

Dassault/Dornier Alpha Jet



The Dassault/Dornier Alpha Jet is a two-seat advanced trainer and light attack aircraft. It was developed starting in 1967 and entered service in 1979.

Versions

Alpha Jet E

The Alpha Jet E was the trainer version, with the E designation taken from *École* (school). It was equipped with two underwing and one centerline weapon stations, but in French and Belgian service these were intended only for weapons training. Some of its later users employed it as a light strike aircraft, despite its shortcomings compared to aircraft dedicated to this role.

It initially served in the French Armée de l'air and the Belgian Air Force, but later with the air forces of Egypt, Morocco, Nigeria, Qatar, Togo, Côte d'Ivoire, and with private companies.

Alpha Jet A

The Alpha Jet A was the attack version, with the A designation taken from *Appui Tactique* (tactical support). Compared to the E version, the A version had two additional underwing weapon stations, a more advanced weapon system, and could replace the rear crew member with an ECM suite.

It initially served in the German Luftwaffe, but after the end of the Cold War many of these aircraft were sold to the air forces of Portugal and Thailand.

Armament and Stores

The Alpha Jet has no internal guns, but when armed would typically carry a gun pod on the centerline station, normally

a CC420 30 mm DEFA pod for E models or a 27 mm Mauser pod for A models. The gun pod was originally not jettisonable, but this restriction was lifted by the 1989 upgrade of Luftwaffe Alpha Jet As.

Typical stores would be SNEB 68 mm or CRV7 70 mm RPs or HE or cluster bombs.

Combat

The Alpha Jet E saw combat in both Moroccan and Nigerian service, in the former case against Polisario Front in the Western Sahara War and in the latter against the Boko Haram militant group.

ADCs

- Alpha Jet A
- Alpha Jet E

Photo Credit

- Alpha Jet: Tim Felce (CC BY 2.5)

Alpha Jet A									Crew: Pilot and Observer	
									Maneuver DPs:	
									LR/DR	1.5
									VR	0.5
Power APs/DPs:									Turn DPs:	
○○									CL	1/2
CL 1/2 DT Fuel									DT	
AB	—	—	—	—					TT	1.0
M	1.5	1.0	1.0	2.0					HT	1.5
N	0.0	0.0	0.0	1.0					BT	2.0
I	1.0	1.0	1.0	0.0	Cruise Spd. CL: 5.0 Restr. Arcs: —				ET	—
SPBR	1.0	2.0	2.0	—	Climb Spd.: 4.0 Blind Arcs: 30-					
					Visibility: 4 Internal Fuel: 180					
					Size: +1 AtA Refuel: No					
					Vulnerability: -1 Ejection Seat: Std					

Speeds and Ceilings						Climb Capabilities					
Alt.	Conf.	CL	1/2	DT	Dive Speed	CL	1/2	DT			
Band	Ceil.	45	38	32		AB	AB	AB			
EH+	46+	—	—	—	—	—	—	—	—	—	EH+
VH	36–45	2.5 – 5.5	3.0 – 5.0	—	7.0	—	0.5	—	0.5	—	VH
HI	26–35	2.5 – 6.0	2.5 – 5.5	2.5 – 5.0	7.0	—	1.0	—	0.5	—	0.5
MH	17–25	2.0 – 6.0	2.0 – 5.5	2.5 – 5.0	7.0	—	1.0	—	1.0	—	0.5
ML	8–16	1.5 – 6.0	2.0 – 5.5	2.0 – 5.0	7.0	—	1.0	—	1.0	—	1.0
LO	0–7	1.0 – 6.0	1.5 – 5.5	1.5 – 5.0	7.0	—	2.0	—	1.5	—	1.0

Alpha Jet E					Crew: Pilot and Observer							
					Maneuver DPs:							
Power APs/DPs: ○○					LR/DR	1.5						
CL 1/2 DT Fuel					VR	0.5						
AB	—	—	—	—	Turn DPs:							
M	1.5	1.0	1.0	2.0	CL	1/2	DT					
N	0.0	0.0	0.0	1.0	TT	1.0	1.0	1.0				
I	1.0	1.0	1.0	0.0	HT	1.0	1.5	1.5				
SPBR	1.0	2.0	2.0	—	BT	2.0	2.0	2.5				
Cruise Spd. CL: 5.0 Restr. Arcs: —					ET	—	—	—				
Climb Spd.: 4.0 Blind Arcs: 30—												
Visibility: 4 Internal Fuel: 180												
Size: +1 AtA Refuel: No												
Vulnerability: -1 Ejection Seat: Std												
Speeds and Ceilings												
Alt. Band	Conf. Ceil.	CL 45	1/2 38	DT 32	Dive Speed	CL AB	1/2 Oth	DT AB	DT Oth			
EH+	46+	—	—	—	—	—	—	—	—	EH+		
VH	36–45	2.5 – 5.5	3.0 – 5.0	—	7.0	—	0.5	—	0.5	VH		
HI	26–35	2.5 – 6.0	2.5 – 5.5	2.5 – 5.0	7.0	—	1.0	—	0.5	HI		
MH	17–25	2.0 – 6.0	2.0 – 5.5	2.5 – 5.0	7.0	—	1.0	—	1.0	MH		
ML	8–16	1.5 – 6.0	2.0 – 5.5	2.0 – 5.0	7.0	—	1.0	—	1.0	ML		
LO	0–7	1.0 – 6.0	1.5 – 5.5	1.5 – 5.0	7.0	—	2.0	—	1.5	LO		
Radar: —					ECM: IFF	Weapon Stations Diagram:						
ECCM: —					RWR: —							
Arcs: —					DDS: —							
Search: —					DJM: —							
Track: —					AJM: —							
Lock-On: —					BJM: —							
Guns: —					Technology:							
To Hit: —						Load Point Limits:						
Ammunition: —						CL : < 5						
Gunsight: TT+0/HT+1/BT+2						1/2: < 9						
Ranging: —						Weight Limit: 5,550						
AtA/AtG: —						DT : ≥ 9						
Bomb System: Manual					Station Limit Allowed Loads							
					1 and 3	750 FT BB BG RP IRM EP						
					2	1,350 BB BG RP GP PP						
Notes:					Load Notes:							
1. The Dassault/Dornier Alpha Jet E is a trainer with a secondary light attack capability.					1. May use 310L and 450L FTs							
2. High transonic drag (HTD).					2. May use 27 mm Mauser BK-27 or CC420 30 mm DEFA GPs. Prior to 1989, the GP cannot be jettisoned.							
					3. May use AIM-9 and Matra 550 IRMs.							
					VPs: 10/7/3/2							
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