

Mikoyan-Gurevich MiG-17



The Mikoyan-Gurevich MiG-17 was an early jet interceptor and day fighter, with limited capability as a fighter-bomber.

Versions

MiG-17

The MiG-17 day fighter was based on the MiG-15bis, but had a thinner but stiffer wing and tail surfaces for better control at higher Mach number and a longer fuselage, but retained conventional elevators. It maintained the Klimov VK-1A non-afterburning engine and the heavy armament of the MiG-15bis. The NATO reporting name is Fresco-A.

The MiG-17 entered service with the Soviet VVS in 1952. It was subsequently widely exported to dozens of Soviet allies, including notably the Chinese PLAAF and PLAN, the North Korean KPAF (after the Korean War), the North Vietnamese VPAF, the Egyptian and Syrian Air Forces.

MiG-17F

The MiG-17F had a VK-1F afterburning engine but was otherwise almost identical to the MiG-17. The afterburner gave a dramatic improvement in climb rate, which was important in an interceptor. The MiG-17F was the first Soviet operational aircraft to be equipped with an afterburner. The NATO reporting name is Fresco-C.

The Polish PZL-Mielec Lim-5 and Chinese Shenyang J-5/F-5 were licensed versions of the MiG-17F.

The MiG-17F entered service with the Soviet VVS in 1953. Like the preceding MiG-17, it was subsequently widely exported to dozens of Soviet allies, including notably the Chinese PLAAF and PLAN, the North Korean KPAF (after the Korean War), the North Vietnamese VPAF, the Egyptian and Syrian Air Forces.

MiG-17P

The MiG-17P all-weather interceptor was derived from the original MiG-17 and the prototype MiG-15P. It had an RP-1 Izumrud (Scan Odd) radar mounted in front of the air intake and kept the non-afterburning engine. The NATO reporting name is Fresco-B.

The MiG-17P entered service with the Soviet PVO and AV MF in 1953.

MiG-17PF

The MiG-17PF all-weather interceptor was a development of the MiG-17P. It gained the VK-1F afterburning engine and had an armament of three NR-23 guns. The NATO reporting name is Fresco-D.

The Polish PZL-Mielec Lim-5P and Chinese Shenyang J-5A/F-5A were licensed versions of the MiG-17PF.

The MiG-17PF served with the Soviet PVO from 1953. It also served with the Bulgarian Air Force, the Chinese PLAAF (both as original versions and as J-5As), the Hungarian Air Force, and the Polish Air Force (from 1955).

MiG-17PFU

The MiG-17PFU all-weather interceptor was a further development of the MiG-17PF. The major change was the replacement of the gun armament with four Kalingrad K-5 (AA-1 Alkali) BRMs guided by the RP-2 Izumrud radar. The NATO reporting name was Fresco-E.

The MiG-17PFU served with the Soviet PVO from 1956.

Armament and Stores

The primary air-to-air armament of the MiG-17 was its cannon. The K-13 (AA-2 Atoll) IRM became available in 1961, but it was not widely used as by then the MiG-17 was typically transitioning to a ground-attack role. The MiG-17PFU was armed with Kalingrad K-5 (AA-1 Alkali) BRMs.

To counter its short endurance, the MiG-17 could use 250, 300, 400, or 600 liter fuel tanks on its under-wing stations. The 600 liter tanks reduced maneuverability. It could also be armed with 250 kg bombs or, from 1955, with ORO-57 rocket pods each with eight 57 mm rockets.

Combat

A number of US reconnaissance flights were shot down by PVO MiG-17P/PFs between 1953 and 1970.

Chinese PLAAF MiG-17s clashed with ROCAF F-86s in the Second Taiwan Strait Crisis in 1958. They also intercepted

ROCAF reconnaissance flights over mainland China.

From 1965 to 1972, the MiG-17/17F saw combat with the VPAF in the Vietnam War, initially embarrassing much more modern adversaries with its small size, maneuverability, and cannon armament. The MiGs were largely used as interceptors, but in 1972 two attacked USS Higbee and USS Oklahoma City as they carried out a naval gunfire support mission.

During the 1967 War, the War of Attrition, and the 1973 War, Egyptian and Syrian MiG-17/17F aircraft served in a ground-attack role.

In the late 1960s and the 1970s, MiG-17/17Fs were widely used in ground-attack roles as governments in Africa and Asia countered insurgencies.

ADCs

- MiG-17
- MiG-17F
- MiG-17P
- MiG-17PF
- MiG-17PFU

See Also

- Shenyang J-5 and F-5

Photo Credit

- MiG-17: Balon Greyjoy (Public Domain)

MiG-17										Crew: Pilot								
										Maneuver HFPs/DPs:								
Power APs/DPs/FPs: ○										LR/DR	1.0	1.5						
										VR	0.5							
					Turn DPs:					CL	1/2	DT						
					TT	0.0		0.0	1.0									
					HT	1.0		1.0	1.0									
					BT	2.0		2.0	3.0									
					ET	3.0		3.0	—									
					No lag or displacement rolls if speed ≥ 5.0.													
Speeds and Ceilings																		
Alt. Band	Conf. Ceil.	CL 54	1/2 50	DT 46	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band									
EH+	46+	3.0 – 6.0	3.0 – 5.5	3.5 – 5.0	6.5	— 0.5	— 0.5	— 0.5	EH+									
VH	36–45	2.5 – 6.0	3.0 – 5.5	3.0 – 5.0	6.5	— 0.5	— 0.5	— 0.5	VH									
HI	26–35	2.0 – 6.0	2.5 – 6.0	2.5 – 5.5	7.0	— 0.5	— 0.5	— 0.5	HI									
MH	17–25	1.5 – 6.5	2.0 – 6.0	2.0 – 5.5	7.0	— 1.0	— 0.5	— 0.5	MH									
ML	8–16	1.0 – 7.0	1.5 – 6.5	1.5 – 5.5	7.5	— 1.0	— 1.0	— 0.5	ML									
LO	0–7	1.0 – 6.5	1.5 – 6.0	1.5 – 5.5	7.5	— 1.0	— 1.0	— 1.0	LO									
Radar: —					ECM: IFF	Weapon Stations Diagram:												
ECCM: —					RWR: —													
Arcs: —					DDS: —													
Search: —					DJM: —													
Track: —					AJM: —													
Lock-On: —					BJM: —													
Guns: Two 23 mm NR-23 One 37 mm N-37					Technology: None	Load Point Limits: CL : 0–2 1/2: 3–4												
To Hit: 4/2/1					Weight Limit: 2,500 DT : 5+													
Ammunition: 3.0					Station Limit Allowed Loads													
Gunsight: TT+0/HT+2/BT+3					1 and 2 700 BB RK RP FT IRM													
Ranging: —					Load Notes:													
AtA/AtG: 5/4					1. May use 250L, 300L, 400L, or 600L FTs. As an exception to the normal rules for load limits, 600L tanks can be carried, but the turn rate is limited to BT. 2. From 1961, may use AA-2 IRMs.													
Bomb System: Manual																		
Notes:																		
1. The Mikoyan-Gurevich MiG-17 is a day fighter. It is a development of the MiG-15bis, with new wings and tail surfaces and a modified fuselage. It uses the non-afterburning VK-1A engine. The NATO reporting name for the aircraft is Fresco-A. 2. High transonic drag (HTD). Low roll rate (LRR) if speed ≥ 4.0.																		
VPs: 11/7/4/2										v1.0000000 0000-00-00T00:00:00								

MiG-17F										Crew: Pilot																		
										Maneuver HFPs/DPs:																		
Power APs/DPs/FPs: ○										LR/DR	1.0	1.5																
CL 1/2 DT Fuel										VR	0.5																	
AB	2.5	2.0	2.0	3.0						Turn DPs:																		
M	1.5	1.5	1.0	1.0						CL	1/2	DT																
N	0.0	0.0	0.0	0.5						TT	0.0	0.0	1.0															
I	0.5	0.5	1.0	0.0						HT	1.0	1.0	1.0															
SPBR	0.5	0.5	1.0	—						BT	2.0	2.0	3.0															
										ET	3.0	3.0	—															
										No lag or displacement rolls if speed ≥ 5.0.																		
Speeds and Ceilings						Climb Capabilities																						
Alt. Band	Conf. Ceil.	CL 54	1/2 50	DT 46	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band																			
EH+	46+	3.0 – 6.0	3.0 – 5.5	3.5 – 5.0	6.5	1.0 0.5	1.0 0.5	1.0 0.5	EH+																			
VH	36–45	2.5 – 6.0	3.0 – 5.5	3.0 – 5.0	6.5	1.0 0.5	1.0 0.5	1.0 0.5	VH																			
HI	26–35	2.0 – 6.0	2.5 – 6.0	2.5 – 5.5	7.0	1.5 0.5	1.0 0.5	1.0 0.5	HI																			
MH	17–25	1.5 – 6.5	2.0 – 6.0	2.0 – 5.5	7.0	1.5 1.0	1.5 0.5	1.0 0.5	MH																			
ML	8–16	1.0 – 7.0	1.5 – 6.5	1.5 – 5.5	7.5	2.0 1.0	1.5 1.0	1.5 0.5	ML																			
LO	0–7	1.0 – 6.5	1.5 – 6.0	1.5 – 5.5	7.5	2.0 1.0	2.0 1.0	1.5 1.0	LO																			
Radar: —		ECM: IFF	Weapon Stations Diagram:																									
ECCM: —		RWR: —																										
Arcs: —		DDS: —																										
Search: —		DJM: —																										
Track: —		AJM: —																										
Lock-On: —		BJM: —																										
Guns: Two 23 mm NR-23 One 37 mm N-37		Technology: None			Load Point Limits:																							
To Hit: 4/2/1					CL : 0–2 1/2: 3–4																							
Ammunition: 3.0					Weight Limit: 2,500																							
Gunsight: TT+0/HT+2/BT+3					DT : 5+																							
Ranging: —					Station Limit Allowed Loads																							
AtA/AtG: 5/4					1 and 2 700 BB RK RP FT IRM																							
Bomb System: Manual		Load Notes: 1. May use 250L, 300L, 400L, or 600L FTs. As an exception to the normal rules for load limits, 600L tanks can be carried, but the turn rate is limited to BT. 2. From 1961, may use AA-2 IRMs.																										
Notes:																												
1. The Mikoyan-Gurevich MiG-17F is a day fighter. It is a development of the MiG-17 and uses the afterburning VK-1F engine. The NATO reporting name for the aircraft is Fresco-C. 2. High transonic drag (HTD). Low roll rate (LRR) if speed ≥ 4.0.																												
VPs: 11/7/4/2										v1.0000000 0000-00-00T00:00:00																		

MiG-17P										Crew: Pilot					
										Maneuver HFPs/DPs:					
					LR/DR	1.0	1.5								
					VR	0.5									
					Turn DPs:										
					CL	1/2	DT								
					TT	0.0	0.0	1.0							
					HT	1.0	1.0	1.0							
					BT	2.0	2.0	3.0							
					ET	3.0	3.0	—							
					No lag or displacement rolls if speed ≥ 5.0.										
Speeds and Ceilings															
Alt. Band	Conf. Ceil.	CL 54	1/2 50	DT 46	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band						
EH+	46+	3.0 – 6.0	3.0 – 5.5	3.5 – 5.0	6.5	— 0.5	— 0.5	— 0.5	EH+						
VH	36–45	2.5 – 6.0	3.0 – 5.5	3.0 – 5.0	6.5	— 0.5	— 0.5	— 0.5	VH						
HI	26–35	2.0 – 6.0	2.5 – 6.0	2.5 – 5.5	7.0	— 0.5	— 0.5	— 0.5	HI						
MH	17–25	1.5 – 6.5	2.0 – 6.0	2.0 – 5.5	7.0	— 1.0	— 0.5	— 0.5	MH						
ML	8–16	1.0 – 7.0	1.5 – 6.5	1.5 – 5.5	7.5	— 1.0	— 1.0	— 0.5	ML						
LO	0–7	1.0 – 6.5	1.5 – 6.0	1.5 – 5.5	7.5	— 1.0	— 1.0	— 1.0	LO						
Radar: RP-1 Izumrud			ECM:	IFF	Weapon Stations Diagram:										
ECCM:	0		RWR:	—											
Arcs:	Limited		DDS:	—											
Search:	18–6		DJM:	—											
Track:	6–6		AJM:	—											
Lock-On:	6		BJM:	—											
Guns: Two 23 mm NR-23 One 37 mm N-37			Technology: None		Load Point Limits:										
To Hit:	4/2/1				CL : 0–2	1/2: 3–4									
Ammunition:	3.0				Weight Limit: 2,500										
Gunsight:	TT+0/HT+2/BT+3				DT : 5+										
Ranging:	RE				Station	Limit	Allowed Loads								
AtA/AtG:	5/4				1 and 2	700	BB RK RP FT IRM								
Bomb System: Manual					Load Notes:										
Notes:					1. May use 250L, 300L, 400L, or 600L FTs. As an exception to the normal rules for load limits, 600L tanks can be carried, but the turn rate is limited to BT. 2. From 1961, may use AA-2 IRMs.										
VPs: 12/8/4/2									v1.0000000 0000-00-00T00:00:00						

MiG-17PF										Crew: Pilot										
										Maneuver HFPs/DPs:										
Power APs/DPs/FPs: ○										LR/DR	1.0	1.5								
AB 2.5 2.0 2.0 3.0										VR	0.5									
M 1.5 1.5 1.0 1.0										Turn DPs:										
N 0.0 0.0 0.0 0.5										CL	1/2	DT								
I 0.5 0.5 1.0 0.0										TT	0.0	0.0	1.0							
SPBR 0.5 0.5 1.0 —										HT	1.0	1.0	1.0							
										BT	2.0	2.0	3.0							
										ET	3.0	3.0	—							
										No lag or displacement rolls if speed ≥ 5.0.										
Speeds and Ceilings						Climb Capabilities														
Alt. Band	Conf. Ceil.	CL 54	1/2 50	DT 46	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band											
EH+	46+	3.0 – 6.0	3.0 – 5.5	3.5 – 5.0	6.5	1.0 0.5	1.0 0.5	1.0 0.5	EH+											
VH	36–45	2.5 – 6.0	3.0 – 5.5	3.0 – 5.0	6.5	1.0 0.5	1.0 0.5	1.0 0.5	VH											
HI	26–35	2.0 – 6.0	2.5 – 6.0	2.5 – 5.5	7.0	1.5 0.5	1.0 0.5	1.0 0.5	HI											
MH	17–25	1.5 – 6.5	2.0 – 6.0	2.0 – 5.5	7.0	1.5 1.0	1.5 0.5	1.0 0.5	MH											
ML	8–16	1.0 – 7.0	1.5 – 6.5	1.5 – 5.5	7.5	2.0 1.0	1.5 1.0	1.5 0.5	ML											
LO	0–7	1.0 – 6.5	1.5 – 6.0	1.5 – 5.5	7.5	2.0 1.0	2.0 1.0	1.5 1.0	LO											
Radar: RP-1 Izumrud		ECM:	IFF	Weapon Stations Diagram:																
ECCM:	0	RWR:	—																	
Arcs:	Limited	DDS:	—																	
Search:	18–6	DJM:	—																	
Track:	6–6	AJM:	—																	
Lock-On:	6	BJM:	—																	
Guns: Three 23 mm NR-23		Technology: None			Load Point Limits:															
To Hit:	5/3/2				CL : 0–2						1/2: 3–4									
Ammunition:	3.0				Weight Limit: 2,500															
Gunsight:	TT+0/HT+2/BT+3				DT : 5+															
Ranging:	RE	Station			Station															
AtA/AtG:	5/5				Limit	Allowed Loads														
Bomb System: Manual					1 and 2	700 BB RK RP FT IRM														
Notes:																				
1. The Mikoyan-Gurevich MiG-17PF is an interceptor. It is a development of the MiG-17P and uses the same afterburning VK-1F engine, but is equipped with the RP-1 Izumrud radar. The NATO reporting name for the aircraft is Fresco-D and for the radar is Scan Odd.																				
2. High transonic drag (HTD). Low roll rate (LRR) if speed ≥ 4.0.																				
VPs: 12/8/4/2										v1.0000000 0000-00-00T00:00:00										

MiG-17PFU					Crew: Pilot							
					Maneuver HFPs/DPs:							
Power APs/DPs/FPs: ○					LR/DR	1.0	1.5					
					VR	0.5						
					Turn DPs:							
					CL	1/2	DT					
					TT	0.0	0.0	1.0				
					HT	1.0	1.0	1.0				
					BT	2.0	2.0	3.0				
					ET	3.0	3.0	—				
					No lag or displacement rolls if speed ≥ 5.0.							
Speeds and Ceilings												
Alt. Band	Conf. Ceil.	CL 52	1/2 48	DT 45	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band			
EH+	46+	3.0 – 5.5	3.0 – 5.5	3.5 – 5.0	6.5	1.0 0.5	1.0 0.5	1.0 0.5	EH+			
VH	36–45	2.5 – 5.5	3.0 – 5.5	3.0 – 5.0	6.5	1.0 0.5	1.0 0.5	1.0 0.5	VH			
HI	26–35	2.0 – 5.5	2.5 – 6.0	2.5 – 5.5	7.0	1.5 0.5	1.0 0.5	1.0 0.5	HI			
MH	17–25	1.5 – 6.0	2.0 – 6.0	2.0 – 5.5	7.0	1.5 1.0	1.5 0.5	1.0 0.5	MH			
ML	8–16	1.0 – 6.5	1.5 – 6.5	1.5 – 5.5	7.5	2.0 1.0	1.5 1.0	1.5 0.5	ML			
LO	0–7	1.0 – 6.0	1.5 – 6.0	1.5 – 5.5	7.5	2.0 1.0	2.0 1.0	1.5 1.0	LO			
Radar: RP-2 Izumrud		ECM:	IFF	Weapon Stations Diagram:								
ECCM:	0	RWR:	—									
Arcs:	Limited	DDS:	—									
Search:	18–6	DJM:	—									
Track:	6–6	AJM:	—									
Lock-On:	6	BJM:	—									
Guns: —		Technology:			Load Point Limits:							
To Hit:	—	None			CL : 0–2 1/2: 3–4							
Ammunition:	—				Weight Limit: 2,500 DT : 5+							
Gunsight:	TT+0/HT+2/BT+3				Station Limit Allowed Loads							
Ranging:	—				1 and 7 700 BB RK RP FT							
AtA/AtG:	—				3–4 and 5–6 200 BRM RHMs							
Bomb System: Manual					Load Notes:							
<p>Notes:</p> <ol style="list-style-type: none"> The Mikoyan-Gurevich MiG-17PFU is an interceptor. It is a development of the MiG-17PF with AA-1 missiles replacing the cannons. The NATO reporting name for the aircraft is Fresco-E and for the radar is Scan Odd. High transonic drag (HTD). Low roll rate (LRR) if speed ≥ 4.0. 												
VPs: 12/8/4/2								v1.0000000	0000-00-00T00:00:00			