

# ESSTRACK



## ALPHA-1™

PRODUCT & SERVICES

2015



ALPHA-1™ by ESSTRACK provides global satellite voice and tracking services from small corporate jets, corporate helicopters or larger commercial aircraft.

Designed to meet strict aviation regulations & requirements, the system provides clear, accurate and secure satellite services to your aircraft with communications from pole-to-pole.

Utilising the trusted Iridium global satellite constellation, the ESSTRACK ALPHA-1™ system delivers clear voice and text/sms communications to aircrew or passengers\*

The system is easily installed by your certified LAME (Licensed Aircraft Maintenance Engineer) or have our install team provide this for you\*\*

ALPHA-1™ will help you and your operations team better manage fuel, arrival/departure times, allow crew to communicate securely with ground crew or safety authorities whilst being able to maintain security by providing accurate global positioning.

\* Optional Extra

\*\* Fees apply

## ROTARY



## CORPORATE



## AIRLINE





# ALPHA-1™ KEY FEATURES:

Using the Iridium global satellite network, the ALPHA-1 kit provides the following features:



Global satellite tracking with multiple activation parameters allowing a variety of pulsing position reports based on your budget, with shorter regular intervals or longer for lower cost all visible through a secured access web map view\*  
(\* Additional fees apply – see Pricing & Subscriptions)

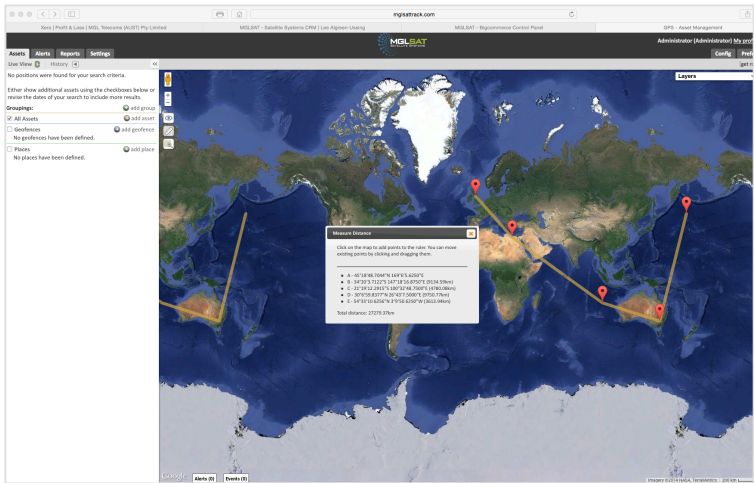
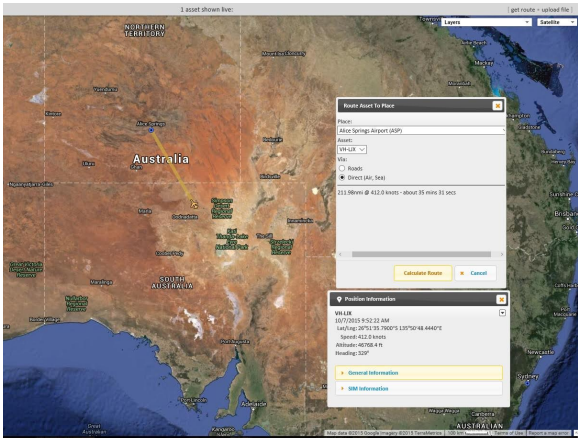


Make affordable crystal clear phones calls in flight from the cockpit or important business calls from the cabin\*, providing privacy and security  
(\* Additional privacy handsets available at extra cost)



Send and receive messages in flight through the Iridium handset

## ESSTRACK SatGrab™ Portal



Manage aircraft, set geo-fences and email or SMS alerts for multiple operation parameters of your fleet globally with secure login authority level access.

## KIT INCLUDES



### SATELLITE HANDSET

Iridium 9555 Global satellite voice / text handset

### DOCKING STATION

Providing real time GPS positioning, short burst data alerts, Bluetooth connectivity and powering of your handset



### AERO ANTENNA (RST 703)

Aviation Approved (TSO) low profile high accuracy aviation dual voice/GPS & Cables

# TECHNICAL SPECIFICATIONS

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<b>IRIDIUM 9555 SATELLITE HANDSET</b>		
Network	Iridium Satellite Constellation (66 sats)	The Iridium 9555 Satellite Handset is trusted by Military, Governments and Aid agencies worldwide. Used external to the dock the handset has 30 hrs standby time and 3 hours talk time. Global coverage from Pole-to-Pole.
Size	143 x 55 x 30mm	
Weight	266 grams	
Coverage (Handheld)	Global Pole to Pole	
Functions	Voice, Text/SMS	
<b>ANTENNA</b>		
Approvals	8310-3 Certificate of Airworthiness TSO Approval C-144	The RST704 dual mode patch Aero antenna is supplied complete with bulkhead mount that enables it to be securely mounted without the connectors being exposed to the environment. The RST704 dual mode patch antenna is fitted with an SMA female connector for GPS and a TNC.
Connector	TNC / SMA	
Operational Temp	-55°C to +85°C	
Weight	4.5 oz	
Frequency	1621 +/- 5 MHz	
<b>SATDOCK-G 9555</b>		
GPS Module	14 Tracking Channels, 51 Acquiring, L1 frequency (1575.42 MHz)	The SatDOCK-G supports Tracking & Alert functionality via the dedicated in built GPS engine. Tracking messages can be pre configured to support periodic reporting, manual position report update via button press, remote polling or sending of emergency alert messages all via SMS / SMS to email or SBD (Short Burst Data).
Accuracy	Position 2.5m CEP, Velocity 0.1 m/s, Timing 300ns	
Update Rate	1 Hz	
Acquisition TTFF	Cold 29 sec, Hot 1 sec	
Sensitivity	-161 dBm	
Operational Limits	Altitude 18,000m, Velocity 515 m/s	Other features include phone charging, in-built Bluetooth, USB data, inbuilt ringer and allows antenna and power to be permanently connected to the Dock ready for use. The Iridium 9555 handset is easily inserted and removed by the press of a button on the top of the dock making it very easy to use away from the Dock when required.
Data Port (USB)	USB Mini-B 5 pin female (USB Slave) USB 2.0 compliant, CDC Serial Profile	
Power Cable	4-way Microfit socket. +Vin, 0V (GND) and ACC (On/Off Sense) 9-32VDC tolerant. ACC sense: High(1) >+7Vdc Low (0) 0V <+5VDC	
Dimensions	7.89in H x 2.93in W x 2.68in D 200mm H x 74.36mm W x 68mm D	
Weight	320 Grams (0.7 lbs.)	
Atmospheric Protection	Conformal coating to circuit board assembly	SatDOCK-G also supports the use of an optional active privacy handset or the fully featured intelligent handset, RST970 these simply and easily added to the SatDOCK-G.  SatDOCK-G provides the flexibility of using your handheld satellite telephone to support the use of equipment for a wide variety of applications. It has an in-built Bluetooth module for voice connectivity along with an intelligent tracking and alert reporting system utilizing the in-built GPS engine of the SatDOCK-G. The alert & tracking module can be configured to support periodic polling or emergency alert reporting.
EMC Compliance	CE, IEC60945:2002 (Section 9 & 10) 2009/19/EC – Automotive EMC directive	
Operating Humidity Range	< 85% RH non-condensing	
Operational Range	-20°C to +70°C	
RoHS	Full compliant RoHS Directive EU 2002/95/EC (All 6 substances)	



Certificate 8310  
Aero Antenna Approval

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