

GSAT-16 Mission

07 December, 2014

THE MISSION

India's Communication Satellite GSAT-16 on-board the Ariane-5 VA-221 lifted-off from Kourou, French Guiana at 02:10 AM (IST) on December 07, 2014. After a flight of 32 minutes and 20.4 seconds duration, GSAT-16 was placed into Geosynchronous Transfer Orbit (GTO).

After its injection into GTO, ISRO's Master Control Facility (MCF) at Hassan took control of the satellite and performed the initial orbit raising manoeuvres using the satellite's on-board Liquid Apogee Motor (LAM), finally placing it in the vicinity of circular Geostationary Orbit. After this, the deployment of appendages such as the solar panels, antennas and three axis stabilization of the satellite were performed. GSAT-16 is positioned at 55° East longitude in the Geostationary Orbit.

GSAT-16 is an advanced communication satellite, inducted into the INSAT-GSAT system.



Ariane-5 VA-221

GSAT-16

THE SATELLITE

GSAT-16 is configured to carry a total of 48 communication transponders, the largest number of transponders carried by a communication satellite developed by ISRO so far, in normal C-band, upper extended C-band and Ku-band. GSAT-16 carried a Ku-band beacon as well to help accurately point ground antennas towards the satellite.

The communication transponders on-board GSAT-16 together ensure continuity of various services currently provided by INSAT-GSAT system and serve as on-orbit spares to meet contingency requirements or for the augmentation of such services.

SPECIFICATIONS

Weight	3181.6 kg
Power	6000 W, Two 180 Ah Li-Ion batteries
Stabilisation	3-axis stabilisation
Type of Satellite	Communication
Payloads	<ul style="list-style-type: none">• 12 Ku-band transponders each with 36 MHz usable bandwidth with footprint covering Indian mainland and Andaman & Nicobar Islands• 24 C-band transponders each with 36 MHz usable bandwidth with footprint covering Indian mainland and island territories• 12 Upper Extended C-band transponders each with 36 MHz usable bandwidth with footprint covering Indian mainland and island territories
Mission Life	12 Years

