

STAVATTITM SM-31S STILETTO

Powered by
AI-322-30F



ADVANCED LIGHT FIGHTER

SM-315 STILETTO

Performance & Specifications

FLYAWAY COST: \$23 Million Typical Flyaway

AVAILABILITY: TBD

TYPE

Light Fighter (LF), Air Defense Fighter (ADF) and Armed Reconnaissance (AR) Aircraft

ACCOMMODATION

Flight Crew of One Seated on a Martin Baker MK16E or MK18 Zero-Zero Ejection Seat

POWERPLANT

One (1) Motor Sich AI-322-30F Derivative Afterburning Turbofan delivering 11,023 lbs st with Afterburner and 6,613 lbs st at Military Power. The powerplant is fitted with variable geometry, thrust vectoring and reversing 2D nozzle.

STRUCTURE

Semi-monocoque aluminum lithium and aluminum honeycomb sandwich construction throughout. Titanium used in high fatigue areas and high temperature regions. Extensive use of Laser and Friction Stir Welding in all assemblies.

ARMAMENT

Fixed: One fuselage mounted M61A2 20mm gatling cannon with 500 rds
Expendable: Internal Weapons Bay and six external wing hardpoints for up to 7,100 lbs of external stores

DIMENSIONS

Wingspan	24 ft 0 in	Wing Area	176 sq ft
Length Overall	41 ft 8 in	Wheelbase	15 ft 8 in
Height Overall	9 ft 0 in	Wheeltrack	10 ft 8 in

WEIGHTS & CAPACITIES

Empty Weight	8,500 lbs
Max Internal Fuel	3,800 lbs
Max Payload	7,700 lbs
Mid-Mission Weight (MMW)	11,236 lbs
Max Take-Off Weight (MTOW)	20,000 lbs

LOADINGS

Wing Loading @ MMW (lbs/sq ft)	63.8
Thrust-to-Weight @ MMW	0.98
Wing Loading @ MTOW (lbs/sq ft)	113.6
Thrust-to-Weight @ MTOW	0.55
Positive Load Limit @ MTOW	9.0

PERFORMANCE

Max Level Speed @ SL	1.23 Mach	Max Climb Rate @ SL; MTOW	18,998 ft/min
Max Level Speed @ FL350	1.60 Mach	Max Climb Rate @ SL; MMW	34,623 ft/min
Max Cruise Speed @ SL	0.90 Mach	Dash Range @ 1.60 Mach	205 nm
Max Cruise Speed @ FL350	0.90 Mach	Dash Radius @ 1.60 Mach	95 nm
Typical Cruise Speed @ SL	0.80 Mach	Cruise Range @ 0.90 Mach	1,491 nm
Typical Cruise Speed @ FL350	0.80 Mach	Cruise Radius @ 0.90 Mach	546 nm
Takeoff Speed; MTOW @ SL	177 Ktas	Ferry Range with External Tanks	2,307 nm
Stall Speed; MTOW @ SL	161 Ktas	Takeoff, Ground Roll @ SL-TTW	1,425 ft
Approach Speed; Landing Weight @ SL	124 Ktas	Takeoff, BFL @ SL-TTW	2,125 ft
Stall Speed; Landing Weight @ SL	104 Ktas	Landing, Ground Roll @ SL-TLW	1,391 ft
Service Ceiling Exceeds	57,000 ft	Landing, BFL @ SL-TLW	2,128 ft

