

Mikoyan-Gurevich MiG-21

- MiG-21F
- MiG-21F-13
- MiG-21PF
- MiG-21PFM
- MiG-21FL
- MiG-21S
- MiG-21M
- MiG-21SM
- MiG-21MF
- MiG-21bis

MiG-21F										Crew: Pilot									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.0															
VR				0.0															
Turn DPs:																			
		CL		1/2		DT													
TT		1.0		1.0		1.0													
HT		2.0		2.0		2.0													
BT		3.0		4.0		4.0													
ET		4.0		—		—													
Power APs/DPs/FPs: ○					Cruise Speed: 6.0					Restr. Arcs: 180L									
					Climb Speed: 4.5					Blind Arcs: 30—									
					Visibility: 5					Internal Fuel: 200									
					Size: +0					AtA Refuel: No									
					Vulnerability: -2					Ejection Seat: Std									
Speeds and Ceilings						Climb Capabilities													
Alt. Band		Conf. Ceil.		CL 58		1/2 56		DT 54		Dive Speed		CL AB Oth		1/2 AB Oth		DT AB Oth		Alt. Band	
EH+		46+		3.5 – 11.0		3.5 – 10.0		4.0 – 9.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		EH+	
VH		36–45		3.0 – 12.0		3.0 – 11.0		3.5 – 10.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		VH	
HI		26–35		2.5 – 10.0		3.0 – 9.0		3.0 – 8.0		11.0		2.0 1.0		2.0 0.5		1.5 0.5		HI	
MH		17–25		2.0 – 9.0		2.5 – 8.0		2.5 – 7.5		10.0		2.0 1.0		2.0 1.0		1.5 0.5		MH	
ML		8–16		2.0 – 7.5		2.0 – 7.5		2.5 – 7.0		8.0		3.0 1.5		3.0 1.0		2.0 1.0		ML	
LO		0–7		1.5 – 6.5		2.0 – 6.5		2.0 – 6.5		7.0		4.0 2.0		3.0 1.0		2.0 1.0		LO	
Radar: SRD-5MN Baza-6					ECM: IFF					Weapon Stations Diagram:									
ECCM: 0					RWR: —														
Arcs: Limited					DDS: —														
Search: —					DJM: —														
Track: 10–6					AJM: —														
Lock-On: 5					BJM: —														
Guns: Two 30 mm NR-30					Technology:					Load Point Limits:									
To Hit: 5/3/1					None					CL : 0–2									
Ammunition: 2.0										1/2: 3–4									
Gunsight: TT+0/HT+2/BT+3										Weight Limit: 2,200									
Ranging: RE										DT : 5+									
AtA/AtG: 5/6										Station Limit Allowed Loads									
										1 and 3 550 BB RP RK DR									
										2 1,100 FT									
Bomb System: Manual																			
Notes:																			
1. The Mikoyan-Gurevich MiG-21F is a day fighter. This is the first production version with two NR-30 cannons, but without a search radar or missile armament. The NATO reporting name for the aircraft is Fishbed-B and for the radar is High Fix.																			
2. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc.																			
VPs: 14/9/5/2															v1 0000000 0000-00-00T00:00:00				

MiG-21F-13										Crew: Pilot									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.0															
VR				0.0															
Power APs/DPs/FPs: ○										Turn DPs:									
CL		1/2		DT		Fuel		CL		1/2		DT							
AB		3.0		3.0		2.5		5.0		TT		1.0		1.0		1.0			
M		2.0		2.0		1.5		2.0		HT		2.0		2.0		2.0			
N		0.0		0.0		0.0		1.0		BT		3.0		4.0		4.0			
I		0.5		0.5		0.5		0.0		ET		4.0		—		—			
SPBR		0.5		0.5		1.0		—											
					Cruise Speed: 6.0					Restr. Arcs: 180L 60–									
					Climb Speed: 4.5					Blind Arcs: 30–									
					Visibility: 5					Internal Fuel: 200									
					Size: +0					AtA Refuel: No									
					Vulnerability: −2					Ejection Seat: Std									
Speeds and Ceilings										Climb Capabilities									
Alt. Band		Conf. Ceil.		CL 58		1/2 56		DT 54		Dive Speed		CL AB Oth		1/2 AB Oth		DT AB Oth		Alt. Band	
EH+		46+		3.5 – 11.0		3.5 – 10.0		4.0 – 9.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		EH+	
VH		36–45		3.0 – 12.0		3.0 – 11.0		3.5 – 10.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		VH	
HI		26–35		2.5 – 10.0		3.0 – 9.0		3.0 – 8.0		11.0		2.0 1.0		2.0 0.5		1.5 0.5		HI	
MH		17–25		2.0 – 9.0		2.5 – 8.0		2.5 – 7.5		10.0		2.0 1.0		2.0 1.0		1.5 0.5		MH	
ML		8–16		2.0 – 7.5		2.0 – 7.5		2.5 – 7.0		8.0		3.0 1.5		3.0 1.0		2.0 1.0		ML	
LO		0–7		1.5 – 6.5		2.0 – 6.5		2.0 – 6.5		7.0		4.0 2.0		3.0 1.0		2.0 1.0		LO	

Radar: SRD-5ND Kvant			ECM: IFF			Weapon Stations Diagram:											
ECCM: 0			RWR: —														
Arcs: Limited			DDS: —														
Search: —			DJM: —														
Track: 10–6			AJM: —														
Lock-On: 5			BJM: —														
Guns: One 30 mm NR-30			Technology:			Load Point Limits:										CL : 0–2	
To Hit: 4/2/1			None													1/2: 3–4	
Ammunition: 2.0						Weight Limit:										2,200 DT : 5+	
Gunsight: TT+0/HT+2/BT+3						Station Limit Allowed Loads											
Ranging: RE						1 and 3 550 BB RP RK DR IRM											
AtA/AtG: 4/3						2 1,100 FT											
Bomb System: Manual						Load Notes:											
						1. From 1961, may use AA-2 IRMs.											
Notes:																	
1. The Mikoyan-Gurevich MiG-21F-13 is a day fighter. This is an improved version of the MiG-21F, with provision for AA-2 IRMs, but with only one NR-30 gun and still without a search radar. The NATO reporting name for the aircraft is Fishbed-C and for the radar is High Fix.																	
2. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc.																	

MiG-21PF										Crew: Pilot									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.0															
VR				0.0															
Power APs/DPs/FPs: ○										Turn DPs:									
CL		1/2		DT		Fuel		CL		1/2		DT							
AB		3.0		3.0		2.5		5.0		TT		1.0		1.0		1.0			
M		2.0		2.0		1.5		2.0		HT		2.0		2.0		2.0			
N		0.0		0.0		0.0		1.0		BT		3.0		4.0		4.0			
I		0.5		0.5		0.5		0.0		ET		4.0		—		—			
SPBR		0.5		0.5		1.0		—											
					Cruise Speed: 6.0					Restr. Arcs: 180L 60—									
					Climb Speed: 4.5					Blind Arcs: 30—									
					Visibility: 5					Internal Fuel: 225									
					Size: +0					AtA Refuel: No									
					Vulnerability: -2					Ejection Seat: Std									
Speeds and Ceilings										Climb Capabilities									
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT		Alt.			
Band Ceil.		58		56		54		Speed		AB Oth		AB Oth		AB Oth		Band			
EH+		46+		3.5 – 11.0		3.5 – 10.0		4.0 – 9.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		EH+	
VH		36–45		3.0 – 12.0		3.0 – 11.0		3.5 – 10.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		VH	
HI		26–35		2.5 – 10.0		3.0 – 9.0		3.0 – 8.0		11.0		2.0 1.0		2.0 0.5		1.5 0.5		HI	
MH		17–25		2.0 – 9.0		2.5 – 8.0		2.5 – 7.5		10.0		2.0 1.0		2.0 1.0		1.5 0.5		MH	
ML		8–16		2.0 – 7.5		2.0 – 7.5		2.5 – 7.0		8.0		3.0 1.5		3.0 1.0		2.0 1.0		ML	
LO		0–7		1.5 – 6.5		2.0 – 6.5		2.0 – 6.5		7.0		4.0 2.0		3.0 1.0		2.0 1.0		LO	
Radar: RP-21 Sapfir					ECM: IFF					Weapon Stations Diagram:									
ECCM: 0					RWR: A														
Arcs: 180+					DDS: —														
Search: 30–6					DJM: —														
Track: 18–6					AJM: —														
Lock-On: 7					BJM: —														
Guns: —					Technology:					Load Point Limits: CL : 0–2									
To Hit: —					None					1/2: 3–4									
Ammunition: —										Weight Limit: 2,200 DT : 5+									
Gunsight: TT+0/HT+2/BT+3										Station Limit Allowed Loads									
Ranging: RE										1 and 3 550 BB RP RK DR BRM IRM									
AtA/AtG: —										2 1,100 FT									
Bomb System: Manual										Load Notes:									
										1. May use AA-1 BRMs and AA-2 IRMs.									
Notes:																			
1. The Mikoyan-Gurevich MiG-21PF is an all-weather interceptor. It is equipped with the RP-21 radar, a more powerful engine than the MiG-21F versions, and the ability to use AA-1 BRMs and AA-2 IRMs. The NATO reporting name for the aircraft is Fishbed-D and the radar is Spin Scan-A.																			
2. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc.																			
VPs: 18/12/6/3										v1.0000000 0000-00-00T00:00:00									

MiG-21PFM										Crew: Pilot									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.0															
VR				0.0															
Power APs/DPs/FPs: ○										Turn DPs:									
CL		1/2		DT	Fuel		CL		1/2		DT								
AB		3.0		3.0		2.5	5.0		TT		1.0/2.0 1.0/2.0 1.0/2.0								
M		2.0		2.0		1.5	2.0		HT		2.0/3.0 2.0/3.0 3.0/4.0								
N		0.0		0.0		0.0	1.0		BT		3.0/4.0 4.0/5.0 4.0/5.0								
I		0.5		0.5		0.5	0.0		ET		4.0/5.0 — —								
SPBR		0.5		0.5		1.0	—		Selectable combat flaps. If selected and speed ≤ 4.5, use higher drag and reduce minimum speeds by 0.5.										
Cruise Speed: 6.0						Restr. Arcs: 180L60–													
Climb Speed: 4.5						Blind Arcs: 30–													
Visibility: 5						Internal Fuel: 220													
Size: +0						AtA Refuel: No													
Vulnerability: −2						Ejection Seat: Std													
Speeds and Ceilings						Climb Capabilities													
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT		Alt.			
Band Ceil.		58		56		54		Speed		AB Oth		AB Oth		AB Oth		Band			
EH+		46+		3.5 – 11.0		3.5 – 10.0		4.0 – 9.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		EH+	
VH		36–45		3.0 – 12.0		3.0 – 11.0		3.5 – 10.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		VH	
HI		26–35		2.5 – 10.0		3.0 – 9.0		3.0 – 8.0		11.0		2.0 1.0		2.0 0.5		1.5 0.5		HI	
MH		17–25		2.0 – 9.0		2.5 – 8.0		2.5 – 7.5		10.0		2.0 1.0		2.0 1.0		1.5 0.5		MH	
ML		8–16		2.0 – 7.5		2.0 – 7.5		2.5 – 7.0		8.0		3.0 1.5		3.0 1.0		2.0 1.0		ML	
LO		0–7		1.5 – 6.5		2.0 – 6.5		2.0 – 6.5		7.0		4.0 2.0		3.0 1.0		2.0 1.0		LO	
Radar: RP-21M Sapfir					ECM: IFF					Weapon Stations Diagram:									
ECCM: 0					RWR: A														
Arcs: 180+					DDS: —														
Search: 30–6					DJM: —														
Track: 18–6					AJM: —														
Lock-On: 7					BJM: —														
Guns: —					Technology:					Load Point Limits: CL : 0–2									
To Hit: —					None					1/2: 3–4									
Ammunition: —										Weight Limit: 2,200 DT : 5+									
Gunsight: TT+0/HT+2/BT+3										Station Limit Allowed Loads									
Ranging: RE										1 and 3 550 BB RP RK DR BRM IRM									
AtA/AtG: —										2 1,100 FT GP									
Bomb System: Manual										Load Notes:									
Notes:					1. The Mikoyan-Gurevich MiG-21PFM is an all-weather interceptor. It is a development of the MiG-21PF with blown flaps, improved RP-21M radar, the capability to carry the GP-9 gun pod, and from 1966 the capability to carry the Kh-66 ASM. The NATO reporting name for the aircraft is Fishbed-F and for the radar is Spin Scan-A.					1. May use AA-1 BRMs and AA-2 IRMs.									
										2. Station 2 may carry a GP-9 gunpod.									
										VPs: 18/12/6/3									
										v1.0000000 0000-00-00T00:00:00									

MiG-21FL										Crew: Pilot									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.0															
VR				0.0															
Power APs/DPs/FPs: ○										Turn DPs:									
CL		1/2		DT		Fuel		CL		1/2		DT							
AB		3.0		3.0		2.5		5.0		TT		1.0		1.0		1.0			
M		2.0		2.0		1.5		2.0		HT		2.0		2.0		2.0			
N		0.0		0.0		0.0		1.0		BT		3.0		4.0		4.0			
I		0.5		0.5		0.5		0.0		ET		4.0		—		—			
SPBR		0.5		0.5		1.0		—											
					Cruise Speed: 6.0					Restr. Arcs: 180L 60—									
					Climb Speed: 4.5					Blind Arcs: 30—									
					Visibility: 5					Internal Fuel: 220									
					Size: +0					AtA Refuel: No									
					Vulnerability: −2					Ejection Seat: Std									
Speeds and Ceilings										Climb Capabilities									
Alt.		Conf.		CL		1/2		DT		Dive		CL		1/2		DT		Alt.	
Band		Ceil.		58		56		54		Speed		AB Oth		AB Oth		AB Oth		Band	
EH+		46+		3.5 – 11.0		3.5 – 10.0		4.0 – 9.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		EH+	
VH		36–45		3.0 – 12.0		3.0 – 11.0		3.5 – 10.0		12.0		1.0 0.5		1.0 0.5		1.0 0.5		VH	
HI		26–35		2.5 – 10.0		3.0 – 9.0		3.0 – 8.0		11.0		2.0 1.0		2.0 0.5		1.5 0.5		HI	
MH		17–25		2.0 – 9.0		2.5 – 8.0		2.5 – 7.5		10.0		2.0 1.0		2.0 1.0		1.5 0.5		MH	
ML		8–16		2.0 – 7.5		2.0 – 7.5		2.5 – 7.0		8.0		3.0 1.5		3.0 1.0		2.0 1.0		ML	
LO		0–7		1.5 – 6.5		2.0 – 6.5		2.0 – 6.5		7.0		4.0 2.0		3.0 1.0		2.0 1.0		LO	

Radar:			R1L		ECM:		IFF		Weapon Stations Diagram:													
ECCM:			0		RWR:		A															
Arcs:			180+		DDS:		—															
Search:			30–6		DJM:		—															
Track:			18–6		AJM:		—															
Lock-On:			7		BJM:		—															
Guns:			—		Technology:				Load Point Limits:										CL : 0–2			
To Hit:			—		None														1/2: 3–4			
Ammunition:			—						Weight Limit:										2,200		DT : 5+	
Gunsight:			TT+0/HT+2/BT+3						Station										Limit		Allowed Loads	
Ranging:			RE						1 and 3										550		BB RP RK DR FT IRM	
AtA/AtG:			—						2										1,100		FT GP	
Bomb System:			Manual						Load Notes:													
									1. From 1961, may use AA-2 IRMs.													
									2. Station 2 may carry a GP-9 gunpod.													
									VPs: 18/12/6/3													
																					v1 0000000 0000-00-00T00:00:00	

<div>MiG-21S</div> <div><div>Power APs/DPs/FPs:</div><div><div>CL1/2DTFuel</div><div>AB3.02.52.05.0</div><div>M1.51.01.02.0</div><div>N0.00.00.01.0</div><div>I0.50.51.00.0</div><div>SPBR0.51.01.0—</div></div></div> <div><div>Cruise Speed: 6.0</div><div>Restr. Arcs: 180L60–</div><div>Climb Speed: 4.5</div><div>Blind Arcs: 30–</div><div>Visibility: 5</div><div>Internal Fuel: 220</div><div>Size: +0</div><div>AtA Refuel: No</div><div>Vulnerability: −2</div><div>Ejection Seat: Std</div></div>					Crew: Pilot						
					Maneuver HFPs/DPs:						
					Turn DPs:						
					Selectable combat flaps. If selected and speed ≤ 4.5, use higher drag and reduce minimum speeds by 0.5.						
Speeds and Ceilings						Climb Capabilities					
Alt. Band	Conf. Ceil.	CL 56	1/2 50	DT 44	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band		
EH+	46+	4.0 – 11.0	4.5 – 10.0	—	12.0	1.0 0.5	1.0 0.5	— —	EH+		
VH	36–45	3.5 – 12.0	4.0 – 11.0	5.0 – 9.0	12.0	1.0 0.5	1.0 0.5	1.0 0.5	VH		
HI	26–35	3.0 – 10.5	3.5 – 9.0	4.0 – 8.0	12.0	2.0 0.5	1.0 0.5	1.0 0.5	HI		
MH	17–25	2.5 – 9.0	3.0 – 8.0	3.0 – 7.0	10.0	3.0 1.0	2.0 1.0	1.5 0.5	MH		
ML	8–16	2.0 – 8.5	2.5 – 7.5	2.5 – 6.5	9.0	4.0 1.0	3.0 1.0	1.5 0.5	ML		
LO	0–7	2.0 – 8.0	2.0 – 7.0	2.5 – 6.0	8.5	4.0 2.0	3.0 1.0	2.0 1.0	LO		

Radar:		RP-22 Saphir	ECM:		IFF	Weapon Stations Diagram:												
ECCM:		0	RWR:		A													
Arcs:		180+	DDS:		—													
Search:		48–12	DJM:		—													
Track:		30–8	AJM:		—	Load Point Limits:												
Lock-On:		7	BJM:		—													
Guns:		—	Technology:		None	Weight Limit: 4,400												
To Hit:		—																
Ammunition:		—																
Gunsight:		TT+0/HT+2/BT+3																
Ranging:		RE	Bomb System:		Manual	StationLimitAllowed Loads												
AtA/AtG:		—																
Notes:		1. The Mikoyan-Gurevich MiG-21S is an all-weather interceptor. It is equipped with the RP-22 radar and is able to use the AA-2 IRMs and RHMs and AA-1 BRMs. It has internal guns, but is able to mount a GP-9 gun pod. The NATO reporting name for the aircraft is Fishbed-J and for the radar is Jay Bird. 2. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc.																
Load Notes:		1. May use AA-1 BRMs, AA-2 IRMs, and AA-2C RHMs. 2. Station 3 may carry a GP-9 gun pod.				VPs: 22/15/7/4												
						v1 0000000 0000-00-00T00:00:00												

MiG-21M										Crew: Pilot																			
										Maneuver HFPs/DPs:																			
LR/DR		1.0		1.0																									
VR				0.0																									
Power APs/DPs/FPs: ○										Turn DPs:																			
CL		1/2		DT		Fuel		CL		1/2		DT																	
AB		3.0		2.5		2.0		5.0		TT		1.0/2.0 1.0/2.0 1.0/2.0																	
M		1.5		1.0		1.0		2.0		HT		2.0/3.0 2.0/3.0 3.0/4.0																	
N		0.0		0.0		0.0		1.0		BT		4.0/5.0 4.0/5.0 4.0/5.0																	
I		0.5		0.5		1.0		0.0		ET		4.0/5.0 5.0/6.0 —																	
SPBR		0.5		1.0		1.0		—		Selectable combat flaps. If selected and speed ≤ 4.5, use higher drag and reduce minimum speeds by 0.5.																			
Cruise Speed:		6.0		Restr. Arcs:		180L 60—																							
Climb Speed:		4.5		Blind Arcs:		30—																							
Visibility:		5		Internal Fuel:		220																							
Size:		+0		AtA Refuel:		No																							
Vulnerability:		−2		Ejection Seat:		Std																							
Speeds and Ceilings						Climb Capabilities																							
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT		Alt.													
Band Ceil.		56		50		44		Speed		AB Oth		AB Oth		AB Oth		Band													
EH+		46+		4.0 – 11.0		4.5 – 10.0		—		12.0		1.0 0.5		1.0 0.5		EH+													
VH		36–45		3.5 – 12.0		4.0 – 11.0		5.0 – 9.0		12.0		1.0 0.5		1.0 0.5		VH													
HI		26–35		3.0 – 10.5		3.5 – 9.0		4.0 – 8.0		12.0		2.0 0.5		1.0 0.5		HI													
MH		17–25		2.5 – 9.0		3.0 – 8.0		3.0 – 7.0		10.0		3.0 1.0		2.0 1.0		MH													
ML		8–16		2.0 – 8.5		2.5 – 7.5		2.5 – 6.5		9.0		4.0 1.0		3.0 1.0		ML													
LO		0–7		2.0 – 8.0		2.0 – 7.0		2.5 – 6.0		8.5		4.0 2.0		3.0 1.0		LO													
Radar:					RP-21MA Sapfir					ECM:					IFF					Weapon Stations Diagram:									
ECCM:					0					RWR:					A														
Arcs:					180+					DDS:					—														
Search:					35–8					DJM:					—														
Track:					24–8					AJM:					—														
Lock-On:					7					BJM:					—														
Guns:					23 mm GSh-23					Technology:					Load Point Limits:					CL : 0–4									
To Hit:					7/4/2					None										1/2: 5–6									
Ammunition:					2.0										Weight Limit:					4,400 DT : 7+									
Gunsight:					TT+0/HT+2/BT+3										Station					Limit					Allowed Loads				
Ranging:					RE										1 and 5					550					BB RP RK EP FT IRM				
AtA/AtG:					5/5										2 and 4					1,100					BB RP RK FT DR IRM				
Bomb System:					Manual										3					1,100					EP PP FT				
Notes:															Load Notes:														
1. The Mikoyan-Gurevich MiG-21M is an all-weather interceptor. It is an export version of the MiG-21S, with the RP-21MA radar instead of the RP-22 and armed with an internal GSh-23L gun and AA-2 IRMs. The NATO reporting name for the aircraft is Fishbed-J and for the radar is Spin Scan-B.															1. From 1961, may use AA-2 IRMs.														
2. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc.																													
															</														

MiG-21SM										Crew: Pilot				
										Maneuver HFPs/DPs:				
LR/DR		1.0		1.0										
VR				0.0										
Power APs/DPs/FPs: ○										Turn DPs:				
CL		1/2		DT	Fuel		CL		1/2		DT			
AB		3.5		2.5	2.5	6.0	TT		1.0/2.0		1.0/2.0			
M		1.5		1.0	1.0	2.0	HT		2.0/3.0		2.0/3.0			
N		0.0		0.0	0.0	1.0	BT		4.0/5.0		4.0/5.0			
I		0.5		0.5	1.0	0.0	ET		4.0/5.0		5.0/6.0			
SPBR		0.5		1.0	1.0	—					—			
					Cruise Speed: 6.0		Restr. Arcs: 180L60–							
					Climb Speed: 4.5		Blind Arcs: 30–							
					Visibility: 5		Internal Fuel: 220							
					Size: +0		AtA Refuel: No		Selectable combat flaps. If selected and speed ≤ 4.5, use higher drag and reduce minimum speeds by 0.5.					
					Vulnerability: −2		Ejection Seat: Std							
Speeds and Ceilings						Climb Capabilities								
Alt. Band	Conf. Ceil.	CL 56	1/2 50	DT 44	Dive Speed	CL AB	Oth	1/2 AB	Oth	DT AB	Oth	Alt. Band		
EH+	46+	4.0 – 11.0	4.5 – 10.0	—	12.0	1.0	0.5	1.0	0.5	—	—	EH+		
VH	36–45	3.5 – 12.0	4.0 – 11.0	5.0 – 9.0	12.0	1.0	0.5	1.0	0.5	1.0	0.5	VH		
HI	26–35	3.0 – 10.5	3.5 – 9.0	4.0 – 8.0	12.0	2.0	0.5	1.0	0.5	1.0	0.5	HI		
MH	17–25	2.5 – 9.0	3.0 – 8.0	3.0 – 7.0	10.0	3.0	1.0	2.0	1.0	1.5	0.5	MH		
ML	8–16	2.0 – 8.5	2.5 – 7.5	2.5 – 6.5	9.0	4.0	1.0	3.0	1.0	1.5	0.5	ML		
LO	0–7	2.0 – 8.0	2.0 – 7.0	2.5 – 6.0	8.5	4.0	2.0	3.0	1.0	2.0	1.0	LO		

Radar:		RP-22 Saphir		ECM:		IFF		Weapon Stations Diagram:				
ECCM:		0		RWR:		A						
Arcs:		180+		DDS:		—						
Search:		48–12		DJM:		—						
Track:		30–8		AJM:		—						
Lock-On:		7		BJM:		—						
Guns:		23 mm GSh-23		Technology:				Load Point Limits:				
To Hit:		7/4/2		None				CL : 0–4				
Ammunition:		2.0						1/2: 5–6				
Gunsight:		TT+0/HT+2/BT+3						Weight Limit: 4,400				
Ranging:		RE						DT : 7+				
AtA/AtG:		5/5						Station Limit Allowed Loads				
Bomb System:		Manual						1 and 5 550 BB RP RK EP FT IRM RHM				
								2 and 4 1,100 BB RP RK FT DR IRM				
								3 1,100 EP PP FT				
								Load Notes:				
								1. From 1961, may use AA-2 IRMs. From 1966, may use AA-2C RHMs.				

MiG-21MF										Crew: Pilot				
										Maneuver HFPs/DPs:				
Power APs/DPs/FPs: ○										LR/DR 1.0 1.0				
										VR 0.0				
CL 1/2 DT Fuel					Cruise Speed: 6.0 Restr. Arcs: 180L60– Climb Speed: 4.5 Blind Arcs: 30– Visibility: 5 Internal Fuel: 220 Size: +0 AtA Refuel: No Vulnerability: −2 Ejection Seat: Std					Turn DPs:				
AB 3.5 2.5 2.5 6.0										CL 1/2 DT				
M 1.5 1.0 1.0 2.0										TT 1.0/2.0 1.0/2.0 1.0/2.0				
N 0.0 0.0 0.0 1.0										HT 2.0/3.0 2.0/3.0 3.0/4.0				
I 0.5 0.5 1.0 0.0										BT 4.0/5.0 4.0/5.0 4.0/5.0				
SPBR 0.5 1.0 1.0 —										ET 4.0/5.0 5.0/6.0 —				
										Selectable combat flaps. If selected and speed ≤ 4.5, use higher drag and reduce minimum speeds by 0.5.				
Speeds and Ceilings						Climb Capabilities								
Alt. Band	Conf. Ceil.	CL 56	1/2 50	DT 44	Dive Speed	CL AB Oth	1/2 AB Oth	DT AB Oth	Alt. Band					
EH+	46+	4.0 – 11.0	4.5 – 10.0	—	12.0	1.0 0.5	1.0 0.5	— —	EH+					
VH	36–45	3.5 – 12.0	4.0 – 11.0	5.0 – 9.0	12.0	1.0 0.5	1.0 0.5	1.0 0.5	VH					
HI	26–35	3.0 – 10.5	3.5 – 9.0	4.0 – 8.0	12.0	2.0 0.5	1.0 0.5	1.0 0.5	HI					
MH	17–25	2.5 – 9.0	3.0 – 8.0	3.0 – 7.0	10.0	3.0 1.0	2.0 1.0	1.5 0.5	MH					
ML	8–16	2.0 – 8.5	2.5 – 7.5	2.5 – 6.5	9.0	4.0 1.0	3.0 1.0	1.5 0.5	ML					
LO	0–7	2.0 – 8.0	2.0 – 7.0	2.5 – 6.0	8.5	4.0 2.0	3.0 1.0	2.0 1.0	LO					

Radar:		RP-22 Saphir	ECM:		IFF	Weapon Stations Diagram:										
ECCM:		0	RWR:		A											
Arcs:		180+	DDS:		—											
Search:		48–12	DJM:		—											
Track:		30–8	AJM:		—	Load Point Limits:										
Lock-On:		7	BJM:		—											
Guns:		23 mm GSh-23	Technology:		None	Weight Limit: 4,400										
To Hit:		7/4/2														
Ammunition:		2.0														
Gunsight:		TT+0/HT+2/BT+3														
Ranging:		RE	Load Notes:													
AtA/AtG:		5/5														
Bomb System:		Manual														
Notes: 1. The Mikoyan-Gurevich MiG-21MF is an all-weather interceptor. It is an export version of the MiG-21SM. The NATO reporting name for the aircraft is Fishbed-J and for the radar is Jay Bird. 2. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc.						1. May use AA-2 and AA-8 IRMs. MDRs may only carry two AA-8 IRMs.										
						Station Limit Allowed Loads										
						1 and 5 550 BB RP RK EP FT MDR IRM										
						2 and 4 1,100 BB RP RK FT DR MDR IRM										
						3 1,100 EP PP FT										
VPs: 24/16/8/4						v1 0000000 0000-00-00T00:00:00										

MiG-21bis										Crew: Pilot									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.0															
VR				0.0															
Turn DPs:																			
		CL		1/2		DT													
TT		1.0/2.0		1.0/2.0		2.0/3.0													
HT		2.0/3.0		2.0/3.0		3.0/4.0													
BT		4.0/5.0		4.0/5.0		—													
ET		4.0/5.0		—		—													
Power APs/DPs/FPs: ○					Cruise Speed: 6.0					Restr. Arcs: 180L 60—									
					Climb Speed: 5.0					Blind Arcs: 30—									
					Visibility: 5					Internal Fuel: 264									
					Size: +0					AtA Refuel: No									
					Vulnerability: −2					Ejection Seat: Std									
Speeds and Ceilings										Climb Capabilities									
Alt. Band		Conf. Ceil.		CL 56		1/2 48		DT 44		Dive Speed		CL AB Oth		1/2 AB Oth		DT AB Oth		Alt. Band	
EH+		46+		4.5 – 13.5		5.0 – 10.5		—		13.5		2.0 1.0		1.0 0.5		— —		EH+	
VH		36–45		3.5 – 13.0		4.0 – 11.0		4.0 – 6.5		13.5		3.0 1.0		2.0 1.0		1.0 —		VH	
HI		26–35		3.0 – 13.0		3.0 – 11.5		3.5 – 6.5		13.5		5.0 1.5		4.0 1.0		1.5 0.5		HI	
MH		17–25		2.5 – 11.5		3.0 – 11.0		3.0 – 6.5		11.0		6.0 2.0		5.0 2.0		2.0 1.0		MH	
ML		8–16		2.5 – 9.5		2.5 – 9.5		2.5 – 7.0		9.5		6.0 2.0		6.0 2.0		3.0 1.0		ML	
LO		0–7		2.0 – 8.5		2.0 – 8.0		2.5 – 7.5		8.5		7.0 3.0		6.0 3.0		4.0 1.5		LO	
Radar: RP-22 Saphir-21					ECM: IFF					Weapon Stations Diagram:									
ECCM: 0					RWR: B														
Arcs: 180+					DDS: —														
Search: 54–12					DJM: —														
Track: 36–8					AJM: —														
Lock-On: 7					BJM: —														
Guns: 23 mm GSh-23					Technology:					Load Point Limits:									
To Hit: 6/3/1					None					CL : 0–2									
Ammunition: 2.0										1/2: 3–4									
Gunsight: TT+0/HT+1/BT+2										Weight Limit: 3,930 DT : 5+									
Ranging: RE										Station Limit Allowed Loads									
AtA/AtG: 5/5										1 and 5 1,100 BB RP RK MDR IRM RHM FT									
										2 and 4 550 BB RP RK MDR IRM RHM									
										3 1,100 GP FT									
Bomb System: Manual										Load Notes:									
Notes:					1. The Mikoyan-Gurevich MiG-21bis is an all-weather interceptor. It is a development of the MiG-21SM with an improved engine. The NATO reporting name for the aircraft is Fishbed-L/N and for the radar is Jay Bird. 2. Low transonic drag (LTD). 3. The thick front canopy gives a +1 modifier to sighting rolls for targets in the 180+ arc. 4. Emergency AB (ChR AB) may be used if speed is at least high transonic and altitude is 13 or less. When used, the AB power is 5.0/4.5/4.0 and the fuel use is 7.5. Emergency AB cannot be used for more than two consecutive game turns or more than eight game turns in total.					1. May use R-3, R-13, and R-60 IRMs (AA-2 and AA-8). May use R-3R RHM (AA-2C). MDRs are for R-60s only.									
										2. Station 3 may carry a 490L FT or a special 800L FT. If carrying an 800L FT, the station is overloaded and the aircraft must remain below low transonic speed.									
VPs: 24/16/8/4										v1.0000000 0000-00-00T00:00:00									