

STAVATTI™

TURBOPROP SUPER COIN

SM-27S/T Machete

MODEL

SM-27S MACHETE™ COIN/CAS/FAC
SM-27T MACHETE™ COIN/FAC/Advanced Trainer

ACCOMMODATION

SM-27S: Single Seat on MKUS.16L Ejection Seat
SM-27T: Two Seat Tandem on MKUS.16L Ejection Seats

POWERPLANT

Model P&W Canada PW127G Turboprop
SHP 2,920 @ 1,200 RPM
Propeller 120" Diameter, 8/6 Blade, Contra-Rotating

INTERNAL DIMENSIONS

SM-27S MACHETE (Single Place)

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

SM-27T MACHETE (Two Place Tandem)

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

WEIGHTS & CAPACITIES

SM-27S MACHETE (Single Place)

Dry Empty Weight 11,200 lbs
Maximum Useful Internal Fuel 5,000 lbs (JP-8)
Maximum External Load/Warload 6,500 lbs
Clean Take-Off Weight (CTOW) 17,604 lbs
Typical Combat Weight (TCW) 18,854 lbs
Maximum Take-Off Weight (MTOW) 24,104 lbs

SM-27T MACHETE (Two Place Tandem)

Dry Empty Weight 11,802 lbs
Maximum Useful Internal Fuel 5,000 lbs (JP-8)
Maximum External Load/Warload 6,500 lbs
Clean Take-Off Weight (CTOW) 18,143 lbs
Typical Combat Weight (TCW) 19,393 lbs
Maximum Take-Off Weight (MTOW) 24,643 lbs

EXTERNAL DIMENSIONS & AREAS

Overall Dimensions (All Models)

Span 50 ft 0 in
Length 38 ft 0 in
Height 12 ft 9 in
Gross Wing Area 280 sq ft

Wing (All Models)

LE Sweep 5°
Span 47 ft 0 in
Area 243.4 sq ft
Aspect Ratio 9.08

Canard (All Models)

LE Sweep 36°
Span (Unit) 6 ft 0 in
Area 36.4 sq ft
Aspect Ratio 4.03

Horizontal Tail (All Models)

LE Sweep 34°
Span (Unit) 10 ft 4 in
Area 88.5 sq ft
Aspect Ratio 2.39

Vertical Tail (All Models)

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

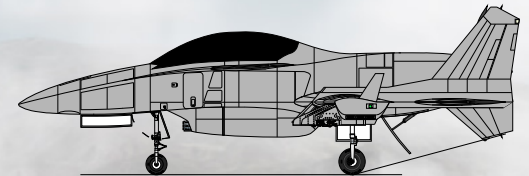
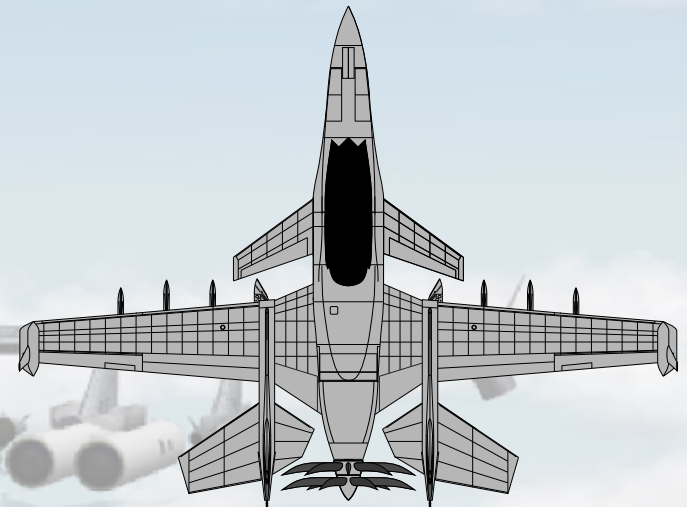
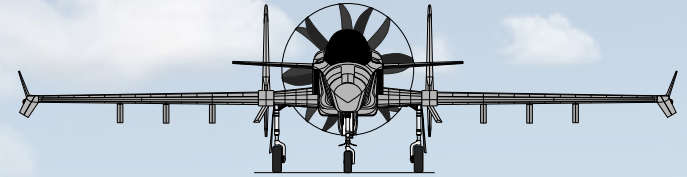
Landing Gear (All Models)

Wheel Base 14 ft 11 in
Wheel Track 10 ft 9 in
Nose/Main Weight Distribution 15% - 85%

LOADINGS (All Models)

Max Wing Loading 88.1 lbs/sq ft
Max Power Loading 8.44 lbs/shp

Design Load Factor-CTOW +10.2/-5.1
Design Load Factor-MTOW +7.5/-3.75



STAVATTI™

MILITARY AEROSPACE

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FLYAWAY COST

SM-27S: \$10,000,000 to \$15,000,000 USD
SM-27T: \$12,000,000 to \$17,000,000 USD

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

AVAILABILITY

LRIP in 2012-2013 @ 25 Units Annually
FRP in 2013-2014 @ 50+ Units Annually

PERFORMANCE & HANDLING

Performance estimates are based upon a standard SM-27S/T aircraft at CTOW or MTOW. MTOW configuration representative of a load including 4 x GBU-12, 2 x BRU-61, 12 x GBU-39 SDB, 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-CTOW	331 Ktas
Max Level Speed @ SL-MTOW	325 Ktas
Max Level Speed @ 15,000 ft-CTOW	383 Ktas
Max Level Speed @ 15,000 ft-MTOW	375 Ktas
Max Level Speed @ 30,000 ft-MTOW	365 Ktas
Max Level Speed @ 35,000 ft-CTOW	360 Ktas
Max Cruise Speed @ 20,000 ft-CTOW	270 Ktas
Max Cruise Speed @ 20,000 ft-MTOW	300 Ktas
Max Cruise Speed @ 30,000 ft-CTOW	330 Ktas
Max Cruise Speed @ 30,000 ft-MTOW	322 Ktas
Max Cruise Speed @ 35,000 ft-MTOW	280 Ktas
Stall Speed Flapped @ SL-CTOW	91 Ktas
Approach Speed Flapped @ SL-CTOW	101 Ktas
Stall Speed Clean @ SL-CTOW	114 Ktas
Stall Speed Flapped @ SL-MTOW	107 Ktas
Approach Speed Flapped @ SL-MTOW	118 Ktas
Stall Speed Clean @ SL-MTOW	133 Ktas
Best Climb Speed @ SL	141 Ktas
Max Climb Rate @ SL-CTOW	4,100 ft/min
Max Climb Rate @ SL-MTOW	2,600 ft/min
Service Ceiling Exceeds	35,000 ft
Tactical Radius; Hi-Lo-Hi, Internal Fuel	850 nm
Max Cruise Range, Internal Fuel	1,500 nm
Max Cruise Range, 2 x 150 USG Tanks	2,100 nm
Max Ferry Range, 2 x 330 USG Tanks	3,700 nm

Takeoff Distance @ SL-CTOW	2,400 ft
Landing Distance @ SL-CTOW	1,099 ft
Takeoff Distance @ SL-MTOW	4,918 ft
Landing Distance @ SL-MTOW	1,504 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
ADF: KR 87 ADF

Electronic Countermeasures

RF ECM: AN/ALQ-211(V)4 AIDEWS
RWR: AN/ALR-56M Advanced 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-27T Standard
Cockpit Data Recorder: L3 Communications FA2100
Cockpit OBOGS: Carlton OC1132 OBOGS
Fuel Tank OBOGS: Carlton NC1029 OBOGS
Aircraft Armor: 500 lbs Spectra® 2000/Titanium
Canopy: Birdstrike/Projectile Resistant Polycarbonate

SERVICEABILITY

MTBF: 15.6 Hours
MMH/FH: 4.1 Hours

ARMAMENT

External

6,500 lbs External Stores Load with 100% Internal Fuel;
 8,000 lbs External Stores Load with 70% Internal Fuel
 8 x External Stores Hardpoints; 14-in Suspension

Internal

1 x Internal Centerline GD GAU-13/A 30mm w/675 rds (S)
 1 x Internal Centerline GD GAU-13/A 30mm w/470 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-27S/T WARLOAD & STORES STATIONS



STATION NUMBER	1	2	3	4	5	6	7	8
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AIM-9 Sidewinder	×	×	×			×	×	×
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		☒	☒			☒	☒	
LAU-61C Rocket Pod	☒	☒	☒	☒	☒	☒	☒	☒
LAU-10C Rocket Pod	☒	☒	☒	☒	☒	☒	☒	☒
M134D Gun Pod		☒	☒	☒	☒	☒	☒	
150 USG External Tank	☒	☒				☒	☒	

Rated Load @ 7.5g	1,000 lbs	2,500 lbs	2,500 lbs	2,000 lbs	2,000 lbs	2,500 lbs	2,500 lbs	1,000 lbs
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