

# STAVATTI<sup>TM</sup> SM-31S STILETTO

*Powered by*  
AI-322-30F



## ADVANCED LIGHT FIGHTER

# SM-315 STILETTO

## Performance & Specifications

FLYAWAY COST: \$20 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

