

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: ○					LR/DR	1.0	1.5													
AB CL 1/2 DT Fuel					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 1.0 1.0 2.0 0.0						TT	0.0	0.0	1.0											
SPBR 1.0 1.0 2.0 —						HT	1.0	1.0	1.0											
Cruise Spd. CL: 4.5 Restr. Arcs: 180L					B	2.0	2.0	3.0												
Climb Spd.: 3.5 Blind Arcs: 30–					E	3.0	3.0	—												
Visibility: 4 Internal Fuel: 130					No lag or displacement rolls if speed ≥ 5.0.															
Size: +1 AtA Refuel: No																				
Vulnerability: +1 Ejection Seat: Early																				
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												
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				1 and 2 700 BB RK RP FT IRM										
Gunsight: TT+0/HT+2/BT+3						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.										
Ranging: —																				
AtA/AtG: 5/4																				
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								v2.0000000 0000-00-00T00:00:00												

MiG-17F										Crew: Pilot																		
										Maneuver HFPs/DPs:																		
Power APs/DPs: ○										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 1.0 1.0 2.0 0.0										TT	0.0	0.0																
SPBR 1.0 1.0 2.0 —										HT	1.0	1.0																
										BT	2.0	2.0																
										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																				
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: 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-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										v2.0000000 0000-00-00T00:00:00																		

MiG-17P										Crew: Pilot																																																							
					Maneuver HFPs/DPs:					LR/DR 1.0 1.5																																																							
Power APs/DPs: ○					VR 0.5					Turn DPs:																																																							
<table border="1"> <thead> <tr> <th></th><th>CL</th><th>1/2</th><th>DT</th><th>Fuel</th></tr> </thead> <tbody> <tr> <td>AB</td><td>—</td><td>—</td><td>—</td><td>—</td></tr> <tr> <td>M</td><td>1.5</td><td>1.5</td><td>1.0</td><td>1.0</td></tr> <tr> <td>N</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.5</td></tr> <tr> <td>I</td><td>1.0</td><td>1.0</td><td>2.0</td><td>0.0</td></tr> <tr> <td>SPBR</td><td>1.0</td><td>1.0</td><td>2.0</td><td>—</td></tr> </tbody> </table>						CL	1/2	DT	Fuel	AB	—	—	—	—	M	1.5	1.5	1.0	1.0	N	0.0	0.0	0.0	0.5	I	1.0	1.0	2.0	0.0	SPBR	1.0	1.0	2.0	—	<table border="1"> <thead> <tr> <th></th><th>CL</th><th>1/2</th><th>DT</th><th></th></tr> </thead> <tbody> <tr> <td>TT</td><td>0.0</td><td>0.0</td><td>1.0</td><td></td></tr> <tr> <td>HT</td><td>1.0</td><td>1.0</td><td>1.0</td><td></td></tr> <tr> <td>BT</td><td>2.0</td><td>2.0</td><td>3.0</td><td></td></tr> <tr> <td>ET</td><td>3.0</td><td>3.0</td><td>—</td><td></td></tr> </tbody> </table>						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.
	CL	1/2	DT	Fuel																																																													
AB	—	—	—	—																																																													
M	1.5	1.5	1.0	1.0																																																													
N	0.0	0.0	0.0	0.5																																																													
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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	—																																																														
Cruise Spd. CL: 4.5 Climb Spd.: 3.5 Visibility: 4 Size: +1 Vulnerability: +1					Restr. Arcs: 180L Blind Arcs: 30– Internal Fuel: 130 AtA Refuel: No Ejection Seat: Early																																																												
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																																																									
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 ECCM: 0 Arcs: Limited Search: 18–6 Track: 6–6 Lock-On: 6		ECM: IFF RWR: — DDS: — DJM: — AJM: — BJM: —		Weapon Stations Diagram:																																																													
Guns: Two 23 mm NR-23 One 37 mm N-37 To Hit: 4/2/1 Ammunition: 3.0 Gunsight: TT+0/HT+2/BT+3 Ranging: RE AtA/AtG: 5/4		Technology: None		Load Point Limits: CL : 0–2 1/2: 3–4 Weight Limit: 2,500 DT : 5+																																																													
Bomb System: Manual				Station Limit Allowed Loads 1 and 2 700 BB RK RP FT IRM																																																													
Notes: <ol style="list-style-type: none"> The Mikoyan-Gurevich MiG-17P is an interceptor. It is a development of the MiG-17 and uses the same non-afterburning VK-1A engine, but is equipped with the RP-1 Izumrud radar. The NATO reporting name for the aircraft is Fresco-B and for the radar is Scan Odd. High transonic drag (HTD). Low roll rate (LRR) if speed ≥ 4.0. 										Load Notes: <ol style="list-style-type: none"> 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. From 1961, may use AA-2 IRMs. 																																																							
VPs: 12/8/4/2								v2.0000000 0000-00-00T00:00:00																																																									

MiG-17PF					Crew: Pilot											
					Maneuver HFPs/DPs:											
Power APs/DPs: ○					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	1.0	1.0	2.0	0.0	HT	1.0	1.0	1.0								
SPBR	1.0	1.0	2.0	—	BT	2.0	2.0	3.0								
Cruise Spd. CL: 4.5 Restr. Arcs: 180L					ET	3.0	3.0	—								
Climb Spd.: 3.5 Blind Arcs: 30–					No lag or displacement rolls if speed ≥ 5.0.											
Visibility: 4 Internal Fuel: 130																
Size: +1 AtA Refuel: No																
Vulnerability: +1 Ejection Seat: Early																
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								
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:		Load Point Limits:											
To Hit:	5/3/2		None		CL : 0–2											
Ammunition:	3.0				1/2: 3–4											
Gunsight:	TT+0/HT+2/BT+3				Weight Limit: 2,500											
Ranging:	RE				DT : 5+											
AtA/AtG:	5/5				Station											
Bomb System:	Manual				Limit											
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.																
					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.											
VPs: 12/8/4/2								v2.0000000 0000-00-00T00:00:00								

MiG-17PFU					Crew: Pilot							
					Maneuver HFPs/DPs:							
Power APs/DPs: ○					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	1.0	1.0	2.0	0.0	HT	1.0	1.0	1.0				
SPBR	1.0	1.0	2.0	—	BT	2.0	2.0	3.0				
Cruise Spd. CL: 4.5 Restr. Arcs: 180L					ET	3.0	3.0	—				
Climb Spd.: 3.5 Blind Arcs: 30–					No lag or displacement rolls if speed ≥ 5.0.							
Visibility: 4 Internal Fuel: 130												
Size: +1 AtA Refuel: No												
Vulnerability: +1 Ejection Seat: Early												
Speeds and Ceilings						Climb Capabilities						
Alt. Band	Conf. Ceil.	CL 52	1/2 48	DT 45	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth				
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							
Ammunition:	—				1/2: 3–4							
Gunsight:	TT+0/HT+2/BT+3				Weight Limit: 2,500							
Ranging:	—				DT : 5+							
AtA/AtG:	—				Station Limit Allowed Loads							
Bomb System: Manual					1 and 7	700	BB RK RP FT					
					3–4 and 5–6	200	BRM RHM					
Notes:												
1. 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.												
2. High transonic drag (HTD). Low roll rate (LRR) if speed ≥ 4.0.												
VPs: 12/8/4/2								v2.0000000 0000-00-00T00:00:00				