

STAVATTI™

Air Defense Fighter

Super Machete

MODEL

SM-47S SUPER MACHETE™ Air Defense Fighter
SM-47T SUPER MACHETE™ Advanced Pilot Trainer

ACCOMMODATION

SM-47S: Single Seat on MK.16E Ejection Seat
SM-47T: Two Seat Tandem on MK.16E Ejection Seats

POWERPLANT

Number	Single Engine
Model	GEAE F414 EPE Afterburning Turbofan
Thrust @ SL	26,600 lbs Afterburning/14,756 lbs Military

INTERNAL DIMENSIONS

SM-47S SUPER MACHETE (Single Place)

Cabin Length	67 in
Cabin Height-Maximum	61 in
Cabin Width-Maximum	32 in

SM-47T SUPER MACHETE (Two Place Tandem)

Cabin Length	124 in
Cabin Height-Maximum	62 in
Cabin Width-Maximum	32 in

WEIGHTS & CAPACITIES

SM-47S SUPER MACHETE (Single Place)

Dry Empty Weight	14,718 lbs
Maximum Useful Internal Fuel	7,250 lbs (JP-8)
Maximum External Load/Warload	11,000 lbs
Clean Take-Off Weight (CTOW)	22,855 lbs
Typical Combat Weight (TCW)	21,950 lbs
Maximum Take-Off Weight (MTOW)	33,855 lbs

SM-47T SUPER MACHETE (Two Place Tandem)

Dry Empty Weight	15,178 lbs
Maximum Useful Internal Fuel	7,250 lbs (JP-8)
Maximum External Load/Warload	11,000 lbs
Clean Take-Off Weight (CTOW)	23,586 lbs
Typical Combat Weight (TCW)	25,961 lbs
Maximum Take-Off Weight (MTOW)	34,586 lbs

EXTERNAL DIMENSIONS & AREAS

Overall Dimensions (All Models)

Span	36 ft 0 in
Length	40 ft 0 in
Height	12 ft 9 in
Gross Wing Area	309.8 sq ft

Wing (All Models)

LE Sweep	-30°
Span	36 ft 0 in
Area	278.3 sq ft
Aspect Ratio	4.66

Canard (All Models)

LE Sweep	50°
Span (Unit)	4 ft 6 in
Area	31.5 sq ft
Aspect Ratio	2.57

Horizontal Tail (All Models)

LE Sweep	30°
Span (Unit)	9 ft 7 in
Area	86.1 sq ft
Aspect Ratio	1.59

Vertical Tail (All Models)

LE Sweep	40°
Span (Unit)	6 ft 6 in
Area	58.3 sq ft
Aspect Ratio	2.88

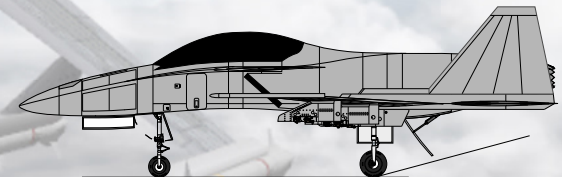
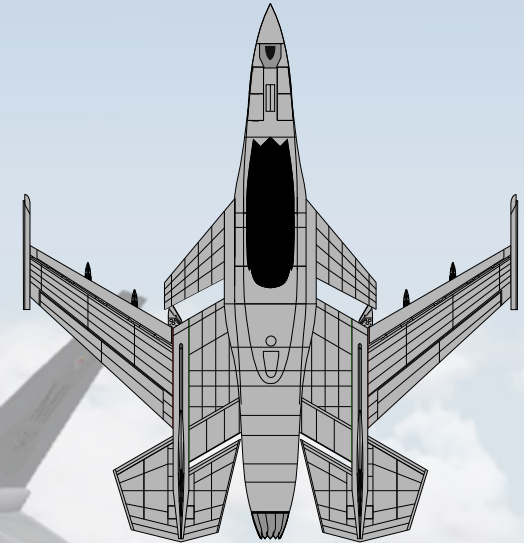
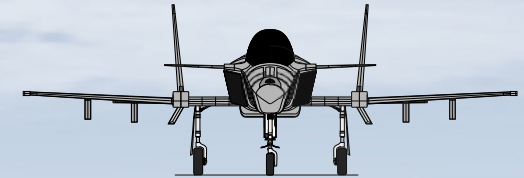
LOADINGS (All Models)

Wing Loading @ CTOW	73.7 lbs/sq ft
Thrust-to-Weight @ CTOW	1.16 to 1.00

Wing Loading @ TCW	70.9 lbs/sq ft
Thrust-to-Weight @ TCW	1.21 to 1.00

Wing Loading @ MTOW	109.3 lbs/sq ft
Thrust-to-Weight @ MTOW	0.79 to 1.00

Design Load Factor-TCW	+11.6/-5.8
Design Load Factor-MTOW	+7.5/-3.75



STAVATTI™

MILITARY AEROSPACE

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FLYAWAY COST

SM-47S: \$21,000,000 to \$28,000,000 USD
SM-47T: \$23,000,000 to \$30,000,000 USD

All unit cost estimates are driven by actual aircraft avionics and systems configurations as selected by customer.

AVAILABILITY

LRIP in 2014-2015 @ 25 Units Annually
FRP in 2015-2016 @ 75+ Units Annually

PERFORMANCE & HANDLING

Performance estimates are based upon a standard SM-47S/T aircraft at CTOW or MTOW. TCW configuration representative of a load including 4 x AIM-120, 2 x AIM-9 under ISA, standard day conditions. Takeoff and landing field lengths are based on level, hard surface runways with zero wind. Ferry range is with 2 x 330 USG external tanks.

Max Level Speed @ SL	800 Ktas/1.23 Mach
Max Level Speed @ 15,000 ft	918 Ktas /1.47 Mach
Max Level Speed @ 25,000 ft	1,088 Ktas/1.82 Mach
Max Level Speed @ 35,000 ft	1,110 Ktas/1.95 Mach
Supercruise Speed @ 25,000 ft	842 Ktas/1.40 Mach
Supercruise Speed @ 35,000 ft	807 Ktas/1.40 Mach
Cruise Speed @ 15,000 ft	539 Ktas/0.85 Mach
Cruise Speed @ 25,000 ft	519 Ktas/0.85 Mach
Cruise Speed @ 35,000 ft	497 Ktas/0.85 Mach

Stall Speed Flapped @ SL-CTOW	127 Ktas
Approach Speed Flapped @ SL-CTOW	130 Ktas
Stall Speed Flapped @ SL-MTOW	138 Ktas
Approach Speed Flapped @ SL-MTOW	156 Ktas

Best Climb Speed @ SL	600 Ktas
Max Climb Rate @ SL-CTOW	50,472 ft/min
Max Climb Rate @ SL-TCW	55,456 ft/min
Max Climb Rate @ SL-MTOW	35,680 ft/min
Service Ceiling Exceeds	65,000 ft
Tactical Radius; Hi-Lo-Hi, Internal Fuel	760 nm
Tactical Radius; 2 x 150 USG Tanks	975 nm
Max Cruise Range, Internal Fuel	1,520 nm
Max Cruise Range, 2 x 150 USG Tanks	2,200 nm
Max Ferry Range, 2 x 330 USG Tanks	2,700 nm

Takeoff Distance @ SL-CTOW	1,096 ft
Landing Distance @ SL-CTOW	1,796 ft
Takeoff Distance @ SL-MTOW	2,483 ft
Landing Distance @ SL-MTOW	2,660 ft

AVIONICS & SYSTEMS

Actual avionics & systems are selected and configured per customer requirements, pending export approval from DDTC. Avionics and systems as specified are for general information purposes only and are configured for export to a NATO Air Force.

Avionics & Sensors

Data-Bus: MIL-STD-1553B
Primary VFRI: HMD or CMC Night Hawk HUD
Mission Computer: GD 3000 AMC
MMDP: CMC FV-4000 MMDP
EFIS: 5 x L3 6 in x 8 in MFD FPLCDs
WDNS: GD SMS Stores Management System
Radar: Lockheed Martin AN/APG-67(V4)
Radio Option 1: AN/ARC-210(V) Integrated Comm
Radio Option 2: AN/ARC-232(V) STARBLAZER Comm
NVG Gen III-IV: Stavatti NVG Compliant Cockpit
Data Link: AN/URC-138 Link 16 Low Volume Terminal
Intercom: Andrea Systems A301-412
IFF Transponder Option 1: AN/APX-113(V) CIT
IFF Transponder Option 2: AN/APX-121(V) IFF
Radar Altimeter: APN-194 Radar Altimeter
GPS/INS: LN 260 Advanced Embedded INS/GPS
TACAN Option 1: AN/ARN-153(V) TACAN (TCN 500)
TACAN Option 2: AN/ARN-154(V) TACAN
VOR/ILS: AN/ARN-147V VOR/ILS/GS/MB

Electronic Countermeasures

Self-Protection Suite: ASPIS
RF ECM: AN/ALQ-187 Internal Countermeasures
RWR: ALR-93(V) Radar Warning Receiver
MAWS: Raytheon AN/AAR-58 Advanced MAWS
SPJ: AN/ALQ-165 ASPJ
Chaff/Flare Dispensers: 14 x AN/ALE-47

Systems & Features

HOTAS: Mason Electric HOTAS Flight Grips
Dual Controls/Instruments: SM-47T Standard
Cockpit Data Recorder: L3 Communications FA2100
Cockpit OBOGS: Carlton OC1132 OBOGS
Fuel Tank OBIGGS: Carlton NC1029 OBIGGS
Aircraft Armor: 500 lbs Spectra® 2000/Titanium
Canopy: Birdstrike/Projectile Resistant Polycarbonate

SERVICEABILITY

MTBF: 15.6 Hours
MMH/FH: 5.61 Hours

ARMAMENT

External

11,000 lbs Maximum External Stores Load;
 9 x External Stores Hardpoints; 14-in Suspension

Internal

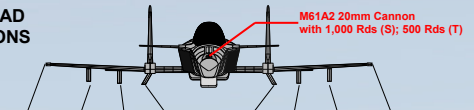
1 x GD M61A2 20mm Vulcan Cannon w/1,000 rds (S)
 1 x GD M61A2 20mm Vulcan Cannon w/500 rds (T)

Tanks & Pods

4 x Sargent Fletcher 150 USG Tank #401315
 4 x Sargent Fletcher 330 USG Tank #74A551200-1001

- Interface for SNIPER Advanced Targeting Pod
- Interface for RAFAEL Litening III FLIR/Targeting
- Interface for AN/ALQ-184 External ECM Pod
- Interface for AN/ALQ-131(V) External ECM Pod

SM-47S/T WARLOAD & STORES STATIONS



STATION NUMBER	1	2	3	4	5	6	7	8
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AIM-9 Sidewinder	×	×	×	×	×	×	×	×
AIM-120 AMRAAM	×	×	×	×	×	×	×	×
AGM-65 Maverick		⊗	⊗	⊗	⊗	⊗	⊗	
GBU-39/B SDB		⊞	⊞	⊞	⊞	⊞	⊞	
GBU-38 JDAM/Mk.82		⊞	⊞	⊞	⊞	⊞	⊞	
GBU-32 JDAM/Mk.83		⊞	⊞	⊞	⊞	⊞	⊞	
GBU-31 JDAM/Mk.84			⊞	⊞	⊞	⊞		
GBU-12 PAVEWAY II		⊞	⊞	⊞	⊞	⊞	⊞	
GBU-24 PAVEWAY III			⊞			⊞		
CBU-97/105 SFW		⊞	⊞	⊞	⊞	⊞	⊞	
AGM-84E SLAM			⊞			⊞		
AGM-88C HARM		⊞	⊞			⊞	⊞	
AGM-154 JSOW		⊞	⊞	⊞	⊞	⊞	⊞	
AN/APX-95 TACTS	⊙	⊙	⊙			⊙	⊙	⊙
330 USG External Tank		⊞	⊞	⊞	⊞			
150 USG External Tank		⊞	⊞	⊞	⊞			

Rated Load @ 9.0g	500 lbs	1,000 lbs	2,500 lbs	2,500 lbs	2,500 lbs	2,500 lbs	1,000 lbs	500 lbs
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