



IntelSat General and L-3 Communication Systems-West Successfully Demonstrate Automatic Beam Switching for Unmanned Aerial System on IntelSat EpicNG

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MCLEAN, Va.--(BUSINESS WIRE)--Mar. 7, 2016-- IntelSat General Corporation (IGC), a wholly owned subsidiary of IntelSat S.A. (NYSE: I), operator of the world's first Globalized Network, powered by its leading satellite backbone, and L-3 Communication Systems-West (L-3 CS-West) announced today the successful demonstration of new automatic beam switching technology that enables Unmanned Airborne Systems (UAS) fitted with L-3 CS-West satellite communications packages to operate on IntelSat's high-throughput satellite (HTS) platform, IntelSat Epic^{NG}. This software upgrade was funded and developed through a partnership between IGC and L-3 CS-West to ensure that the existing unmanned aircraft systems (UAS) platforms can take advantage of the 3x-4x throughput improvement that IntelSat Epic^{NG} enables. This demonstration was part of IntelSat's ongoing ecosystem work validating the compatibility of existing hardware with IntelSat's Epic^{NG} high-throughput satellites.

This over-the-satellite demonstration was conducted on IntelSat's Horizons-1 satellite using three separate bandwidth segments and a navigation simulator representing a UAS flying through three separate high-throughput spot beams on a single IntelSat Epic^{NG}-class satellite.

Using an L-3 CS-West hub and terminal modems for the end-to-end test, engineers measured the performance of full-motion video and IP data between the UAS and the hub controller as the system automatically switched both frequency and polarization while the aircraft flew through the three separate beams.

The new IntelSat Epic^{NG} satellites are designed to increase UAS data rate performance by 200 to 300 percent via their high-throughput spot beams and enable broadband performance to antennas with apertures smaller than 30 cm. This demonstration validated that the UAS could automatically switch between these beams without user intervention, thereby simplifying operations while fully leveraging this increased throughput.

"Through our collaboration with IntelSat, both airborne and ground users will be able to upgrade the software on existing L-3 wideband modems to provide automatic beam switching capabilities for service on high-throughput satellites like IntelSat's Epic^{NG}," said Andy Ivers, president of L-3 Communication Systems-West. "These results mark an important milestone in providing our customers the ability to modernize their existing assets within today's fiscally constrained defense budget environment."

"This demonstration proves that modems using beam-switching technology will support UAS operations at very high data rates on high-throughput satellites," said Skot Butler, vice president, Satellite Networks & Space Services at IntelSat General. "This capability is an important step in the evolution of satellite communications for these critical platforms. IntelSat's Epic^{NG} also provides inherent protection from signal jamming and greater throughput for full-motion video and other bandwidth-hungry payloads."

Following this successful demonstration, IntelSat General and L-3 CS-West plan to conduct further tests with user platforms employing the recently launched IntelSat Epic^{NG} IS-29 satellite.

IntelSat Epic^{NG} is a high performance, next generation satellite platform that delivers global high-throughput technology via an innovative approach to satellite and network architecture utilizing C-, Ku- and Ka-bands, wide beams, spot beams, and frequency reuse technology to provide a host of customer-centric benefits. The IntelSat Epic^{NG} series digital payload will be instrumental in allowing flexible and efficient use of spectrum, resulting in a dramatic increase in the amount of throughput delivered on these satellites. IntelSat Epic^{NG} is based on open architecture and engineered for backwards compatibility, allowing [broadband](#), [media](#), [mobility](#) and [government](#) organizations to realize the cost-efficiency of using existing hardware. At the same time, increased control means these organizations can build on their success by offering their end-users customized, differentiated solutions — even defining such service characteristics as speed, hardware and network topology.

See the demo video [here](#).

About IntelSat General Corp.

IntelSat General provides satellite communications solutions to military, commercial and government customers over IntelSat's fleet of approximately 50 satellites and a global terrestrial network of teleports and fiber infrastructure. IntelSat General also offers these customers the option of placing a dedicated hosted communications payload aboard an IntelSat satellite. From remote military outposts, disaster recovery sites and U.S. 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. These solutions address the numerous communications challenges inherent in a wide range of applications. From Airborne ISR/UAV scenarios to Distance Learning to Logistics, IntelSat General engineers can enhance government, military and commercial communications to allow customers to achieve their mission objectives. www.intelsatgeneral.com

About IntelSat

IntelSat S.A. (NYSE: I) operates the world's first Globalized Network, delivering high-quality, cost-effective video and broadband services anywhere in the world. IntelSat's Globalized Network combines the world's largest satellite backbone with terrestrial infrastructure, managed services and an open, interoperable architecture to enable customers to drive revenue and reach through a new generation of network services. Thousands of organizations serving billions of people worldwide rely on IntelSat to provide ubiquitous broadband connectivity, multi-format video broadcasting, secure satellite communications and seamless mobility services. The end result is an entirely new world, one that allows us to envision the impossible, connect without boundaries and transform the ways in which we live. For more information, visit www.intelsat.com.

About L-3 Communication Systems-West

L-3 Communication Systems-West (L-3 CS-West) is a leader in communications systems for high-performance intelligence collection, imagery processing and satellite communications for the DoD and other government agencies. The company provides high data rate, wideband, protected, real-time communications systems for surveillance, reconnaissance and other airborne intelligence collection systems. To learn more about L-3 CS-West, please visit the company's website at www.L-3com.com/csw.

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