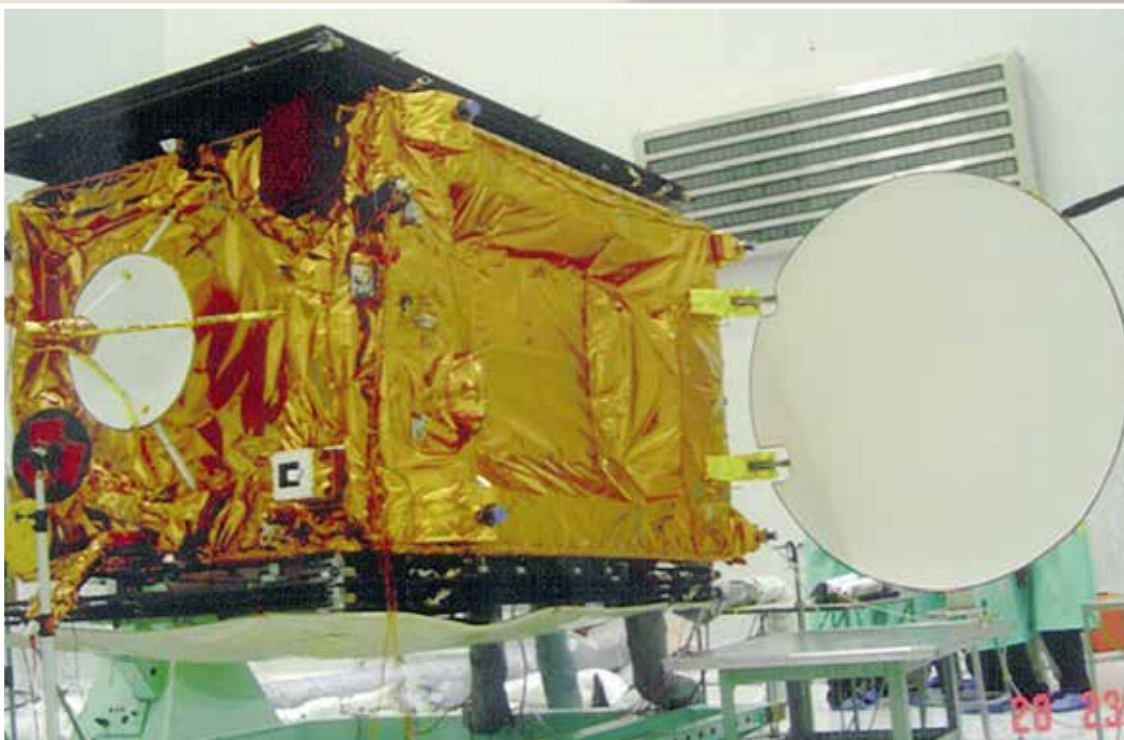


INSAT-3E MISSION

28 September, 2003

THE MISSION

The Indian National Satellite (INSAT-3E) on-board the Ariane 5-V162 lifted-off from Kourou, French Guiana at 4:44 AM (IST) on September 28, 2003. INSAT-3E, the fourth satellite launched in the INSAT-3 series is a multipurpose satellite for providing telecommunications, television broadcasting, meteorological and search & rescue services. INSAT-3E was injected into a Geosynchronous Transfer Orbit (GTO) at 5.14 AM (IST) i.e., 30 minutes after the lift-off, in three axis stabilised mode, with a perigee (nearest point to Earth) of 649 km and an apogee (farthest point to Earth) of 35,923 km and an inclination of 7° with respect to the Equator.



Ariane 5-V162

INSAT-3E

THE SATELLITE

INSAT-3E with a lift-off weight of 2,775 kg, has its main body in the shape of a cuboid of dimensions 2.0 m x 1.77 m x 2.8 m with solar arrays on north and south sides. It is an exclusive communication satellite to further augment the communication services provided by the INSAT System. The satellite will be three axis body stabilised in orbit using sensors, momentum and reaction wheels, magnetic torquers and eight 10 Newton and eight 22 Newton Reaction Control Thrusters. The satellite has two solar arrays together generating 2,400 W of electrical power backed up by two 70 Ah Nickel Hydrogen Batteries that support full payload operation during eclipse period. The satellite has two deployable antennas and one fixed antenna for various transmit and receive functions.

INSAT-3E carried 24 normal C-band and 12 extended C-band transponders. The satellite was stationed at 55° East longitude.

SPECIFICATIONS

Weight	2778 kg
Power	Solar Array: 2,400 W Batteries: Ni-H2 70 Ah
Stabilization	3-axis body stabilized in orbit using Momentum / Reaction Wheels, Magnetic Torquers, Sensors and Thrusters
Type of Satellite	Communication
Payloads	<ul style="list-style-type: none">• 24 Normal C-band Transponders• 12 Extended C-band Transponders
Mission Life	12 Years

