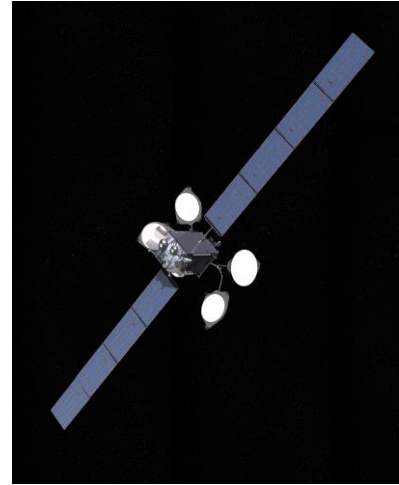


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SES-15

Description and Purpose: In 2015, SES ordered a Boeing 702SP (small platform) all-electric propulsion satellite for its new orbital location to serve North America, Latin America and the Caribbean. The satellite will enable SES to serve its leading aeronautical customers in providing in-flight internet connectivity for aircraft and serve other traffic-intensive data applications such as government, VSAT networks and maritime.



Customer: Continuing a relationship spanning more than 25 years, SES, a world-leading satellite operator providing reliable and secure satellite communications solutions, ordered its 12th satellite from Boeing, and the first of the all-electric propulsion satellites.

General Characteristics: Scheduled for delivery in 2017, SES-15 is designed to generate up to 8 kilowatts of payload power during its 15-year design life. SES-15 will carry a hybrid payload, with additional Ku-band wide beams and Ku- as well as Ka-band High Throughput Satellite (HTS) capability. The Boeing all-electric 702SP carries the xenon ion propulsion system (XIPS) for both orbit-raising and on-orbit maneuvering. In addition, SES-15 will also carry a Wide-Area Augmentation System (WAAS) hosted payload for the U.S. Federal Aviation Administration (FAA) to enhance aviation safety.

702SP Advantages:

- Operates in the low- to mid-power ranges of 3 to 9 kilowatts.
- Features the all-electric xenon-ion propulsion system (XIPS), which minimizes spacecraft launch mass and maximizes available payload.
- Able to accommodate up to five reflectors, the 702SP provides additional mission flexibility to its operators and broader services to users.
- Features a next-generation avionics architecture, which simplifies operations and provides improved access to data for evaluation of the spacecraft's health.

The 702SP's lightweight system design accommodates launch on most commercial launch systems, including Falcon 9, Ariane 5, Sea Launch, Proton, Soyuz, Atlas 5 and Delta IV. Because of its lower mass and weight, in some cases two 702SP satellites can be orbited on a single launch vehicle, resulting in a cost savings when compared with existing single launch options.

The Boeing 702SP can operate in the S-, L-, X-, C-, Ku, and Ka-band frequencies and, as with all Boeing 702s, is designed to provide 15 or more years of satellite service with additional fuel capacity to enable multiple station changes over the life of the satellite.

Background: Beginning in 1990, Boeing has built 11 satellites for SES. SES ordered its first satellite from Boeing, called Astra 1C, in late 1990; followed in late 1991 by an order for a second spacecraft, Astra 1D; in 1992 for Astra 1E; in 1993 for Astra 1F; in 1994 for Astra 1G; in 1995 for 1H; and in 1996 for 2A. In August 1999, SES ordered two new satellites, Astra 2C, a 601HP, and Astra 2D, a 376 model; followed by ASTRA 3A, another 376, in August 2000. In 2012, SES ordered SES-9, which was launched in 2016.

Miscellaneous: SES is the world-leading satellite operator that provides satellite communications services to broadcasters, content and internet service providers, mobile and fixed network operators and business and governmental organizations worldwide. SES stands for long-lasting business relationships, high-quality service and excellence in the satellite industry. The SES satellites are controlled from the SES ground stations in Betzdorf, Luxembourg; Woodbine, Maryland; and Gibraltar, United Kingdom. SES holds a participation in O3b Networks, a next generation satellite network combining the reach of satellite with the speed of fiber.

For more information on SES and SES-15: www.ses.com and <http://www.ses.com/20641706/ses-15>.

Boeing Commercial Satellite Systems (CSS), located in El Segundo, Calif., is the world's leading producer of commercial satellites. The world's first geosynchronous communications satellite, Syncom, was built by Boeing and launched in 1963. Boeing has delivered more than 170 commercial satellite systems, and with the 702HP, MP and SP product lines Boeing can support payloads ranging from 3 to 18 kilowatts. Boeing builds satellites at its Satellite Development Center in El Segundo, the world's largest satellite factory.

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