# Global Satellite Communications For The World's Militaries

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Government and defence operations in the information age operate in an environment of dynamic coalitions, complex interoperability and security needs, where access to processed and interpreted data is a force multiplier.

The key to successful options is a short time from data to knowledge and then access to deployed assets through resilient communications systems.

Satellite communications support rapid decision making, interoperability via the terrestrial network, big data sharing, ISR, C2 battle management and personnel welfare.



Intelsat General delivers broadband mobile communications everywhere at speeds that dwarf legacy narrowband solutions. We support the full range of mobile communications, including manned and un-manned mission-critical Intelligence, Surveillance and Reconnaissance (ISR) applications. Whether maneuvering on land, sea or air, our C-, Ku-, X-band and UHF mobility solutions provide capacity, coverage and connectivity for converged voice, data and video applications. Customers can maintain complete situational awareness through Intelsat General's real-time network visibility tool.

#### **FEATURES**

Intelsat's Globalized Network has a 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 from routine to critical.

#### As our customer, you have the ability to:

- Deploy, monitor and engage across borders, land, sea and air
- Depend on 24/7/365 battle-tested security via the Intelsat Secure Operations Center (ISOC)
- Access and maintain connectivity in even the most remote locations for field operation readiness
- Benefit from truly ubiquitous coverage to conduct any operation, anywhere without interruption
- Collect/transmit data and video in real time for any initiative



#### **ONE-OF-A-KIND**

The Intelsat Globalized Network is the first and only network of its kind, letting anyone connect with anyone else, anywhere on the planet. How do we do it? We bring all these capabilities into a single ecosystem that integrates our:

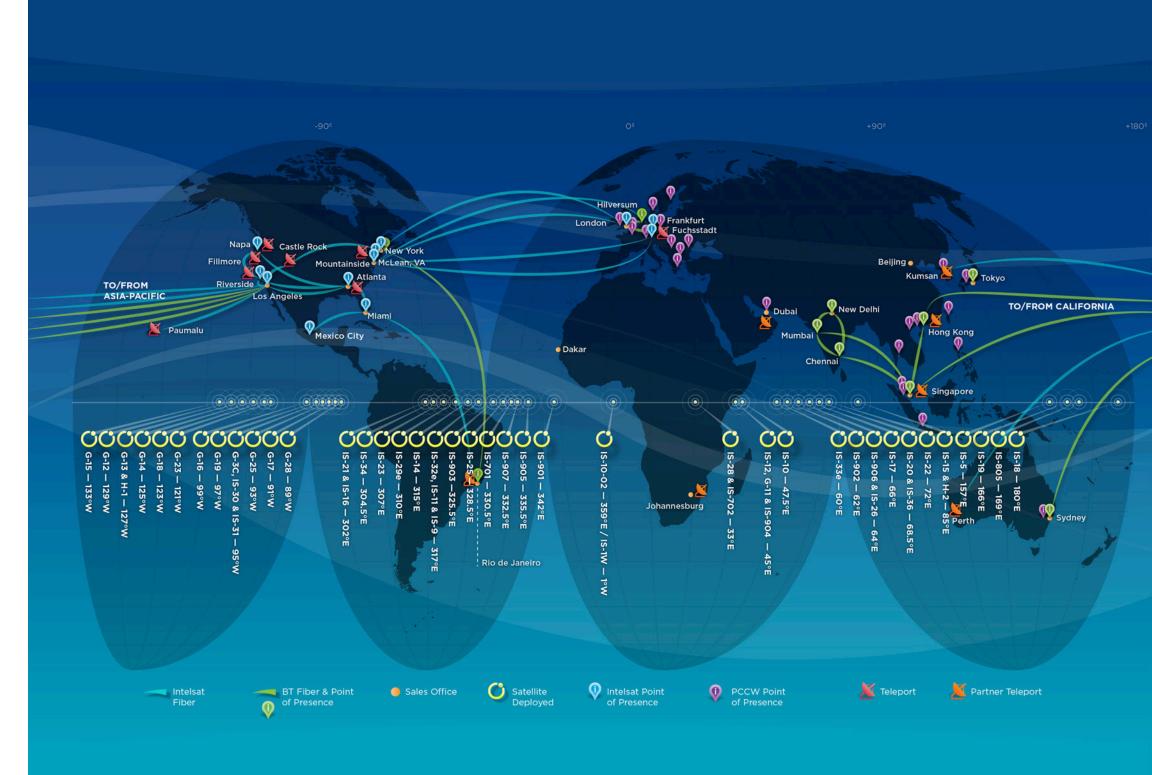
Fleet of more than 50 satellites plus teleports that provides the world's most extensive and secure communications network.

Intelsat Epic<sup>NG</sup> next-generation satellite technology that delivers the high-performance connectivity required by today's demanding applications.

IntelsatOne<sup>®</sup> terrestrial network that operates seamlessly with our satellite technology to support hybrid satellite and fiber connectivity, with access to multiple platforms and teleports.

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. Through our joint venture with OneWeb, we will offer the first and only fully global, pole-topole, high-throughput satellite broadband network.



### **NEW TECHNOLOGY**

The Intelsat Epic<sup>NG</sup> high-performance platform is an innovative approach to satellite and network architecture utilizing Cand Ku-bands, wide beams, spot beams, and frequency-reuse technology to deliver more throughput per unit of spectrum. Designed as a complementary overlay to the Intelsat satellite network, Intelsat Epic<sup>NG</sup> is fully integrated with Intelsat's existing satellite fleet and global IntelsatONE terrestrial network.

Intelsat Epic<sup>NG</sup> 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 you can offer your end users customized, differentiated solutions by defining 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
- 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 as small as 18cm
- Inherent protection from interference, jamming and other forms of information warfare



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### **SECURITY**

Intelsat General understands that our customers' mission-critical applications often require the highest levels of information assurance and cyber-security, which is why we ensure our communications solutions incorporate the most secure and reliable protection available today and meet stringent DoD specifications in the DoDI 8500 series.

A resilient distributed SATCOM architecture and access to the latest technology keeps your mission critical information secure.

We are the only satellite operator with SOC 3 third-party accreditation.

Ultra-high availability and multi-layer redundancy provides the ability to move and stay connected anywhere in the world, without sacrificing the quality of communication.

The Intelsat General Secure Operations Center (ISOC) provides round-the-clock coverage for missioncritical support of its commercial, government and military customers. Through the ISOC, our highlytrained satellite network engineers and technicians provide superior expertise to our customers and their end-users.

The ISOC is equipped with state-of-the-art tools and technology to monitor and troubleshoot connectivity with Intelsat's fleet of approximately 50 satellites and our IntelsatONE terrestrial network. The center's engineers work with both customers' technicians and end-users to facilitate new site activations, trouble notification, data recording and configuration-change management. The staff responds instantly to incoming trouble reports and advises customers of critical events by telephone and via e-mail.

#### We Provide

- one of the world's most secure network operations facilities
- Defense-in-depth design and delivery from proven information assurance experts
- Operations support at each teleport with around-the-clock Help Desk support
- Emergency response teams, back-up operations plans, and post-disaster recovery plans for continuity and security of services

The ISOC also employs former government and military personnel, leveraging their unique expertise to maintain our Service Level Agreements with our customers.

For more information, download our white paper "Security in Space" from our website: http://intelsatgeneral.com/resources/whitepaper/security-space-intelsat-information-assurance

• 24/7/365 monitoring and proactive security in the Intelsat Secure Operations Center (ISOC),

• Established systems, processes and procedures to ensure customer anonymity and force protection

## **MOBILITY SOLUTIONS**

**Highly reliable communications on the move** – manned and unmanned solutions for mission critical applications.

**Broadband mobile connectivity** – always on broadband access for airborne, maritime, man-pack and land-mobile applications serving en-route, ISR, situational awareness and remote operations.

**Real-time monitoring** – SatView, our real-time monitoring tool allows you to see your network and manage it directly.

**Global coverage** – seamless network of Ku-band mobility beams for coverage where and when you need it.

**High performance** – high speed connectivity using antennas as small as 18cm.

**Fiber backhaul on an IP/MPLS-based network** – 36,000+ miles of terrestrial fiber lines connecting your global operations centers.

Our solutions are designed specifically for aircraft, motor vehicles, land mobile and vessels – bringing high-speed connectivity to any moving platform, manned or unmanned. They leverage Ku-band, X-band, UHF, iDirect, and Comtech EFData 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, our hub technologies feature built-in AES encryption, ensuring secure communications and supported quality of service for voice applications.



### **OUR EXPERIENCE**

#### **Commercial Broadband Satellite Program (CBSP)**

The CBSP contract was a satellite communications network for the U.S. Navy's Space and Naval Warfare Systems Command (SPAWAR). This five-year contract provided worldwide commercial telecommunications services to the U.S. Navy's fleet of ships, including C-, Ku-, and X-band satellite connectivity, teleport uplink and downlink, fiber connectivity for terrestrial backhaul, and bandwidth management services.

#### NATO BOA No. NC3A 11407

Intelsat General is approved to participate in the NATO International Competitive Bidding (ICB) and is on the bidders list for Continuation of Communications Services, in Theatre O&M, Training and Related Services to be supplied for the ISAF Force Tracking System (IFTS) (IFB-NCIA-NCHQ-14-14). For more information, please visit www.fbo.gov.

#### **Australian Defence Force (ADF)**

The Australian Defense Force turned to Intelsat General for a UHF hosted payload aboard IS-22 launched in 2012. The IS-22 hosted payload delivered substantial reductions in cost and time to capability for the Australian military. Leasing the UHF bandwidth would have cost the Australians 180 percent more than the hosted solution, and procuring a new satellite would have cost them twice as much. 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. The payload was launched within three years or the contract signing.



# **CURRENT CUSTOMERS INCLUDE**





# **CASE STUDIES**

For examples of our current military customer networks, please visit these four case studies on our website at:

intelsatgeneral.com/case-studies/by-light-and-intelsat-general-provide-link-that-gets-military-supplies-to-afghanistan

intelsatgeneral.com/case-studies/waas-hosted-payload-on-galaxy-15 intelsatgeneral.com/case-studies/igc-and-3di-team-up-to-support-iraqi-military-network intelsatgeneral.com/case-studies/enhanced-communications-for-australias-deployed-forces Rick Ching Global Government (Asia Pacific) Rick.ching@intelsat.com 460 Alexandra Road #25-03 PSA Building Singapore 119963 Tel: +65 6572.5446

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