

SNCASE Mistral



The SNCASE (Société nationale des constructions aéronautiques du Sud-Est) SE.535 Mistral was a day fighter and fighter-bomber. It was named for the strong wind that occurred frequently in Provence.

Versions

SE 535 Mistral

The SE 535 Mistral was a development of the Vampire FB.5 (previously license-built by SNCASE), but fitted with the more powerful Nene 104B motor (license-built by Hispano-Suiza) providing 5,000 lb of thrust compared to 3,000 lb for the Goblin 2 engine of the FB.5 and 3,500 lb for the Goblin 3 engine of the FB.6.

The Nene engine had been trialed in the Vampire F.2 with its need for greater airflow satisfied by additional “elephant ears” inlets on the upper side of the fuselage behind the cockpit. However, these intakes caused handling problems close to the critical Mach number. In the Vampire F.30, this was mitigated by moving the additional intakes to the underside of the fuselage. In contrast, the Mistral omitted them completely and instead opted for redesigned and enlarged wing-root inlets, and as a consequence had much more benign characteristics at high speed.

The Mistral also featured an ejection seat and air conditioning to facilitate its use in the French colonies in Africa.

It was not clear how much de Havilland was involved in the development of the Mistral, but nevertheless early prototypes of the Mistral were sometimes referred to as the Vampire FB.53.

The Mistral served in the French AA from 1953 until at least 1961.

Armament and Stores

Its gun armament was four 20 mm Hispano cannons with 150 rounds, as in the Vampire. Air-to-ground ordnance included rockets, HE bombs, and napalm bombs.

Combat

The Mistral saw combat with the French AA in the colonial wars in Tunisia and Algeria.

ADC

- Mistral

See Also

- de Havilland Vampire
- SNCASE Vampire

Photo Credit

- SNCASE Mistral: US Department of State (Public Domain)

<div>Mistral</div>										Crew: Pilot																													
										Maneuver HFPs/DPs:																													
LR/DR		1.0	1.0																																				
VR			0.5																																				
Turn DPs:																																							
<div>Power APs/DPs:</div> <div>○</div> <table><tr><td></td><td>CL</td><td>1/2</td><td>DT</td><td>Fuel</td></tr><tr><td>AB</td><td>—</td><td>—</td><td>—</td><td>—</td></tr><tr><td>M</td><td>1.0</td><td>1.0</td><td>1.0</td><td>1.5</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>1.0</td><td>0.0</td></tr><tr><td>SPBR</td><td>1.0</td><td>1.0</td><td>1.0</td><td>—</td></tr></table>						CL	1/2	DT	Fuel	AB	—	—	—	—	M	1.0	1.0	1.0	1.5	N	0.0	0.0	0.0	0.5	I	1.0	1.0	1.0	0.0	SPBR	1.0	1.0	1.0	—	Cruise Spd. CL: 3.5		Restr. Arcs:		—
						CL	1/2	DT	Fuel																														
					AB	—	—	—	—																														
					M	1.0	1.0	1.0	1.5																														
					N	0.0	0.0	0.0	0.5																														
I	1.0	1.0	1.0	0.0																																			
SPBR	1.0	1.0	1.0	—																																			
Climb Spd.: 3.0		Blind Arcs:		30–																																			
Visibility: 4		Internal Fuel:		200																																			
Size: +1		AtA Refuel:		No																																			
Vulnerability: +0		Ejection Seat:		Early																																			
Speeds and Ceilings						Climb Capabilities																																	
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT																									
Band Ceil.		48		44		40		Speed		AB Oth		AB Oth		AB Oth																									
EH+		46+		—		—		—		—		—		—		EH+																							
VH		36–45		2.5 – 5.5		3.0 – 5.0		3.0 – 4.5		6.0		— 0.5		— 0.5		VH																							
HI		26–35		2.0 – 5.5		2.5 – 5.0		2.5 – 4.5		6.5		— 0.5		— 0.5		HI																							
MH		17–25		1.5 – 5.5		2.0 – 5.0		2.0 – 5.0		6.5		— 0.5		— 0.5		MH																							
ML		8–16		1.5 – 5.5		1.5 – 5.0		1.5 – 5.0		6.5		— 1.0		— 1.0		ML																							
LO		0–7		1.0 – 5.5		1.5 – 5.0		1.5 – 5.0		6.0		— 1.5		— 1.0		LO																							
Radar:				—		ECM:								Weapon Stations Diagram:																									
ECCM:				—		RWR:				—																													
Arcs:				—		DDS:				—																													
Search:				—		DJM:				—																													
Track:				—		AJM:				—																													
Lock-On:				—		BJM:				—																													
Guns:				Four 20 mm Hispano Mk V				Technology:				Load Point Limits:				CL : 0–2																							
To Hit:				7/4/3				None								1/2: 3–4																							
Ammunition:				5.0								Weight Limit:				2,000 DT : 5+																							
Gunsight:				TT+0/HT+1/BT+2								Station		Limit		Allowed Loads																							
Ranging:				—								1 and 6		1,000		BB FT																							
AtA/AtG:				5/6*								2–3 and 4–5		200		RK																							
Bomb System:				Manual								Load Notes:																											
												1. Stations 2 to 5 may each carry one or two RP-3 RKs.																											
												2. May use 450L FTs.																											
								</																															