Providing Trusted and Secure **Satellite Solutions**, Globally

High-performance satellite connectivity in real time for your mission critical applications

INTELSAT General

U.S. commercial, government, and Allied military customers depend on Intelsat General (IGC) for high-quality, resilient and cost-effective satellite communications solutions via Intelsat's global satellite backbone and terrestrial infrastructure.

A U.S.-based, wholly owned subsidiary of Intelsat, the world's leading satellite operator, IGC crafts customized solutions derived from our extensive technical know-how and global reach. Our fleet of ~50 satellites cover 99% of the earth's populated regions, with over 36,000+ miles of terrestrial fiber optic cable and strategically located teleports and Points of Presence worldwide for truly redundant coverage. Our customers rely on IGC to provide secure and seamless broadband connectivity, video communications and mobility services for mission-critical operations through our open, inter-operable architecture.

Intelsat's administrative offices and the majority of its employees are located in the United States as are the Satellite Operations Center used to command and control the spacecraft, Intelsat's primary customer service center and Network Operations Center, and the Intelsat General Network Operations Center (ISOC).

We Offer:

- Global coverage using C-band, Ku-band, X-band, and UHF satellite capacity
- Intelsat Epic^{NG} next-generation satellite technology that delivers high-performance connectivity
- IntelsatOne terrestrial network that operates seamlessly with our satellite technology to support hybrid satellite and fiber connectivity, with access to multiple platforms and teleports
- 24/7 technical support and customer service
- Managed services that simplify satellite-based communications, and deliver the flexibility and support to meet changing customer requirements
- Strategic partnerships with technology leaders to support each of our market segments. And through our joint venture with OneWeb, we will offer the first and only fully global, pole-to-pole, high-throughput satellite broadband network.

99.995% Transponder availability

3x Fiber redundancy to/from teleports

8 Strategically located teleports

From remote military outposts, disaster recovery sites and embassies to health and homeland security agencies, our solutions enable even the most complex government and commercial applications.

Intelsat Epic^{NG} Platform

High-data rates using small mobility antennas are today uniquely possible with Intelsat Epic^{NG}, the first global Ku-band high-throughput satellite (HTS) platform. This platform is an innovative approach to satellite and network architecture utilizing C-, Ku-, and Ka-bands, wide beams, spot beams, and frequency-reuse technology to deliver more throughput per unit of spectrum. Designed as a complementary overlay, Intelsat Epic^{NG} is fully integrated with Intelsat's existing satellite fleet and our global IntelsatOne terrestrial network.

Intelsat Epic^{NG} is based on an open architecture and is engineered for backward compatibility, allowing our customers to realize high-throughput performance utilizing their existing hardware and network infrastructure. At the same time, increased control means the customer can define network topology, hardware and service characteristics.

Benefits:

- High performance and lower cost-per-bit to customers
- Wide beams and spot beams in the same band for broadcast and high-throughput
- C- and Ku-band frequencies aligned to region and application-specific requirements
- Open architecture and backward compatibility; use of existing network infrastructure and customer-preferred network topology for lower total cost
- Forward compatible as ground technology advances
- High throughput, efficiency and reliability enables smaller, mobility-friendly terminals supporting new applications such as mobility and aero, and benefiting data-centric services like cellular backhaul
- Advanced digital payload provides enhanced protection against jamming, interference, and other forms of information warfare through spot-beam technology, wider bandwidth beams and frequency notching
- Compatible with the U.S. Air Force's protected tactical waveform enabling an extra layer of defense for government communications and delivering more resiliency, more throughput and more efficient utilization of bandwidth

IntelsatOne Terrestrial Fiber Platform

IntelsatOne is a global terrestrial IP/MPLS-based network of 36,000+ miles of fiber, award-winning teleports, and numerous Points-of-Presence, fully integrated with one of the world's largest satellite fleets. The network offers one simple interface for secure, multiple high-bandwidth applications for a variety of managed, converged services and solutions. Government customers benefit from expanded service features available through IntelsatOne, including:

- Enhanced security, with Internet route-free core, traffic separation via MPLS-based VPN capabilities, and security embedded at the service layer
- Enhanced network products such as IPv6 next- generation IP services, DVB-S2 trunking and MPLS VPN
- Increased visibility and control of services operating across the Intelsat network
- Expanded range of value-added service offerings based on a single delivery platform
- Accelerated provisioning times for new services with minimal investment
- Terrestrial connectivity to Intelsat's award-winning teleport facilities and managed platforms
- True convergence, with voice, video and data solutions delivered over a single connection

Global coverage on the satellite industry's largest IP/MPLS terrestrial network

Deploy, monitor and engage across borders, sea, space, air and any other environment

Mobility Applications

Intelsat General delivers broadband mobile communications everywhere at speeds that dwarf legacy narrowband solutions. Our satellite services support a variety of Comms-on-the-move applications:

- Airborne manned and unmanned ISR
- Land and littoral communications
- Manpack Comms-on-the-Pause
- Beyond-line-of-sight rotary wing communications – free from rotor blade interference
- Low-SWaP solutions to accommodate Group III UAS
- Beyond Line of Sight (BLoS) for Tactical Networks (MANET,UHF, LTE)

IGC accommodates mobility platforms with antennas as small as 18" for high-data rate services like Full Motion and High Definition video with our new platform of high-throughput satellites (HTS), Intelsat Epic^{NG} and can also support 12" antennas on a beam-by-beam basis.

Our solutions are designed specifically for aircraft, tactical vehicles, vessels and manpacks – bringing high-speed connectivity to any moving platform, manned or unmanned. They leverage high-performance Ku-band technologies and include service options which can be tailored to the unique needs of each customer, such as private mobility networks and lower-cost shared services. In addition, we employ hub technologies featuring built-in AES encryption, ensuring secure communications and supported quality of service for voice applications and managed services.

Benefits:

- First Ku-band high-throughput satellite (HTS) platform with worldwide coverage
- Substantial increases in performance for small mobility platforms – up to 300% for Class 3 platforms
- User to user connectivity for terminals as small as 12 inches
- Overlapping Ku-band mobility beams for key mobile transport routes worldwide
- Always-on broadband at committed information rates and fixed costs
- Highest security standards in the industry meeting and/or exceeding all DoD information assurance recommendations

FlexAir

Data needs are increasingly unpredictable with global complexity and you need to ensure you have the right connectivity in the right place to accomplish your mission. FlexAir provides an affordable, flexible, secure and powerful way to stay connected. A variety of service plans allow you to determine your Quality of Service based on your data rate requirements, mission location and budget. Our FlexAir service is a global in-flight connectivity service designed for aircraft with high-performance requirements.

This service offers:

- **Global coverage** – a global Ku-band satellite network with the most advanced HTS technology
- **A Range of antennas** – compatibility with multiple fuselage and tail mount antennas
- **Flexible service options** – multiple service offerings adapted to different applications and requirements
- **An ecosystem of partners** – Network operations by IGC with end-user care by certified partners who provide value-added applications and technical expertise for specific airframes and missions.

FlexAir Subscription Packages

FlexAir Global – pay-as-you-go and monthly GB models for government aircraft

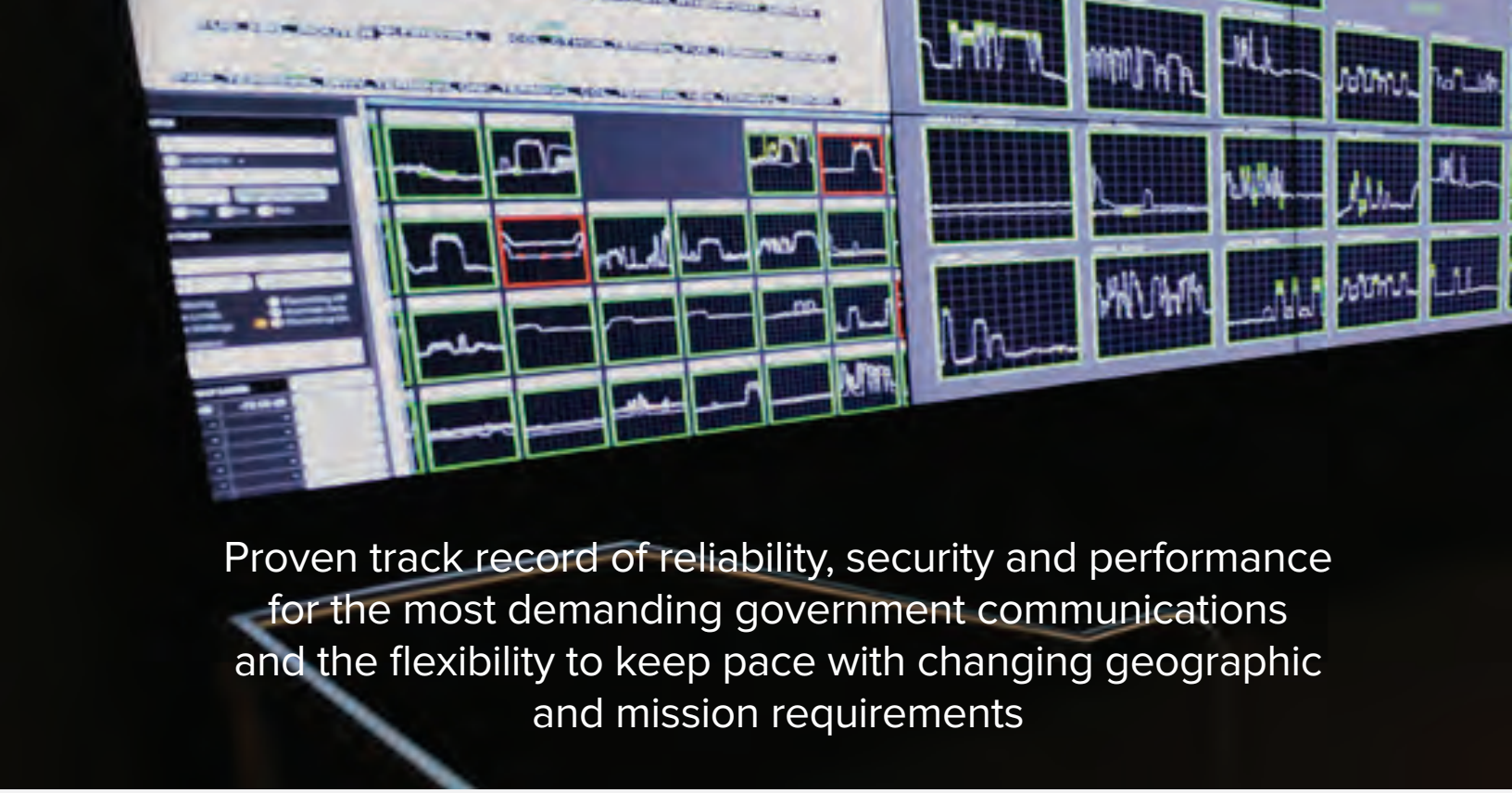
FlexAir ISR – Dedicated HTS capacity for Committed Information Rates for sensor data, video transmission and communications relay

The FlexAir service is managed from the Intelsat General Secure Operations Center in Atlanta, Georgia.

Rotary Wing Capabilities

Teaming with Hughes, IGC delivers beyond-line-of-sight rotary wing communications. Hughes' innovative waveform technology overcomes rotor blade interference providing you with the tactical edge for mission success.

Leveraging our Intelsat Epic^{NG} high-throughput platform, users can count on unprecedented speeds for HD video, sensor data, VoIP, and other critical data with zero packet loss. These capabilities support multiple mission sets including ISR, border security, law enforcement and disaster response.



Proven track record of reliability, security and performance for the most demanding government communications and the flexibility to keep pace with changing geographic and mission requirements

Security

We understand that mission critical applications require the highest levels of information-protection and cybersecurity. Our systematic defense-in-depth approach ensures the highest levels of protection making our end-to-end network infrastructure safe for any use.

Security and information assurance is an embedded culture within Intelsat. In the development of our space infrastructure and networks, Intelsat uses a systematic approach to detect, prevent and mitigate attacks, enhancing resilience and mission assurance.

Components of information security, such as authentication, access rights, and network security are covered in Intelsat's annual Sarbanes-Oxley compliance testing. Further, Intelsat commissions third parties to conduct annual penetration testing and comprehensive information security assessments every 18 months, with action taken to address and mitigate identified vulnerabilities.

Benefits:

- Compliance with the DoD's strict information cybersecurity standards, meeting and often exceeding DoD Instruction 8500.01 and NIST Risk Management Framework (RMF) cybersecurity recommendations.
- Only satellite operator with independent third-party Service Organizational Control 3 (SOC 3) accreditation, confirming that we maintain effective controls over our global satellite and terrestrial network and ensure that it is protected against unauthorized access, use or modification.
- End-to-end network security through complete control over our Intelsat terrestrial and space segments.
- Active involvement in security industry groups such as the CSIWG (Commercial Space INFOSEC Working Group), the GVF (Global VSAT Forum) Security Task Force and the COMM-ISAC (as an Industry Representative).

Intelsat General Secure Operations Center

The Intelsat General Secure Operations Center (ISOC) provides round-the-clock coverage for mission-critical support of government and commercial communications needs. Through the ISOC, our highly-trained satellite network engineers and technicians provide superior service and expertise. The ISOC is equipped with state-of-the-art tools and technology to monitor and troubleshoot connectivity with Intelsat's fleet. The center's engineers provide new site activations, RF interference mitigation, data recording and configuration-change management. The staff responds instantly to incoming trouble reports and advises customers of critical events by phone and e-mail.

Benefits:

- 24x7 network monitoring, carrier activation, trouble shooting and call management
- Technicians with security clearances to support satellite and terrestrial networks, adept at managing global integrated networks for high-demand customers
- Physically separate and segregated from corporate network with perimeter devices and firewalls
- Interference geo-location systems and trained staff
- Operations support at each teleport with around-the-clock help desk support
- Emergency response teams, back-up operations plans, post-disaster recovery plans for continuity and security of services
- Systems and procedures established to ensure customer anonymity
- The ISOC employs former government and military personnel, leveraging their unique expertise to maintain the Service Level Agreements we have with you

Hosted Payloads

Intelsat General has pioneered a unique and cost-effective option for getting assets into orbit quickly via Hosted Payloads, the integration of customer-defined and owned equipment with commercial satellites.

This expansion of the satellite's proposed payload can be in any frequency band, tailored to your specific requirements. Hosted Payloads not only provide you with on-orbit capacity in a shorter time than procuring a satellite of your own, they also provide tremendous cost savings with a shared bus, launch, operations and support.

We routinely launch multiple satellites each year as we maintain our global fleet of more than 50 spacecraft. This means you'll have access to multiple launches annually in a variety of orbital locations, providing flexibility in terms of timing, location, and types and sizes of payloads.

Hosted payloads are used for a variety of missions include communications, earth observation, remote sensing and R&D.

Benefits:

Reduced Costs and Timeline

- Leverage Intelsat's technical capabilities and investments
- Share a satellite bus with a commercial payload to reduce total cost of ownership
- Satellite flown and monitored by Intelsat throughout its lifecycle

Secure Access to Space

- Satellites in dozens of geosynchronous orbits around the globe
- Control through Intelsat's TT&C ground facility or remotely over an encrypted link
- Intelsat Secure Operations Center meets DoD Information Assurance standards
- Option for Customer-controlled payload

Typical Hosted Payload Program Schedule: 25.5-38 months (30-month avg.)

Current Hosted Payloads

- The FAA's GPS-based air navigation system – The payload supports service for all classes of aircraft in all phases of flight, including en route navigation, airport departures, and airport arrivals.
- The Australian Defence Force (ADF) – A UHF payload launched in early 2012 aboard the IS-22 satellite. The Australian government estimates that over the 15-year life of the payload, the military will save more than $150 million, compared to the cost of launching its own satellite.

Consulting And Management Services

Let the company that has set the standard in satellite design, launch and in-flight operations for over 50 years fly your satellites for less. You can depend on Intelsat General's highly skilled technical teams to support the many facets of your satellite programs.

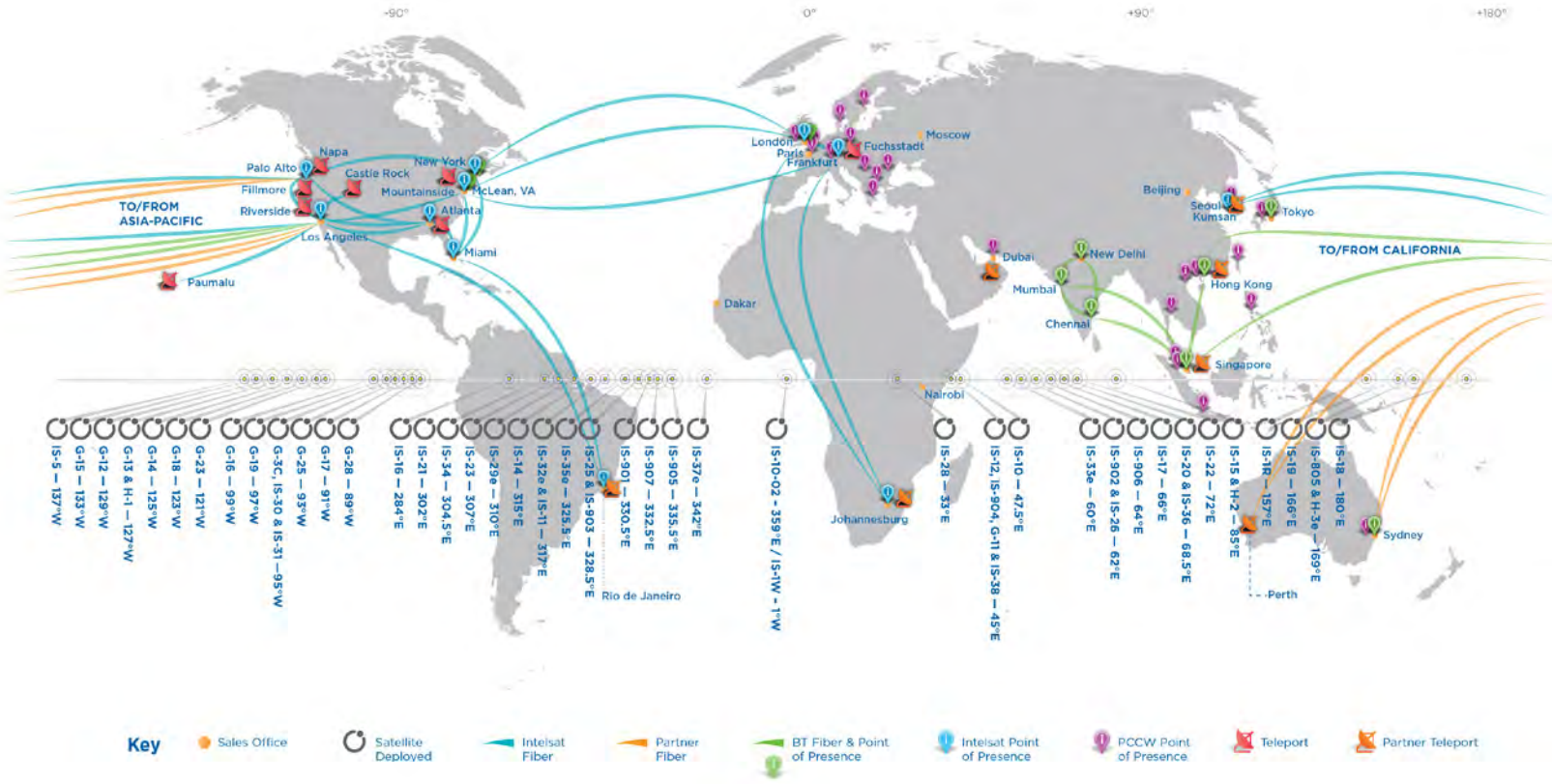
As operator of the world's largest satellite fleet, Intelsat has the design, build and in-flight expertise that spans all of the major spacecraft manufacturers. Our engineers understand the performance standards required to deliver today's satellite applications. You will benefit from access to one of the industry's most talented technical teams and the same resilient operations infrastructure used by Intelsat to operate its own global network.

We currently provide in-orbit operations for more than 75 satellites owned by Intelsat and third-party companies. Our network connects to more than 400 ground antennas at 20 locations worldwide, offering long-term satellite monitoring and control for a variety of customers. Our satellite controllers average decades of experience and undergo regular training to ensure they are top in their field to ensure the success of your mission.

Our services include:

- Spacecraft Consulting and Program Management
- Satellite Operations and Transfer Orbit Support (TOSS)
- In-Orbit Testing (IOT)
- Spacecraft Operations (TT&C)
- Infrastructure-as-a-Service (co-location, optimization, consolidation, relocation)

Intelsat Global Network



Intelsat General (IGC) is a wholly owned subsidiary of Intelsat, operator of the world's first Globalized Network. IGC provides its government and commercial customers with high quality, cost-effective, communications solutions via Intelsat's leading satellite backbone and terrestrial infrastructure. Our customers rely on IGC to provide secure and seamless broadband connectivity, video communications, and mobility services for mission critical operations anywhere on the globe through our open, interoperable architecture.

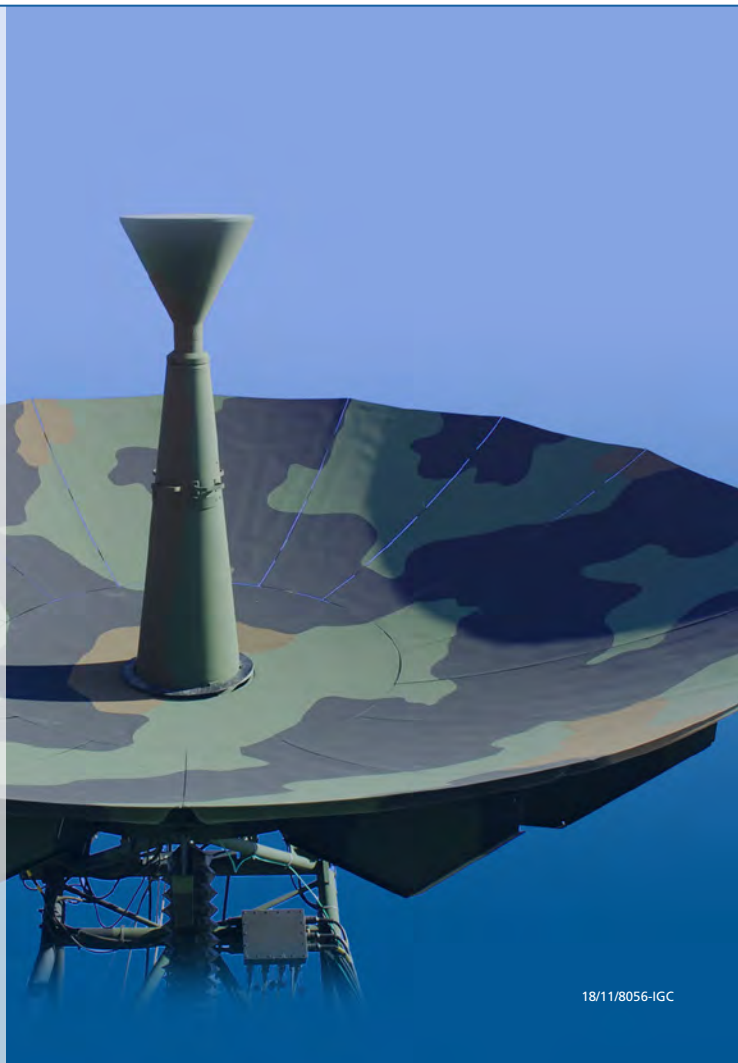
We support the full range of en-route communications at broadband speeds, including intelligence, surveillance and reconnaissance applications. Whether you're maneuvering on land, sea or air, our C-, Ku- and X-band mobility solutions provide capacity, coverage and connectivity for converged voice, data and video applications.

From remote military outposts, disaster recovery sites and embassies to health and homeland security agencies, Intelsat General's solutions support even the most complex operations, from routine to mission critical, anywhere on the globe.

For further information please contact:
sales.inquiries@intelsatgeneral.com

www.intelsatgeneral.com

INTELSAT General



18/11/8056-IGC