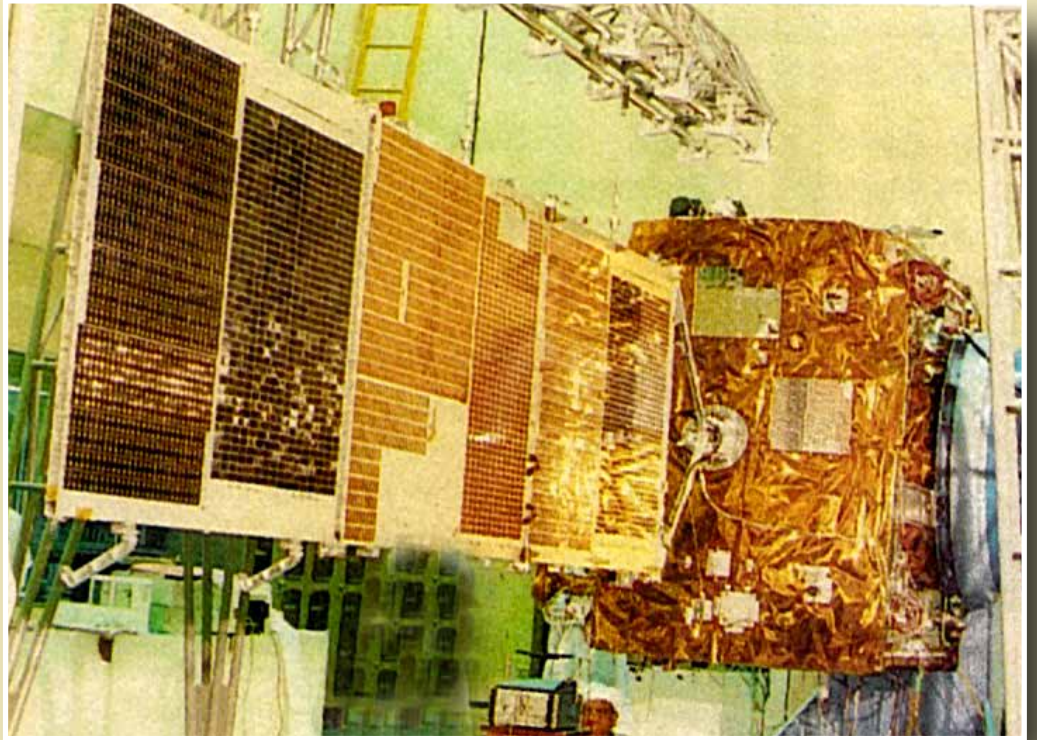


IRS-1A Mission

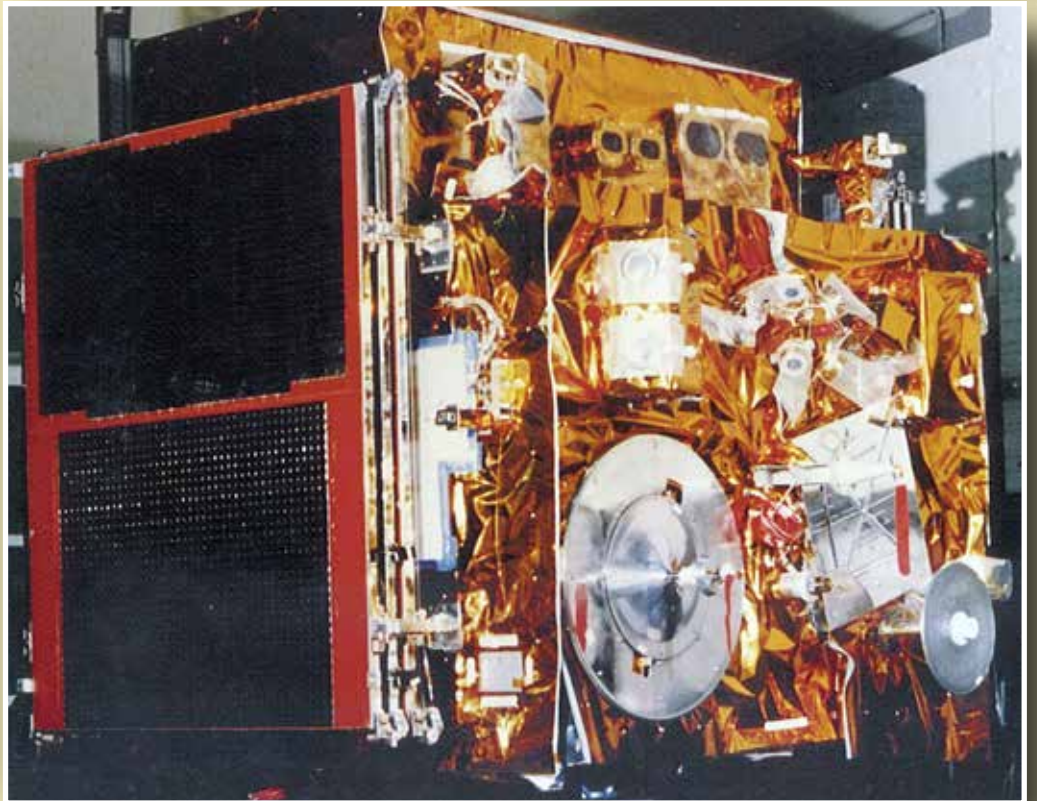
17 March, 1988

THE MISSION

The Indian Remote Sensing Satellite (IRS-1A) on-board the Vostok-II lifted-off from Baikanur Cosmodrome, Kazakhstan on March 17, 1988. IRS-1A, the first of the series of indigenous state-of-the-art Remote Sensing Satellites was successfully launched into a Polar Sun-synchronous Orbit. IRS-1A established the systematic imaging of India and demonstrated the application of remote sensing for various applications. More than 30 major remote sensing application projects were successfully demonstrated.



Vostok-II



IRS - 1 A

THE SATELLITE

IRS-1A carried a trio of Linear Imaging Self-Scanning (LISS) remote sensing instruments working in four spectral bands: 0.45-0.52 μm , 0.52-0.59 μm , 0.62-0.68 μm and 0.77-0.86 μm . The 38.5 kg LISS-1 images a swath of 148 km with a resolution of 72.5 m while the 80.5 kg LISS-2A and LISS-2B exhibited a narrower field-of-view (74 km swath) but were aligned to provide a composite 145 km swath with a 3 km overlap and a resolution of 36.25 m. The three axis stabilized spacecraft was essentially rectangular (1.1 m by 1.5 m by 1.6 m) with two narrow solar arrays producing less than 1 kW electrical power.

Image processing software witnessed large scale improvements and the concept of data quality evaluation on a systematic fashion was introduced. National Remote Sensing Agency became the nodal agency for imagery production and the concept of Level-0, Level-1 and Level-2 products with varied levels of complexity were introduced.

SPECIFICATIONS

Weight	975 kg
Power	620 W
Stabilization	3-axis body stabilized (zero momentum) with 4 Reactions Wheels, Magnetic Torquers
Type of Satellite	Earth Observation
Payloads	Three solid state Push Broom Cameras: <ul style="list-style-type: none">• LISS-1• LISS-2A• LISS-2B
Mission Life	Completed during July 1996 after serving for 8 years and 4 months

