

Northrup F-89 Scorpion

- F-89D
- F-89H
- F-89J (Rocket-and-Fuel Pods)
- F-89J (Fuel-Only Pods)

F-89D Scorpion										Crew: Pilot and Radar Officer																			
										Maneuver HFPs/DPs:																			
LR/DR		1.0		1.5																									
VR				1.0																									
Power APs/DPs/FPs: ○○										Turn DPs:																			
CL		1/2		DT		Fuel		CL		1/2		DT																	
AB		1.0		1.0		6.0		TT		0.0		1.0																	
M		1.0		0.5		3.0		HT		1.0		2.0																	
N		0.0		0.0		1.0		BT		2.0		2.0																	
I		0.5		0.5		0.0		ET		—		—																	
SPBR		0.5		1.0		—																							
If not using AB, reduce maximum speeds by 0.5.					Cruise Speed: 4.5					Restr. Arcs: —																			
					Climb Speed: 3.5					Blind Arcs: 30–																			
					Visibility: 7					Internal Fuel: 575																			
					Size: +0					AtA Refuel: No																			
					Vulnerability: +0					Ejection Seat: Std																			
Speeds and Ceilings						Climb Capabilities																							
Alt. Band		Conf. Ceil.		CL 49		1/2 45		DT 40		Dive Speed		CL AB Oth		1/2 AB Oth		DT AB Oth		Alt. Band											
EH+		46+		3.0 – 5.0		—		—		6.0		0.50 0.25		— —		— —		EH+											
VH		36–45		3.0 – 5.5		3.0 – 5.0		3.0 – 4.5		6.0		0.50 0.25		0.50 0.25		0.50 0.25		VH											
HI		26–35		2.5 – 6.0		2.5 – 5.5		3.0 – 5.0		6.5		0.50 0.25		0.50 0.25		0.50 0.25		HI											
MH		17–25		2.5 – 6.0		2.5 – 5.5		2.5 – 5.0		6.5		1.00 0.50		1.00 0.50		1.00 0.50		MH											
ML		8–16		2.0 – 6.5		2.0 – 6.0		2.0 – 5.5		7.0		1.00 0.50		1.00 0.50		1.00 0.50		ML											
LO		0–7		1.5 – 6.5		1.5 – 6.0		2.0 – 5.5		7.0		1.00 0.50		1.00 0.50		1.00 0.50		LO											
Radar:					APG-40					ECM:					IFF					Weapon Stations Diagram:									
ECCM:					0					RWR:					—														
Arcs:					180+					DDS:					—														
Search:					100–20					DJM:					—														
Track:					40–8					AJM:					—														
Lock-On:					7					BJM:					—														
Guns:					—					Technology:					Load Point Limits:					CL : 0–4									
To Hit:					—					CC Rocket Attack					Weight Limit:					4,400					1/2: 5–8				
Ammunition:					—															DT : 9+									
Gunsight:					TT+0/HT+1/BT+2										Station					Limit					Allowed Loads				
Ranging:					RE										1 and 4					0									
AtA/AtG:					—										2 and 3					1,600					BB FT				
Bomb System:					Manual										Load Notes:														
Notes:															1. Stations 1 and 8 are fixed wing-tip pods for rockets and fuel. Each can carry 4.5 factors of air-to-air rockets, giving a total of 9 factors with both pods. The pod fuel is included in the internal fuel.														
1. The Northrop F-89D Scorpion is an all-weather interceptor.																													
2. High transonic drag (HTD).																													
3. The E-6 fire-control system provides CC Rocket Attack technology.																													

F-89H Scorpion										Crew: Pilot and Radar Officer									
										Maneuver HFPs/DPs:									
LR/DR		1.0		1.5															
VR				1.0															
Turn DPs:																			
		CL		1/2		DT													
TT		0.0		0.0		1.0													
HT		1.0		1.0		2.0													
BT		2.0		2.0		2.0													
ET		—		—		—													
Power APs/DPs/FPs: ○○					Cruise Speed: 4.5					Restr. Arcs: —									
CL 1/2 DT Fuel					Climb Speed: 3.5					Blind Arcs: 30–									
AB 1.0 1.0 1.0 6.0					Visibility: 7					Internal Fuel: 575									
M 1.0 1.0 0.5 3.0					Size: +0					AtA Refuel: No									
N 0.0 0.0 0.0 1.0					Vulnerability: +0					Ejection Seat: Std									
I 0.5 0.5 1.0 0.0																			
SPBR 0.5 1.0 1.0 —																			
If not using AB, reduce maximum speeds by 0.5.																			
Speeds and Ceilings										Climb Capabilities									
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT		Alt.			
Band Ceil.		49		45		40		Speed		AB Oth		AB Oth		AB Oth		Band			
EH+ 46+		3.0 – 5.0		—		—		6.0		0.50 0.25		— —		— —		EH+			
VH 36–45		3.0 – 5.5		3.0 – 5.0		3.0 – 4.5		6.0		0.50 0.25		0.50 0.25		0.50 0.25		VH			
HI 26–35		2.5 – 6.0		2.5 – 5.5		3.0 – 5.0		6.5		0.50 0.25		0.50 0.25		0.50 0.25		HI			
MH 17–25		2.5 – 6.0		2.5 – 5.5		2.5 – 5.0		6.5		1.00 0.50		1.00 0.50		1.00 0.50		MH			
ML 8–16		2.0 – 6.5		2.0 – 6.0		2.0 – 5.5		7.0		1.00 0.50		1.00 0.50		1.00 0.50		ML			
LO 0–7		1.5 – 6.5		1.5 – 6.0		2.0 – 5.5		7.0		1.00 0.50		1.00 0.50		1.00 0.50		LO			

Radar:			APG-40			ECM:			IFF			Weapon Stations Diagram:											
ECCM:			1			RWR:			—														
Arcs:			180+			DDS:			—														
Search:			120–20			DJM:			—														
Track:			60–10			AJM:			—														
Lock-On:			7			BJM:			—														
Guns:			—			Technology:			Load Point Limits:														
To Hit:			—			CC Rocket Attack			CL : 0–4														
Ammunition:			—						1/2: 5–8														
Gunsight:			TT+0/HT+1/BT+2						Weight Limit: 4,400														
Ranging:			RE						DT : 9+														
AtA/AtG:			—																				
Bomb System:			Manual																				
Notes:												Load Notes: 1. Stations 1 and 4 are fixed wing-tip pods for rockets, missiles, and fuel. Each can carry 2 factors of air-to-air rockets, giving a total of 4 factors for with pods. Each can also carry three RHM/IRM. The pod fuel is included in the internal fuel. 2. May use GAR-1/-1D RHMs and GAR-2/-2A IRMs. Typically carries three RHMs in one pod and three IRMs in the other.											
1.																							
2. High transonic drag (HTD).																							
3. The E-9 fire-control system provides CC Rocket Attack technology.																							
VPs: 14/9/5/2												v1 0000000 0000-00-00T00:00:00											

F-89J Scorpion (Rocket-and-Fuel Pods)										Crew: Pilot and Radar Officer						
										Maneuver HFPs/DPs:						
LR/DR		1.0		1.5												
VR				1.0												
Turn DPs:																
Power APs/DPs/FPs: ○○ CL 1/2 DT Fuel AB 1.0 1.0 1.0 6.0 M 1.0 1.0 0.5 3.0 N 0.0 0.0 0.0 1.0 I 0.5 0.5 1.0 0.0 SPBR 0.5 1.0 1.0 —					Cruise Speed: 4.5		Restr. Arcs: —									
					Climb Speed: 3.5		Blind Arcs: 30–									
					Visibility: 7		Internal Fuel: 575									
					Size: +0		AtA Refuel: No									
					Vulnerability: +0		Ejection Seat: Std									
If not using AB, reduce maximum speeds by 0.5.																
Speeds and Ceilings						Climb Capabilities										
Alt. Band	Conf. Ceil.	CL 49		1/2 45		DT 40		Dive Speed		CL AB Oth		1/2 AB Oth		DT AB Oth		Alt. Band
EH+	46+	3.0 – 5.0		—		—		6.0		0.50 0.25		— —		— —		EH+
VH	36–45	3.0 – 5.5		3.0 – 5.0		3.0 – 4.5		6.0		0.50 0.25		0.50 0.25		0.50 0.25		VH
HI	26–35	2.5 – 6.0		2.5 – 5.5		3.0 – 5.0		6.5		0.50 0.25		0.50 0.25		0.50 0.25		HI
MH	17–25	2.5 – 6.0		2.5 – 5.5		2.5 – 5.0		6.5		1.00 0.50		1.00 0.50		1.00 0.50		MH
ML	8–16	2.0 – 6.5		2.0 – 6.0		2.0 – 5.5		7.0		1.00 0.50		1.00 0.50		1.00 0.50		ML
LO	0–7	1.5 – 6.5		1.5 – 6.0		2.0 – 5.5		7.0		1.00 0.50		1.00 0.50		1.00 0.50		LO

Radar: APG-40 ECCM: 1 Arcs: 180+ Search: 120–20 Track: 60–10 Lock-On: 7	ECM: IFF RWR: — DDS: — DJM: — AJM: — BJM: —	Weapon Stations Diagram:												
Guns: — To Hit: — Ammunition: — Gunsight: TT+0/HT+1/BT+2 Ranging: RE AtA/AtG: —	Technology: CC Rocket Attack	Load Point Limits: CL : 0–4 1/2: 5–8 Weight Limit: 4,400 DT : 9+												
Bomb System: Manual		<table border="1"> <thead> <tr> <th>Station</th> <th>Limit</th> <th>Allowed Loads</th> </tr> </thead> <tbody> <tr> <td>1 and 8</td> <td>0</td> <td></td> </tr> <tr> <td>2 and 7</td> <td>1,600</td> <td>BB FT Nuclear RK</td> </tr> <tr> <td>3–4 and 5–6</td> <td>150</td> <td>IRM</td> </tr> </tbody> </table> Load Notes: <ol style="list-style-type: none"> Stations 1 and 8 are fixed wing-tip pods for rockets and fuel. Each can carry 4.5 factors of air-to-air rockets, giving a total of 9 factors with both pods. The pod fuel is included in the internal fuel. May use AIR-2A nuclear RK. May use GAR-2/-2A IRM. 	Station	Limit	Allowed Loads	1 and 8	0		2 and 7	1,600	BB FT Nuclear RK	3–4 and 5–6	150	IRM
Station	Limit	Allowed Loads												
1 and 8	0													
2 and 7	1,600	BB FT Nuclear RK												
3–4 and 5–6	150	IRM												
Notes: <ol style="list-style-type: none"> High transonic drag (HTD). The MG-12 fire-control system provides CC Rocket Attack technology. 		VPs: 15/10/5/3												
		v1 00000000 0000-00-00T00:00:00												

<i>F-89J Scorpion</i> <i>(Fuel-Only Pods)</i>										Crew: Pilot and Radar Officer				
										Maneuver HFPs/DPs:				
LR/DR		1.0		1.5										
VR				1.0										
Power APs/DPs/FPs:				○○										
CL	1/2	DT	Fuel											
AB	1.0	1.0	1.0	6.0										
M	1.0	1.0	0.5	3.0										
N	0.0	0.0	0.0	1.0										
I	0.5	0.5	1.0	0.0	Cruise Speed: 4.5					Restr. Arcs: —				
SPBR	0.5	1.0	1.0	—	Climb Speed: 3.5					Blind Arcs: 30–				
If not using AB, reduce maximum speeds by 0.5.					Visibility: 7					Internal Fuel: 770				
					Size: +0					AtA Refuel: No				
					Vulnerability: +0					Ejection Seat: Std				
Speeds and Ceilings						Climb Capabilities								
Alt. Band	Conf. Ceil.	CL 49		1/2 45	DT 40	Dive Speed	CL AB Oth		1/2 AB Oth		DT AB Oth		Alt. Band	
EH+	46+	3.0 – 5.0		—	—	6.0	0.50 0.25		— —		— —		EH+	
VH	36–45	3.0 – 5.5		3.0 – 5.0	3.0 – 4.5	6.0	0.50 0.25		0.50 0.25		0.50 0.25		VH	
HI	26–35	2.5 – 6.0		2.5 – 5.5	3.0 – 5.0	6.5	0.50 0.25		0.50 0.25		0.50 0.25		HI	
MH	17–25	2.5 – 6.0		2.5 – 5.5	2.5 – 5.0	6.5	1.00 0.50		1.00 0.50		1.00 0.50		MH	
ML	8–16	2.0 – 6.5		2.0 – 6.0	2.0 – 5.5	7.0	1.00 0.50		1.00 0.50		1.00 0.50		ML	
LO	0–7	1.5 – 6.5		1.5 – 6.0	2.0 – 5.5	7.0	1.00 0.50		1.00 0.50		1.00 0.50		LO	

Radar: APG-40 ECCM: 1 Arcs: 180+ Search: 120–20 Track: 60–10 Lock-On: 7	ECM: IFF RWR: — DDS: — DJM: — AJM: — BJM: —	Weapon Stations Diagram:												
Guns: — To Hit: — Ammunition: — Gunsight: TT+0/HT+1/BT+2 Ranging: RE AtA/AtG: —	Technology: CC Rocket Attack	Load Point Limits: CL : 0–4 1/2: 5–8 Weight Limit: 4,400 DT : 9+												
Bomb System: Manual		<table border="1"> <thead> <tr> <th>Station</th> <th>Limit</th> <th>Allowed Loads</th> </tr> </thead> <tbody> <tr> <td>1 and 8</td> <td>0</td> <td></td> </tr> <tr> <td>2 and 7</td> <td>1,600</td> <td>BB FT Nuclear RK</td> </tr> <tr> <td>3–4 and 5–6</td> <td>150</td> <td>IRM RHM</td> </tr> </tbody> </table> Load Notes: 1. Stations 1 and 8 are fixed wing-tip pods for fuel only. The pod fuel is included in the internal fuel. 2. May use AIM-4 IRM and RHMs. 3. May use AIR-2A nuclear RK.	Station	Limit	Allowed Loads	1 and 8	0		2 and 7	1,600	BB FT Nuclear RK	3–4 and 5–6	150	IRM RHM
Station	Limit	Allowed Loads												
1 and 8	0													
2 and 7	1,600	BB FT Nuclear RK												
3–4 and 5–6	150	IRM RHM												
Notes: 1. 2. High transonic drag (HTD). 3. The MG-12 fire-control system provides CC Rocket Attack technology.		VPs: 15/10/5/3												
		v1 00000000 0000-00-00T00:00:00												