

STAVATTI™

SM-31S STILETTO

Powered by
F125XX



ADVANCED LIGHT FIGHTER

SM-31S STILETTO

Performance & Specifications

TYPICAL FLYAWAY COST: \$23 Million

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 MK 18 Zero-Zero Ejection Seat

POWERPLANT

One (1) Honeywell F125XX Afterburning Turbofan delivering 16,000 lbs st with Afterburner and 11,500 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 or Directed Energy Weapon (DEW)

Expendable: Internal Weapons Bay and six external wing hardpoints for up to 7,600 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

		LOADINGS	
Empty Weight	8,600 lbs	Wing Loading @ MMW (lbs/sq ft)	66.9
Max Internal Fuel	4,000 lbs	Thrust-to-Weight @ MMW	1.36
Max Warload	7,600 lbs	Wing Loading @ MTOW (lbs/sq ft)	119.3
Mid-Mission Weight (MMW)	11,772 lbs	Thrust-to-Weight @ MTOW	0.76
Max Take-Off Weight (MTOW)	21,000 lbs	Positive Load Limit @ MTOW	9.0

PERFORMANCE

Max Level Speed @ SL	1.25 Mach	Max Climb Rate @ SL; MTOW	59,693 ft/min
Max Level Speed @ FL350	2.42 Mach	Max Climb Rate @ SL; MMW	92,769 ft/min
Max Cruise Speed @ SL	0.90 Mach	Dash Range @ 2.60 Mach	252 nm
Max Cruise Speed @ FL350	0.90 Mach	Dash Radius @ 2.00 Mach	424 nm
Typical Cruise Speed @ SL	0.80 Mach	Cruise Range @ 0.85 Mach	1,301 nm
Typical Cruise Speed @ FL350	0.80 Mach	Air Superiority Radius, Internal Fuel	371 nm
Takeoff Speed; MTOW @ SL	163 Ktas	Ferry Range with External Tanks	2,054 nm
Stall Speed; MTOW @ SL	148 Ktas	Takeoff, Ground Roll @ SL-TTW	986 ft
Approach Speed; Landing Weight @ SL	118 Ktas	Takeoff over 50 ft @ SL-TTW	1,902 ft
Stall Speed; Landing Weight @ SL	102 Ktas	Landing, Ground Roll @ SL-TLW	2,660 ft
Service Ceiling Exceeds	60,000 ft	Landing over 50 ft @ SL-TLW	3,835 ft

