

GSAT-18 Mission

06 October, 2016

THE MISSION

India's Communication Satellite GSAT-18 on-board the Ariane-5 VA-231 lifted-off from Kourou, French Guiana at 02:00 AM (IST) on October 06, 2016. After a flight of 32 minutes and 28 seconds, GSAT-18 separated from the Ariane 5 upper stage in an elliptical Geosynchronous Transfer Orbit (GTO) with a perigee of 251.7 km and an apogee of 35,888 km, inclined at an angle of 6° to the Equator. After its injection into GTO, ISRO's Master Control Facility (MCF) at Hassan took control of GSAT-18 and performed the initial orbit raising manoeuvres using the Liquid Apogee Motor (LAM) of the satellite, placing it in circular Geostationary Orbit.

GSAT-18 carried 48 communication transponders to provide services in Normal C-band, Upper Extended C-band and Ku-band beacon as well to help in accurately pointing ground antennas towards satellite.



Ariane 5

GSAT-18

THE SATELLITE

GSAT-18 is a high power satellite being inducted into the INSAT / GSAT system. After the completion of orbit raising operations, the two solar arrays and both the antenna reflectors of GSAT-18 were deployed. Following this, the satellite was put in its final orbital configuration. GSAT-18 is positioned at 74° East longitude in the Geostationary Orbit and is co-located with the Indian operational Geostationary Satellites. Later, as planned the communication payloads of GSAT-18 were experimentally turned on. After the successful completion of all the in-orbit tests, GSAT-18 was ready for operational use. It provides continuity of services of operational satellites in C, Extended C and Ku-bands.

SPECIFICATIONS

Weight	3404 kg
Power	6474 W, two 144 Ah Li-Ion batteries
Stabilisation	3-axis body stabilised
Type of Satellite	Communication
Payloads	48 Communication Transponders <ul style="list-style-type: none">• 24 Normal C-band• 12 Upper Extended C-band• 12 Ku-band beacon
Mission Life	15 Years

