the nose during 'Sloboda' military exercise in 1971.



### C Air Test Department, Czech Air Force, Caslav Air Base, Czechoslovakia, 1994

The appearance of the MiG-21R No. 1501 (s/n 94R001501) changed many times during its service in the Czechoslovak and Czech Air Force. Delivered in natural metal finish, it served in that form until general overhaul when a green and brown camouflage was applied. The black and white checkerboard on the rudder and triangles on the nose were painted afterwards. The aircraft was delivered to Czechoslovakia in January 1969 and was flown by the 47th Reconnaissance Air Regiment till 1993. In 1994, after overhaul, it was flown by the 28th Fighter-Bomber Air Regiment for a short period and then used by the Air Test Department (also known as 'Stress Flight') during late 1994 and 1995. The 47th Recce Air Regiment unit badge – a jackal head – is painted on the port side of the nose. The nickname of ground personnel member DOKTOR is painted on the canopy frame. Currently, the aircraft is preserved in Prague-Kbely Air Museum.



## D 32<sup>nd</sup> Tactical Reconnaissance Air Regiment, Polish Air Force, Sochaczew-Bielice Air Base, Poland, early 1980s

MiG-21R s/n 94R011423 was delivered to Poland on September 29, 1968, along with another 'R'. These two examples were the first MiG-21Rs to arrive in Poland. The '1423' was flown by the 41st Fighter Air Regiment based at Malbork Air Base. In a very short period of time, on July 8, 1969, the aircraft was overhanded to the 21st Tactical Reconnaissance Air Regiment and moved to Sochaczew. From December 1982 it entered the inventory of the 2nd Squadron, 32nd Tactical Reconnaissance Air Regiment. Service with this unit is symbolized by the squadron badge on the port side of the nose, while the starboard side sports the 32nd Tactical Reconnaissance Air Regiment unit hadge. This aircraft is preserved at the air museum in Drzonow in Poland.



### E Cuban Air Force, 1980s – 1990s

The Cuban Air Force obtained twelve MiG-21Rs in total. These were delivered from the Soviet Union and put into service in 1968. Aircraft No. 111 can be seen at the air museum in Havana. The green and blue camouflage scheme was recently seen on Cuban Air Force aircraft. The instrument panel of this MiG is painted black despite the specification calling for turquoise. Cuban MiG-21Rs were typically armed with two R-3S missiles mounted along with recce pod and two external 490l fuel tanks.

