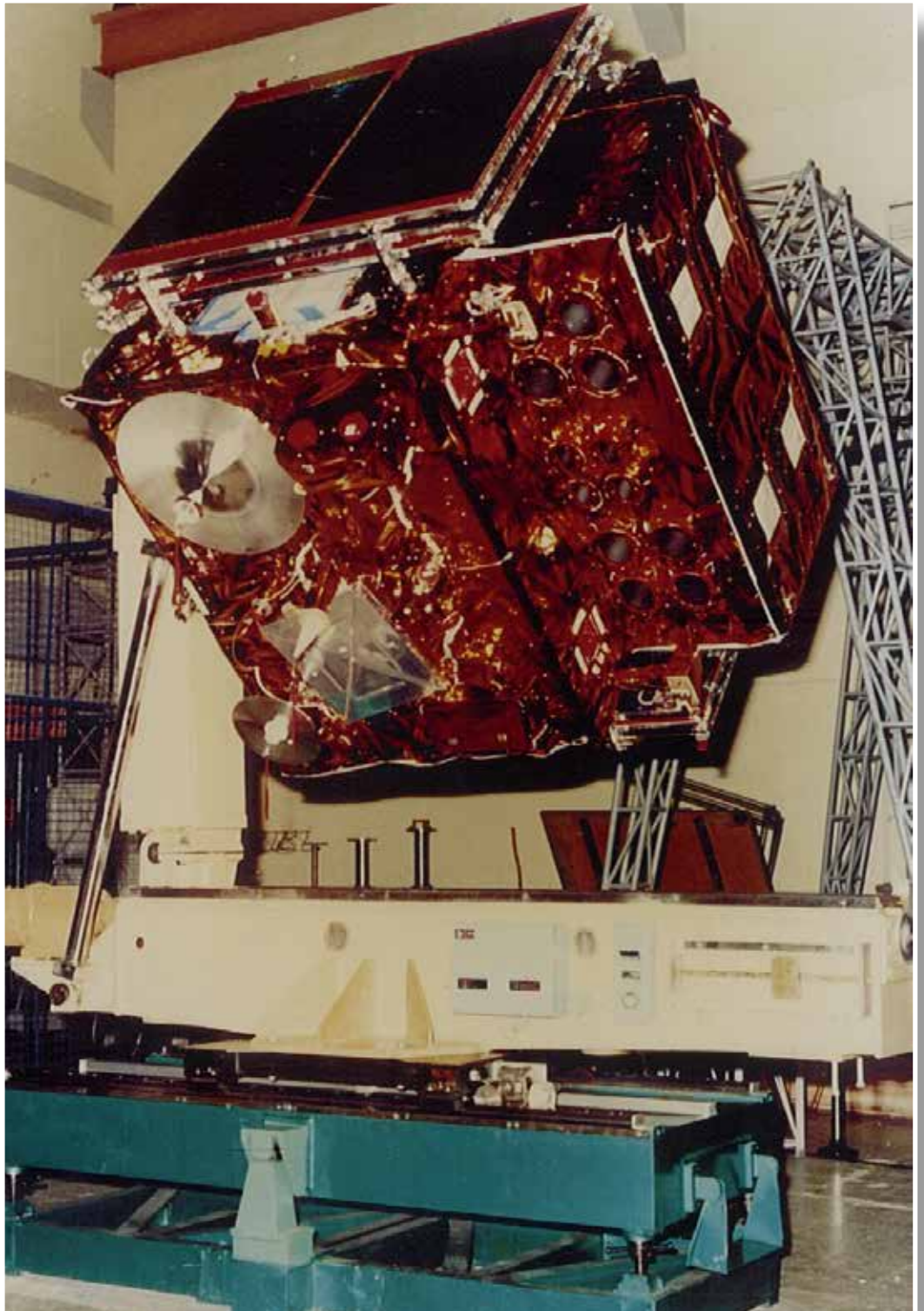


IRS-1B Mission

29 August, 1991

THE MISSION

The Indian Remote Sensing Satellite (IRS-1B) on-board the Vostok-II lifted-off from Baikonur Cosmodrome, Kazakhstan on August 29, 1991. IRS-1B, the second of the series of indigenously developed Remote Sensing Satellites was successfully launched into a Polar Sun-synchronous Orbit. The data from the satellite was used for various applications in the areas of integrated mission for sustainable development, agriculture, forestry, flood mapping, snow melts and run-off studies, urban sprawl studies, etc. The mission of IRS-1B completed on December 20, 2003 after serving for 12 years and 4 months.

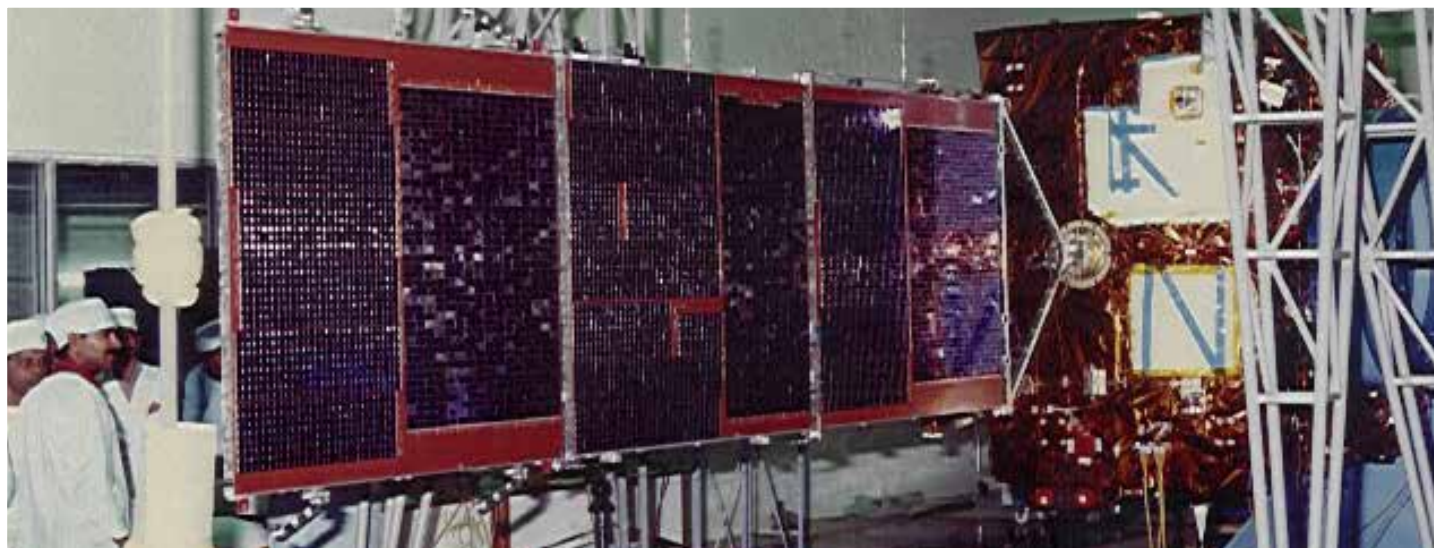


Vostok-II

IRS - 1 B

THE SATELLITE

IRS-1B 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.



IRS-1B had improved features compared to IRS-1A like gyro referencing for better orientation sensing, time tagged commanding facility for more flexibility in camera operation and line count information for better data product generation. IRS-1B, similar to IRS-1A with improved performance provided regular data to user community. The data from the satellite was used for various applications in the areas of integrated mission for sustainable development, agriculture, SPECIFICATIONS

Weight	975 kg
Power	600 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	12 years and 4 months

forestry, flood mapping, wasteland mapping, land use / land cover mapping, snow melts and run-off studies, urban sprawl studies, wheat production estimation, locating water source etc.

This satellite gave a confidence in the Indian Remote Sensing Satellites and gave continued support to the Indian users, and slowly shifted the users from Landsat to IRS-1B.

Data sets of three seasons (Rabi, Kharif and Summer) have been archived as per the archival policy of ISRO. 64,939 LISS-1 scenes and 2,59,756 LISS-2 scenes have been archived during 1991 to 2001. 6,126 products of LISS-1 data and 41,640 products of LISS-2 data of IRS-1B have been disseminated to the various users earning an revenue of 14.5 Crores.

Even today, archived data is being used by academia for time series studies and these historical data are very much useful for legal studies, which is new emerging applications.