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Thales and SES Select Hughes for Next-Generation Aviation Connectivity Network to Provide Increased Capacity, Coverage and Redundancy over the Americas

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- 1 SES contracts Hughes for service on EchoStar XVII and EchoStar XIX HTS satellites, and combines them with its AMC-15 and AMC-16 network, to provide a four-satellite constellation for the launch of Thales FlytLIVE network
- 1 The four-satellite network strengthens Thales' FlytLIVE network as it enters initial operations in 2017 and in advance of the milestone launch of SES-17 Ka-band HTS satellite, planned for 2020
- 1 SES to purchase multiple JUPITER System gateways from Hughes and contract ground segment operations to Hughes to bring seamless connectivity to Thales FlytLIVE network
- 1 Thales selects Hughes JUPITER System Aeronautical platform for its next-generation IFC solution



Today, Thales, SES S.A. and Hughes Network Systems (HUGHES) announced a set of strategic agreements to enhance the delivery of FlytLIVE™ - Thales' connected inflight experience solution, offering the most advanced and efficient aeronautical connectivity solution available in the Americas. Under the agreements, SES contracts capacity on Hughes EchoStar XVII and EchoStar XIX high throughput (HTS) Ka-band satellites to complement its AMC-15 and AMC-16 network giving FlytLIVE the only redundant coverage network in North America. SES will also purchase multiple JUPITER™ System gateways from Hughes to qualify Thales to deploy its FlytLIVE service on Hughes JUPITER Aeronautical platform. This will allow Thales to initiate its next-generation connected inflight experience offering in North America this year.

Furthermore, the system being deployed is forward compatible with SES-17, SES' powerful Ka-band HTS satellite optimized for aviation connectivity and expected to launch in 2020, thus ensuring Thales' airline clients have a clear and effective path for accommodating the ever-growing traffic demands of their passengers.

FlytLIVE by Thales provides an advanced, seamless inflight connectivity solution with unmatched performance and redundancy, giving passengers the full broadband Internet connectivity, including the ability to stream Internet services for video, games, social media and live television, creating an immersive and engaging experience in the air. In addition, this new service enables airlines to upload content, download operational data, and provide live television channels to their entire fleet through managed end-to-end solutions and network services.

In 2016, SES and Thales announced an agreement to procure and commercialize SES-17 and to leverage SES' existing AMC-15 and AMC-16 satellites for FlytLIVE. This new set of strategic agreements between SES, Thales and Hughes provide Thales with an expanded scope of HTS Ka-band satellite capacity and the latest and most advanced aeronautical platform available today. The combination of Hughes EchoStar XVII and XIX Ka-band satellites with SES' AMC-15 and AMC-16 network provide for expanded satellite capacity, coverage, and redundancy over North America. With these four satellites and the Hughes JUPITER System aeronautical platform, Thales will be positioned to offer the most comprehensive connectivity and content services for the full gamut of North American flight routes, including routes between the North East U.S. and Canada and the Caribbean, which to-date have been underserved as these flight routes are predominantly over open ocean. This combination of coverage, performance, redundancy, and network robustness will be unique to FlytLIVE.

At the center of the new service is Hughes high-performance JUPITER system that is already in operation for broadband enterprise and consumer services in other major markets globally and will be introduced for aeronautical use on the Thales FlytLIVE network. Unique features of the network include rapid beam-to-beam and satellite-to-satellite switching and DVB-S2x transmission. Thales has already begun service testing using its new Thales Ka-band aero antenna and the Hughes JUPITER technology.

SES will also purchase multiple Hughes JUPITER System gateways to support traffic carried over AMC-15 and AMC-16, as well as SES-17, when it enters service. FlytLIVE's network will deliver industry leading speed and capacity for support of

growing passenger service demands and will comfortably accommodate forecasted traffic increases through the launch of SES-17, which is manufactured by Thales Alenia Space and configured with close to 200 spot beams and coverage tailored to aviation and mobility markets.

"Our experience and position as a global leader in satellites, avionics, cybersecurity and connected inflight entertainment means we are able to deliver the most capable solutions our customers expect. With these strategic agreements with SES and Hughes, Thales FlytLIVE service will be uniquely able to deliver airlines and their passengers with an unsurpassed, connected inflight entertainment experience."

| Dominique Giannoni, CEO, Thales InFlyt Experience

"This agreement confirms once again SES's ability to provide scalable solutions tailored to match our customers' specific requirements. Not only are we developing SES-17, a next-generation satellite that Thales will use to meet the future inflight connectivity demands of the next decade, but we are also providing a superior, tailor-made, multi-satellite and multi-beam solution today, in 2017, utilizing assets already in orbit. This is only possible thanks to the combination of our existing robust and flexible network with our long-standing relationship with Hughes and Thales."

| Elias Zaccack, Senior Vice President of SES's Global Mobility Team and the Americas region, SES S.A.

"Hughes is proud to join with Thales and SES to bring our advanced JUPITER System aeronautical platform, along with the enhanced satellite coverage and capacity of our EchoStar XVII and XIX satellites, to facilitate the launch and operation of FlytLIVE's North American service. Our JUPITER platform will enable SES and Thales to deliver an unmatched level of inflight connectivity customer experience, and the capacity brought through our satellites will ensure that Thales' airline clients will be able to readily accommodate the ever-growing demands and performance expectations of their passengers."

| Paul Gaske, Executive Vice President, North America, Hughes

About Thales

Thales is a global technology leader for the Aerospace, Transport, Defense and Security markets. With 62,000 employees in 56 countries, Thales reported sales of \$15.5 billion in 2015. With over 20,000 engineers and researchers, Thales has a unique capability to design and deploy equipment, systems and services to meet the most complex security requirements. Thales' unique international footprint allows it to work closely with customers all over the world.

About SES S.A.

SES is the world-leading satellite operator and the first to deliver a differentiated and scalable GEO-MEO offering worldwide, with more than 50 satellites in Geostationary Earth Orbit (GEO) and 12 in Medium Earth Orbit (MEO). SES focuses on value-added, end-to-end solutions in four key market verticals (Video, Enterprise, Mobility and Government). It provides satellite communications services to broadcasters, content and internet service providers, mobile and fixed network operators, governments and institutions, and businesses worldwide. SES's portfolio includes the ASTRA satellite system, which has the largest Direct-to-Home (DTH) television reach in Europe, and O3b Networks, a global managed data communications service provider. Another SES subsidiary, MX1, is a leading media service provider and offers a full suite of innovative digital video and media services. Further information available at: www.ses.com

About Hughes Network Systems

Hughes Network Systems, LLC (HUGHES) is the global leader in broadband satellite technology and services for home and office. Its flagship high-speed satellite Internet service is HughesNet®, the world's largest satellite network with over 1 million residential and business customers across North America and Brazil. For large enterprises and governments, the company's HughesON® managed network services provide complete connectivity solutions employing an optimized mix of satellite and terrestrial technologies. The JUPITER™ System is the world's most widely deployed High-Throughput Satellite (HTS) platform by leading providers operating on more than 20 satellites, delivering a wide range of enterprise, mobility and cellular backhaul applications. To date, Hughes has shipped more than 5.5 million satellite systems to customers in over 100 countries, representing approximately 50 percent market share, and its technology is powering broadband services to aircraft around the world.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations. For additional information about Hughes, please visit www.hughes.com and follow [@Hughes_Corp](https://twitter.com/Hughes_Corp) on Twitter.

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