WHITE PAPER

INTELSAT General

FlexAir for Government
How High-performance Satellite Connectivity is Changing Government Aeronautical Operations

Airborne Communications Are Taking Off

The need for U.S. and allied aeronautical connectivity has increased dramatically in the past decade, shifting from very low data rate and radio requirements to instant, high-throughput data and voice. Increasingly, rapid-response aviation forces are deployed in contested communications environments. And the high-data-rate requirements for two-way communication, as well as surveillance and reconnaissance (ISR) applications continue to increase.

"In an ideal world," says one top U.S. Air Force official, "warfighters should be able to use SATCOM technology as easily as most people use smartphones when they are on the move."[1] But that goal is far from a reality. The U.S. military has more than 130 different types of satellite terminals in its inventory, but only some of them are compatible with satellites operated by the U.S. government. And only a handful are small enough to be deployed on smaller airframes.

These operational challenges are exacerbated by the following factors:

- Current antenna systems that are easily installed and easy to use inflight are limited by low data throughput.
- The high-speed broadband used to enable new applications typically requires larger, higher drag antennas.
- Buying, building, operating, and maintaining an entire global satellite services infrastructure can be very expensive.

Government teams need a managed SATCOM solution – something similar to a cell phone plan. The ideal solution should provide reliable and secure connectivity when and where it's needed and at an affordable price.

[1] Harper, John. 2018. "U.S. Military Intends to Revamp Communications Networks." National Defense NDIA's Business & Technology Magazine. December 7, 2018. article link: https://www.nationaldefensemagazine.org/articles/2018/12/7/u-s-military-intends-to-revamp-communications-networks

Use Cases for an HTS Solution

Enroute Communications

Organizations are particularly challenged in early-entry or surge situations in contested communications environments where command and control is vital to situational awareness. These operators require instant, on-demand broadband connectivity for receiving data, voice, and video as early as pre-flight and extending to enroute transit and on-station.

Manned and Unmanned (ISR)

ISR transmitting real-time, full motion video, requires large data infrastructure and the secure terrestrial routing to mission stakeholders. Through a combination of wide-beam coverage and high-performance spot beams, FlexAir supplies airborne teams with the resilient connectivity and coverage vital to their intelligence gathering efforts.

Continuity of Operations (COOP)

The Defense Information Systems Agency has rightly stated, "To maintain their tactical edge, today's warfighters need the ability to access and share information from anywhere. End users must have a secure, reliable way to access data and collaborate with other users." Previously, radio line-of-sight, and push-to-talk radio was adequate.

VVIP Flight Movement

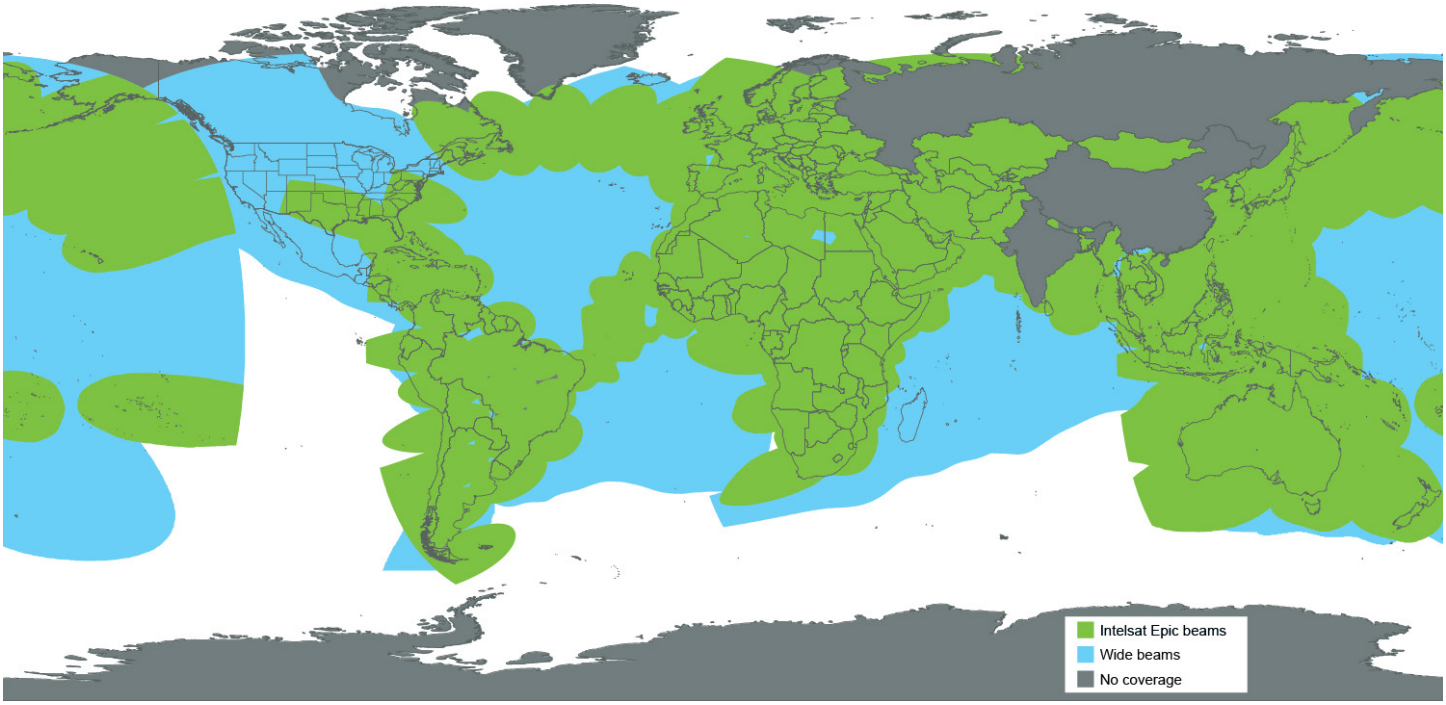
Redundant and resilient networks are critical to Command decision makers who must be fully connected while inflight. Access to Video Teleconference (VTC), situational awareness feeds and the ability to direct decisions from a senior leader aircraft are essential. Now government teams need to access and share information anywhere, anytime—and the only way to satisfy this broadband requirement is through resilient SATCOM.

Connectivity Where and When Teams Need it Most

Welcome to Intelsat FlexAir for Government – a managed, end-to-end service providing cost-effective, high-performance broadband connectivity that enables first-entry aircraft to quickly establish and maintain resilient, secure communications in contested environments across the globe.

FlexAir leverages the largest, high-performing GEO fleet in the world, combining multi-layered, Ku-band HTS coverage with wide and spot beams to bring broadband connectivity to the entire globe-including the most trafficked flight routes. What's more, Government teams can provision and deploy terminals at a moment's notice.

FlexAir Coverage Map



Flexible, Affordable Pricing

The FlexAir solution is available on a pay-as-you-go basis, a gigabyte subscription package or a predictable, monthly fee for Mbps. This makes it ideal for both quick-response missions and round-the-clock flight operations.

High-performance in Unknown Situations

FlexAir supports both enroute and ISR systems for data, voice, and video communications for transit and ISR operations. The solution includes committed capacity for applications such as sensor data collection, video transmission, and communications relay. FlexAir delivers download speeds of 15 Mbps and upload of 3 Mbps with an option of up to 6 Mbps—more than 20x the speed (at a tenth the cost) of similar offerings from other commercial networks.

Easy Deployment and Operation

Non-technical operators can connect to the FlexAir service enroute or on-station with minimal deployment and through a variety of existing terminals. The service is designed for non-technical users to be able to connect to the most ideal satellite with as much ease as using a hand-held radio. Once connected, the user can send and receive voice, video, and data simultaneously, allowing for quick access and transmission in the rush of an operation.

The Highest Standards of Security

Because it operates entirely within the network, FlexAir offers the highest level of information protection and cybersecurity. Intelsat FlexAir complies with the U.S. government's strict information cyber security standards under the Risk Management Framework and is the only satellite operator with independent third-party Service Organizational Control 3 (SOC 3) accreditation.

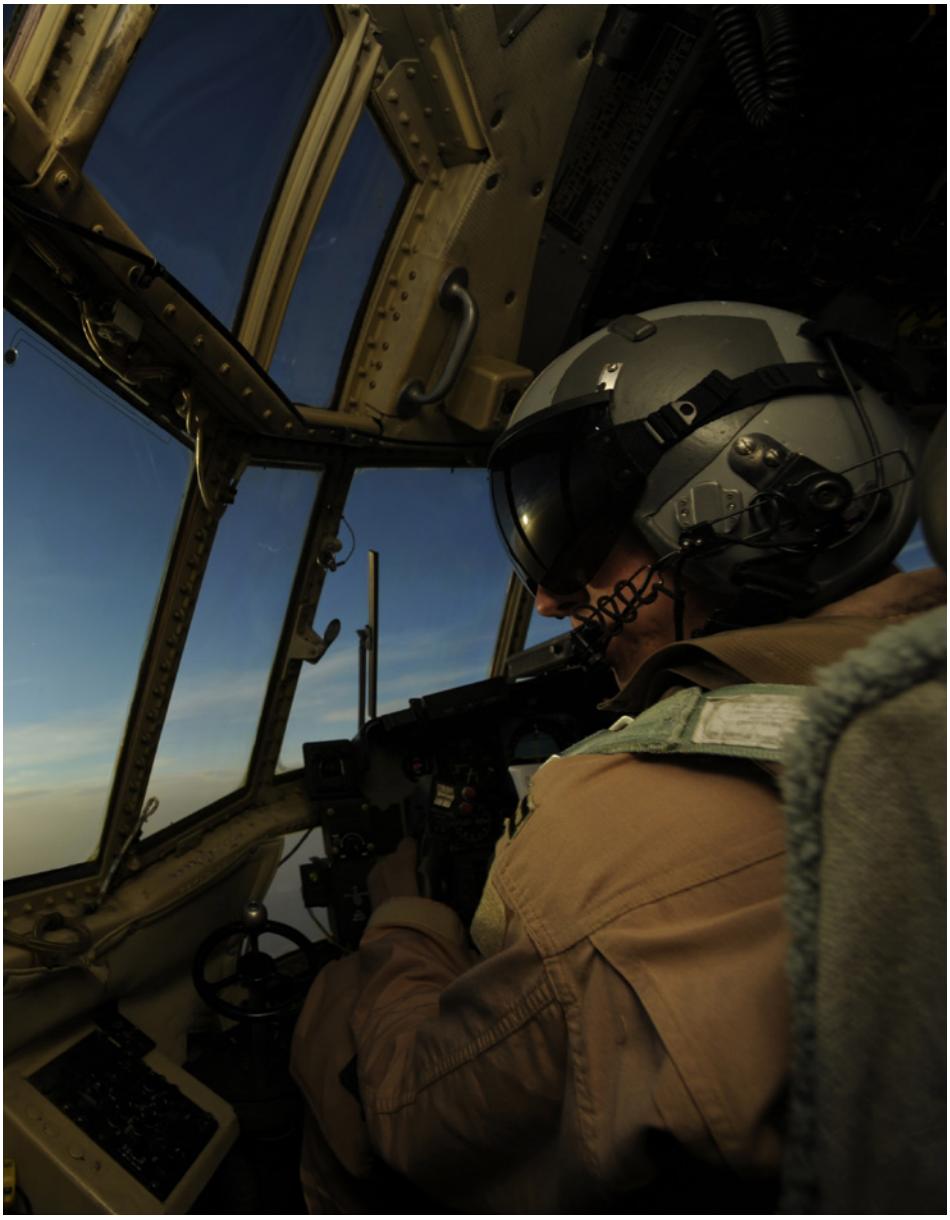
Accessing an Intelsat satellite also plugs users into the triple-redundant IntelsatOne fiber network that ensures global resilience for critical missions. In addition, Intelsat General's satellites include enhanced jamming mitigation.

Meeting Customer's Growing Needs

With network monitoring through our 24/7 Intelsat Secure Operations Center (ISOC), users are assured both high security and on-demand technical support for their FlexAir solution. At the ISOC, highly-trained satellite network engineers and technicians use state-of-the-art tools and technology to troubleshoot connectivity across Intelsat's satellite fleet. The center's staff, many of them from government and military backgrounds, work with users around the globe to provide new site activations, trouble notification, network performance records, and configuration-change management. And staff responds instantly to incoming trouble reports and advises customers of critical events.

How can reliable, secure HTS coverage for enroute and ISR aircraft communications help your teams? Let's talk.

Contact us at: sales.inquiries@intelsatgeneral.com
Learn more at: flexairgov.com



About Intelsat General

Intelsat General Communications (IGC) is a wholly owned subsidiary of Intelsat, the foundational architects of satellite technology. IGC provides government customers with mission-critical mobility communications solutions that include managed services with flexible pricing plans. From remote military outposts and disaster-recovery sites to U.S. embassies and homeland-security agencies, IGC solutions support and enable some of the most complex government applications. As the only commercial satellite operator with an independent third-party Service Organization Control (SOC 3) cybersecurity accreditation, Intelsat is uniquely positioned to help its government customers build a secure, connected future.

Imagine Here, with us, at www.intelsat.com/Intelsatgeneral

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