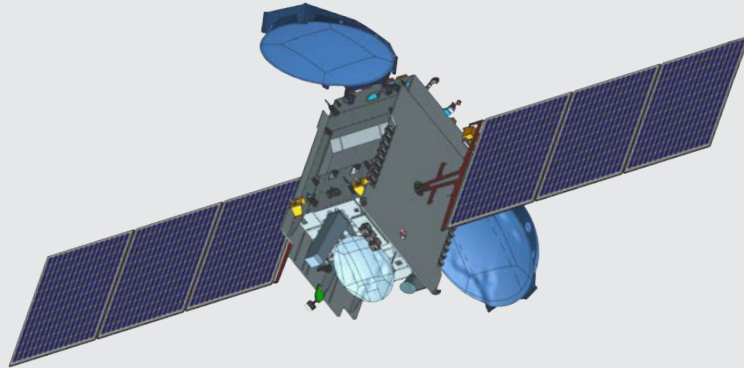


GSAT-18

GSAT-18

Indian National Satellite (INSAT) system, established in 1983, is one of the largest domestic communication satellite systems in the Asia Pacific Region. It presently comprises satellites providing transponders in S, C, Extended-C and Ku-bands.



Artist's View of GSAT-18 with its Solar arrays and Antennas deployed

GSAT-18, India's latest communication satellite, is a high power satellite being inducted into the INSAT/GSAT system. Weighing 3404 kg at lift-off, GSAT-18 carries 48 communication transponders to provide Services in Normal C, Upper Extended C and Ku-bands of the frequency spectrum. GSAT-18 carries Ku-band beacon as well to help in accurately pointing ground antennas towards the satellite.



GSAT-18 in Clean Room

SALIENT FEATURES

Services	Communication
Orbit	Geostationary, 74 deg East Longitude
Mission Life	About 15 years
Lift-off Mass	3404 kg
Dry mass	1480 kg
Spacecraft Control	3 Axis body stabilised
Propulsion System	Bi-propellant system
Power	6474 W from Solar arrays, Two 144 Ah Li-Ion batteries



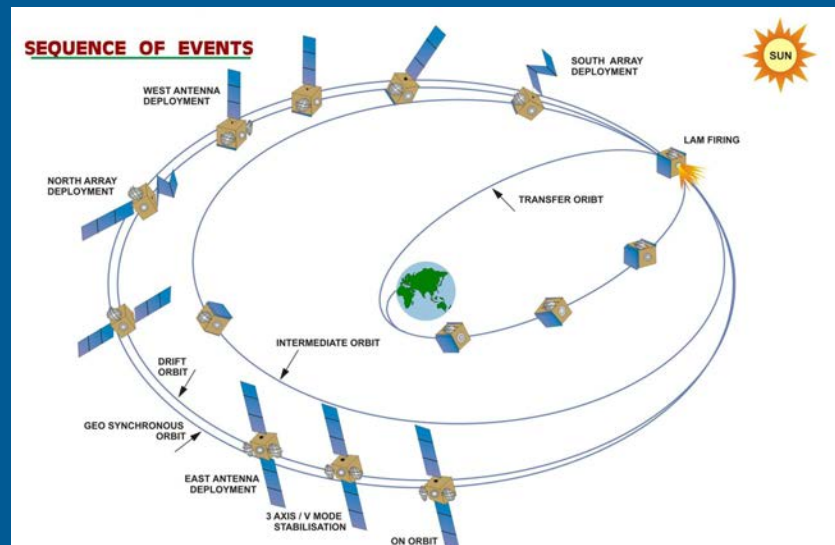
GSAT-18 being hoisted for a prelaunch test

GSAT-18



GSAT-18 undergoing Solar array Deployment Test

GSAT-18 is designed to provide continuity of services of operational satellites in C, Extended C and Ku bands. GSAT-18 is launched into a Geosynchronous Transfer Orbit (GTO) by Ariane-5 VA-231 launch vehicle from Kourou, French Guiana. After its injection into GTO, ISRO's Master Control Facility (MCF) at Hassan takes control of GSAT-18 and performs the initial orbit raising maneuvers using the Liquid Apogee Motor (LAM) of the satellite, placing it in circular Geostationary Orbit.



GSAT-18 Mission Profile

After this, the deployment of appendages such as the solar arrays and antennas as well as three axis stabilisation of the satellite will be performed. GSAT-18 will be positioned at 74 deg East longitude and co-located with other operational satellites. The designed in-orbit operational life of GSAT-18 is about 15 years.