

SES-8

Hybrid Ku-band and Ka-band Commercial Communications Satellite



Mission Description

SES-8, a hybrid Ku- and Ka-band spacecraft, is the sixth GEOStar-2™ satellite ordered by SES S.A. The satellite is based on Orbital ATK's Enhanced GEOStar-2 bus, and carries 24 active Ku-band transponders of 36 or 54 Mhz capacity switchable amongst 33 channels and two beams. Certain channels in each beam are cross-strapped to multiple frequency bands, enabling flexibility for new services. In addition, the spacecraft features a Ka-band payload. The spacecraft generates approximately five kilowatts of payload power and features two 2.5 x 2.7 meter super elliptical deployable reflectors and a 1.45 meter fixed, deck-mounted antenna.

The GEOStar™ Advantage

Orbital ATK's highly successful Geosynchronous Earth Orbit (GEO) communications satellites are based on the company's GEOStar spacecraft platform, which is able to accommodate all types of commercial communications payloads and is compatible with all major commercial launchers. The company's GEOStar product line includes the GEOStar-2 design, which is optimized for smaller satellite missions that can support up to 5.0 kilowatts of payload power. Orbital ATK has also developed the higher-power GEOStar-3 spacecraft design, delivering the next increment of payload power for applications between 5.0 and 8.0 kilowatts, allowing Orbital ATK to offer its innovative and reliable satellite design to the medium-class of communications satellites.

FACTS AT A GLANCE

Coverage:

South Asia and Indo-China



Mission:

Ku-band communications for South Asia and Indo-China

Ka-band communications for the Asia-Pacific region

Customer:

SES



SES-8 in Orbital ATK's Dulles, Virginia satellite manufacturing facility

SES-8

Specifications

Spacecraft

Launch Mass:	3,200 kg (7,055 lb.)
Solar Arrays:	Four panels per array, UTJ Gallium Arsenide cells
Stabilization:	3-axis stabilized
Propulsion:	Monopropellant (hydrazine) on-orbit system
Batteries:	Two >4840 W-Hr capacity Li-Ion batteries
Mission Life:	15 years
Orbit:	95° East Longitude

Payload

Ku-band

Repeater:	24 active transponders with one group of 18-for-15; one group of 12-for-9 TWTAs
TWTA Power:	120 W RF
Antenna:	Two 2.5 x 2.7 m single shell super-elliptical deployable reflectors; one 1.45 m single shell deck-mounted

Launch

Launch Vehicle:	Falcon 9
Site:	Cape Canaveral, Florida
Date:	December 3, 2013

Mission Partners

SES

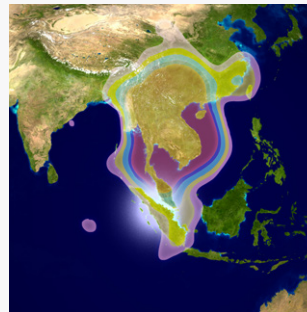
A leading global satellite operator providing a broad range of communications services

Orbital ATK

Prime contractor for the SES program

Coverage Contour Maps

Indo-China EIRP 95° East Longitude



South Asia EIRP 95° East Longitude

