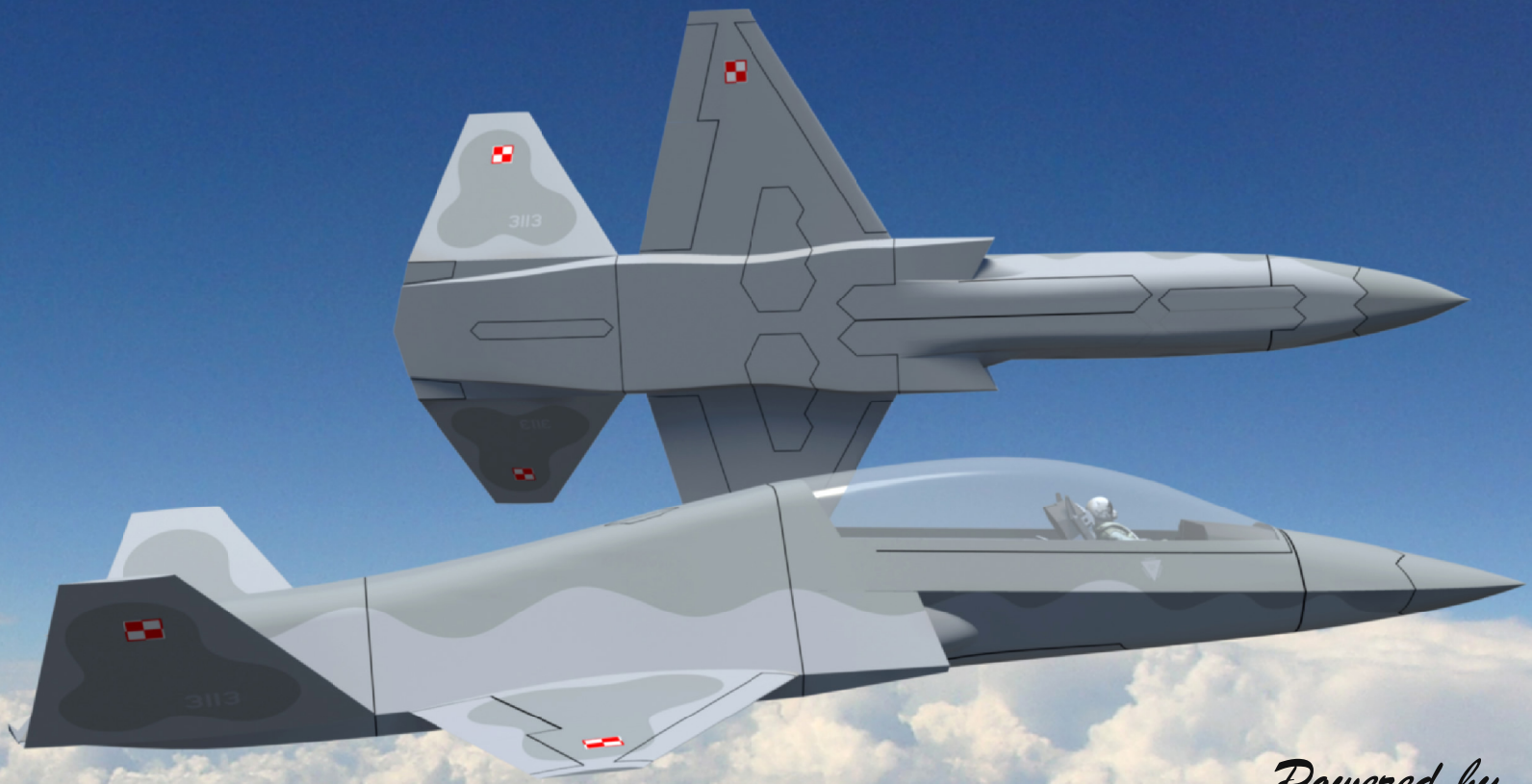
STAVATTI™

SM-31S STILETTO



Powered by

F125XX

ADVANCED LIGHT FIGHTER

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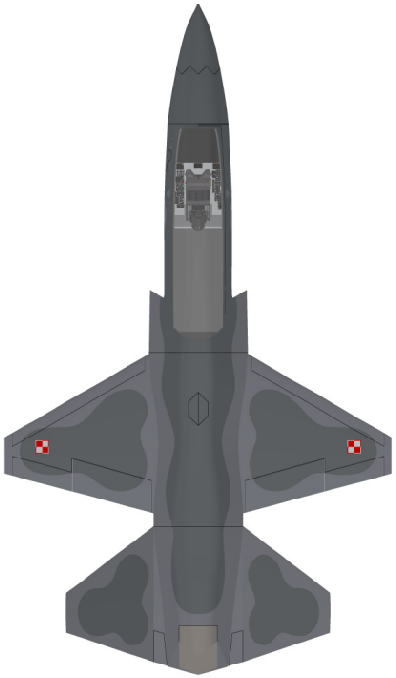
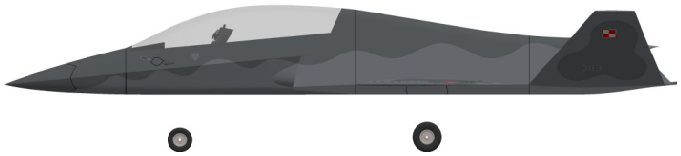
SM-31S STILETTO

Performance & Specifications

FLYAWAY COST: CONTACT STAVATTI **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
Expendable: Internal Weapons Bay and six external wing hardpoints for up to 7,000 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)	64.4
Max Internal Fuel	3,800 lbs	Thrust-to-Weight @ MMW	1.41
Max Payload	7,600 lbs	Wing Loading @ MTOW (lbs/sq ft)	113.6
Mid-Mission Weight (MMW)	11,336 lbs	Thrust-to-Weight @ MTOW	0.80
Max Take-Off Weight (MTOW)	20,000 lbs	Positive Load Limit @ MTOW	9.0

PERFORMANCE

Max Level Speed @ SL	1.23 Mach	Max Climb Rate @ SL; MTOW	32,359 ft/min
Max Level Speed @ FL350	2.19 Mach	Max Climb Rate @ SL; MMW	57,839 ft/min
Max Cruise Speed @ SL	0.90 Mach	Dash Range @ 2.19 Mach	137 nm
Max Cruise Speed @ FL350	0.90 Mach	Dash Radius @ 2.19 Mach	60 nm
Typical Cruise Speed @ SL	0.80 Mach	Cruise Range @ 0.90 Mach	1,246 nm
Typical Cruise Speed @ FL350	0.80 Mach	Cruise Radius @ 0.90 Mach	341 nm
Takeoff Speed; MTOW @ SL	177 Ktas	Ferry Range with External Tanks	1,939 nm
Stall Speed; MTOW @ SL	161 Ktas	Takeoff, Ground Roll @ SL-TTW	955 ft
Approach Speed; Landing Weight @ SL	124 Ktas	Takeoff, BFL @ SL-TTW	1,625 ft
Stall Speed; Landing Weight @ SL	104 Ktas	Landing, Ground Roll @ SL-TLW	1,529 ft
Service Ceiling Exceeds	60,000 ft	Landing, BFL @ SL-TLW	2,264 ft

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