

STAVATTI[®]

SM-31T STILETTO



UNDERGRADUATE JET TRAINING SYSTEM

SM-31T STILETTO

Performance & Specifications

FLYAWAY COST: \$23 Million Typical Flyaway

AVAILABILITY: TBD

TYPE

Advanced Pilot Trainer (APT), Supersonic Trainer (ST) and Light Fighter (LF)

ACCOMMODATION

Flight Crew of Two Seated in Tandem on Martin Baker MK16E or MK18 Zero-Zero Ejection Seats

POWERPLANT

One (1) NeoThrust E450-NT-125 Afterburning Turbofan delivering 12,500 lbs st with Afterburner and 10,590 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 7,250 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	8,700 lbs	Wing Loading @ MMW (lbs/sq ft)	68.8
Max Internal Fuel	4,000 lbs	Thrust-to-Weight @ MMW	1.06
Max Warload	7,250 lbs	Wing Loading @ MTOW (lbs/sq ft)	119.3
Mid-Mission Weight (MMW)	11,750 lbs	Thrust-to-Weight @ MTOW	0.59
Max Take-Off Weight (MTOW)	21,000 lbs	Positive Load Limit @ MTOW	9.0

PERFORMANCE

Max Level Speed @ SL	1.03 Mach	Max Climb Rate @ SL; MTOW	21,544 ft/min
Max Level Speed @ FL400	1.30 Mach	Max Climb Rate @ SL; MMW	40,918 ft/min
Max Cruise Speed @ SL	0.90 Mach	Dash Range @ 1.00 Mach	391 nm
Max Cruise Speed @ FL350	0.90 Mach	Dash Range @ 1.30 Mach	198 nm
Typical Cruise Speed @ SL	0.80 Mach	Cruise Range @ 0.85 Mach	1,280 nm
Typical Cruise Speed @ FL350	0.80 Mach	Air Superiority Radius, Internal Fuel	352 nm
Takeoff Speed; MTOW @ SL	182 Ktas	Ferry Range with External Tanks	1,983 nm
Stall Speed; MTOW @ SL	165 Ktas	Takeoff, Ground Roll @ SL-TTW	1,301 ft
Approach Speed; Landing Weight @ SL	121 Ktas	Takeoff over 50 ft @ SL-TTW	2,216 ft
Stall Speed; Landing Weight @ SL	105 Ktas	Landing, Ground Roll @ SL-TLW	2,224 ft
Service Ceiling Exceeds	55,000 ft	Landing over 50 ft @ SL-TLW	3,347 ft

