Viasat

Roll-On Roll-Off
SATCOM for C-130 Fleets

Governments are seeking to maximise their capabilities by extending the use of their existing platforms. The versatility of Hercules C-130 makes it the multi-role aircraft of choice.

A turnkey C-130 SATCOM solution

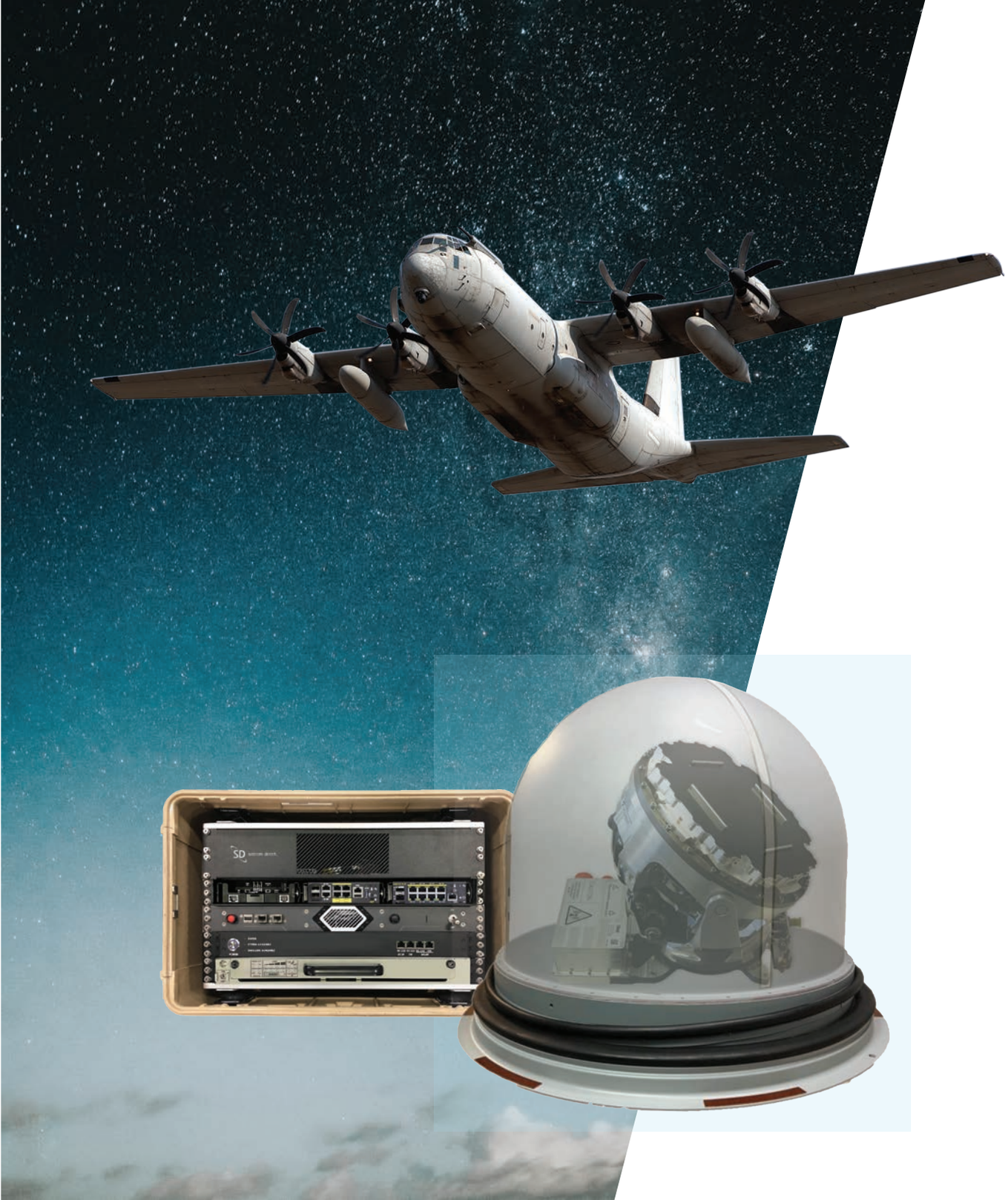
Enabling global access to high-throughput Viasat Air-IQ services

The Tactical Removable Airborne Satellite Communications (TRASC) solution is a versatile upgrade for C-130 fleets. TRASC can be installed without modifying the aircraft.

It provides Roll-On/Roll-Off (RORO) satellite communications that enable multi-functional capabilities for transmitting voice and data in Ka bands. This keeps crews connected wherever the mission takes them.

From data-intensive intelligence, surveillance, and reconnaissance (ISR) operations, to MEDEVAC, telemedicine, airborne teleconferencing, and mission briefing capabilities - the solution facilitates a capability step change.

Backed by the robust Viasat Air-IQ network infrastructure, our C-130 RORO solution gives your aircraft access to Viasat's proven G2X Air service. For more demanding missions, it also provides access to the G2X Air Plus and K-MAX high return throughput products.



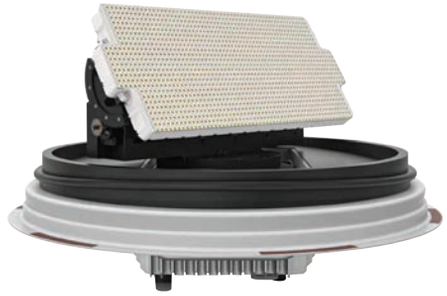
Key Benefits:

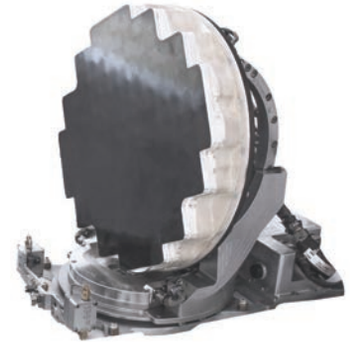
- High, scalable data rates enabled by Ka-band GEO constellations for data intensive missions.
- Beyond Line of Sight (BLOS) communications for high-definition video, sensor data, and ISR data transmission.
- Roll-On/Roll-Off Capability – the removable characteristics of the TRASC solution allows quick installation and removal using the aircraft's existing escape hatches, requiring no modification of the C-130 airframe (reduced certification burden and efficiency gains).
- Support for secure communications in remote locations – the solution can integrate with sovereign comms equipment to provide connectivity during sensitive missions in contested environments.
- Standalone system – no interaction with the aircraft's mission computer required, enabling a rapid capability upgrade path for C-130 operators.
- Lightweight and low form factor – terminals have small footprints to minimise the aerodynamic impact and increase fuel efficiency.
- Seamless handovers and reliability – during C-130 long endurance missions, RORO terminals will be able to seamlessly switch between satellites and beams to ensure reliable, continuous BLOS communications.

Features:

- Access to Viasat's ubiquitous Global Xpress (GX) Ka band network, providing global coverage (including the Arctic).
- Compatible with Viasat's Air-IQ service, enabling mission-specific high data rates.
- Removable airborne terminal that repurposes a C-130 hatch (MPHS).
- A radome that requires no airframe modifications.
- Operates via C-130 electrical power system (28 VDC or 115 VAC 400Hz) with low power consumption.
- Secure communications support.
- DO-160G environmental qualification for aircraft safety and certification.
- Ruggedised for C-130 airborne operations in challenging environments.
- MIL-STD-810H and MIL-STD-461F compliant, required for durability and reliability.
- Certifiable via STC through FAA or EASA
- Lightweight yet robust design that ensures continuous data link during C-130 manoeuvres.
- Designed for easy, 15-minute deployment and compatible with all C-130 variants.

Specifications





Antenna	GetSAT Milli-EX RORO (C-130)	PSKa RORO (C-130)	GX30 RORO (C-130)
Primary Modem	G-MODMAN III	SD SMU	G-MODMAN III
Secondary Modem	-	-	Teledyne Axiom/Viasat MBR
Description	Ka-band, FMA, electronic steerable array.	Ka-band, FMA, electronic steerable array.	Ka-band, 30cm parabolic antenna.
G2X Air Plus	Yes	Yes	Yes
K-Max	No	No	Yes (Ka only)
VS-3	No (VS-3)	No (VS-3)	No (VS-3)
Modem Type	1RU and ARINC enclosures	1RU and ARINC enclosures	1RU and ARINC enclosures
Form Factor	(L) 66.04cm (W) 66.04cm (H) 69.85cm	(L) 66.04cm (W) 66.04cm (H) 69.85cm	(L) 66.04cm (W) 66.04cm (H) 69.85cm
Block Up Converter (BUC)	48.5dBW EIRP typical		52dBW EIRP typical
RF Bands	Com Ka (Rx 19.2-20.2GHz, Tx 29-30GHz) & MIL-Ka (RX x 20.2-21.2GHz, Tx 30-31GHz)	Com Ka(Rx: 17.7 - 20.2 GHz, Tx: 27.5 – 30 GHz)	Com Ka (Rx 19.2-20.2GHz, Tx 29-30GHz) & MIL-Ka (RX x 20.2-21.2GHz, Tx 30-31GHz)
Power Source	+28VDC	115 V / 400Hz AC Power	+28VDC
Equipment Interface	Multi Ethernet data; ARINC 429 from aircraft navigation bus	Multi Ethernet data; ARINC 429 from air- craft navigation bus	Multi Ethernet data; ARINC 429 from air- craft navigation bus
Weight	22kg (48.5lbs) including radome and hatch mount	TRASC Hatch: 33.6kg (74lbs) Base Kit 150-180lbs	TRASC Hatch: <60.5lbs Base Kit 68kg to 81.6kg (150-180lbs)

C-130 RORO Hardware

C-130 RORO July 2025