



The combat proven SWE-DISH FA150T Mil Fly-Away system is designed from the bottom up to be a rugged, easy to transport and quick to deploy satellite earth terminal. The lightweight antenna design is optimized to keep package size down and efficiency up, without compromising strength and durability. The sturdy construction makes it suitable for fast moving field groups with high requirements on quick and easy deployment. Tri-band capability (Ku, X, and C) increases the flexibility.

#### **SMART PACKAGING**

The rugged cage has integrated wheels and can be used as a trolley, with the electronics flight cases stacked on top. The integrated skid plate is used for the same purpose on softer ground like grass, sand, mud or snow. Every transported pound is used to create a stable antenna platform, leaving no empty crates or lids lying around after deployment. The antenna sits close to the ground for increased wind stability.

#### **QUICK DEPLOYMENT**

Deployment and assembly of the antenna requires no tools, and can be done "gloves on" under severe environmental conditions. The FA150T Mil is quickly deployed in field, and the satellite can be acquired in less than 10 min. The integrated True Elevation Meter,

and a battery-operated Satellite Analyzer make antenna pointing fast, easy and accurate. The FA150T Mil has been granted a patent for smart transformation from transportation to operation.

#### **HIGH PERFORMING ANTENNA**

The high performing elliptical 1.5 m (59 in) Gregorian offset antenna is the heart of the FA 150T Mil. It consists of a four piece segmented carbon fiber composite reflector, for easy stowing and low weight. The dual optics Gregorian antenna concept allows a small antenna size, combined with the exceptionally good efficiency, low side lobes and good cross polarization/axial ratio performance. The FA150T Mil is DISA certified for operations on DSCS X-band space segment.

#### **BROADBAND CAPABILITY**


The FA150T Mil gives tri-band satellite communication capabilities to mobile command posts, theatre broadcast or incident response. Data capability ranges from 64 kbps to 60 Mbps and allows for IP encrypted traffic. The FA150T Mil also features tracking of inclined orbit satellites, e.g. for X-band operation. The FA150T Mil is a tried and true earth terminal design. It is in use worldwide, often under the most demanding conditions.

# KEY FEATURES

- Combat proven
- Smart packaging – no superfluous crates – minimum volume and weight – skid plate and wheels
- Quick deployment – satellite acquisition in less than 10 minutes
- Rugged and durable constructions designed to with military specifications, compliant with MIL-STD-810E environment
- Low profile platform for stable operation in mil-spec high wind conditions
- Helicopter transportable

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# SPECIFICATIONS: SWE-DISH® FA150T MIL FLY-AWAY

<b>GENERAL</b>		G/T	23 dB/K at 20° elevation and 20°C (68°F), clear sky
Azimuth range	Manual coarse: ±360° Turnbuckles mounted: ±25° coarse, ± 10° fine Actuators mounted: ± 10°	EIRP capability	68.6 dBW with 325W tri-band TWTA
Elevation range	0-87° for X and Ku-band, 25-87° for C-band	<b>X-BAND ANTENNA PERFORMANCE</b>	
Pitch and roll	Built in compensation for pitch and roll by using platform independent reference to true vertical/horizontal	Sidelobe performance	32-25 Log θ dBi
Ambient temperature	Operational -30°C to +55°C (-22°F to +131°F) Storage -40°C to +70°C (-40°F to +158°F)	Polarization	Circular polarization, RHC Tx and LHC Rx
Solar radiation	Operational up to 1,100W/m <sup>2</sup>	Polarization performance	Axial ratio <1.1 dB
Wind speed	Operational up to 20m/s (44mph), windstays mounted	Transmit frequency	7.900 to 8.400 GHz
Operational humidity	Up to 100% condensing	Transmit gain at mid-band	39.5 dBi
Rainfall	Maximum 100 mm/h (2 in/h), excluding link budget effects	Receive frequency	7.250 to 7.775 GHz
Sealing	All flight cases are sealed to IP65 during transport and storage	Receive gain at mid-band	39.0 dBi
Altitude	Operational up to 3,000m (9,850 ft) Survival up to 10,000m (32,800 ft)	G/T	16.5 dB/K at 20° elevation and 20°C (68°F), clear sky
Material/Construction	Carbon fiber antenna components, stainless steel antenna platform/cage, miscellaneous aluminum parts (anodized)	EIRP capability	65.5 dBW with 450W tri-band TWTA
Weight	FA150T Mil antenna with Ku-band feed chain, PLL LNBS, tracking actuators and accessories: 60 kg (132 lb)	<b>C-BAND ANTENNA PERFORMANCE</b>	
Dimensions	FA150T antenna cage: 120x76x53 cm (47.0x29.9x20.9 in)	Sidelobe performance	32-25 Log θ dBi
Antenna concept	Gregorian type dual optics antenna on Ku and X bands. Prime focus offset on C band. Elliptical 4-piece main reflector in carbon fiber with size 1.5 x 1.35 m (59.1 x 53.1 in), folding feed arm and subreflector	Polarization	Selectable circular/linear without change of feed arm
Approvals	Eutelsat/Intesat compliant, station approval. FCC license (E980294) DISA certified	Polarization performance	Axial ratio <1.3 dB, XPD >27 dB
<b>KU-BAND ANTENNA PERFORMANCE</b>		Transmit frequency	5.850 to 6.425 GHz
Sidelobe performance	29-25 Log θ dBi	Transmit gain at mid-band	36.6 dBi
Polarization	Linear < 1° accuracy	Receive frequency	3.625 to 4.200 GHz
Polarization performance	XPD >35 dB within 1dB cone	Receive gain at mid-band	33.3 dBi
Transmit frequency	13.750 to 14.500 GHz	G/T	13.1 dB/K at 20° elevation and 20°C (68°F), clear sky
Transmit gain at mid-band	45.0 dBi	EIRP capability	60.6 dBW with 325W tri-band TWTA
Receive frequency	10.700 to 12.750 GHz		
Receive gain at mid-band	43.2 dBi		
Specifications are subject to change without notice.			