IRS-1D beams good quality pictures

All the three cameras on-board Indian Remote Sensing Satellite IRS-1D, namely, the high resolution Panchromatic (PAN) camera, the multi-spectral Linear Imaging Self-Scanner (LISS-III) and the Wide Field Sensor (WIFS) have been tested by commanding from the Spacecraft Control Centre (SCC) of ISRO Telemetry, Tracking and Command Network (ISTRAC), Bangalore. The cameras have beamed high quality pictures.

The PAN camera was tested for the first time at 10:44 a.m. Indian Standard Time on 7 October 1997 when the satellite was in its 120th orbit around the earth. The satellite was passing over Allahabad, Madurai and Tuticorin during the camera operation. The other two cameras, LISS-III and WIFS were tested on during the subsequent orbit at 12:33 p.m. when the satellite was passing over the Gulf countries. On 8 October all the cameras were again tested by switching them on simultaneously. An analysis of the data received and processed by National Remote Sensing Agency (NRSA), Hyderabad, has confirmed that the cameras are performing well and the images are of good quality.

The PAN camera is a high resolution camera with 5.8 m ground resolution. LISS-III operates in four spectral bands in the electro-magnetic spectrum—three in visible and Near Infrared (NIR) and one in Short Wave Infrared (SWIR) region. It provides a ground resolution of 23.5 m in visible and NIR bands and 70.5 m in SWIR band. The third camera, namely, WIFS has a ground resolution of 189 m. The availability of data from IRS-1D cameras along with data from IRS-1C will further enhance applications capability pertaining to land and water resources management in the country.

IRS-1D was launched on 29 September 1997 by India’s Polar Satellite Launch Vehicle (PSLV-C1) from Sriharikota, into a polar orbit with 820 km apogee and 300 km perigee. Since its launch, the process of raising the perigee of the IRS-1D satellite has been progressing well in a step-by-step manner using the propellant on board the satellite. The propulsion system on board the satellite is performing very well and the satellite has already reached a sun-synchronous orbit. Now that the perigee is above 700 km, the orbit will be fine tuned around this perigee to commence normal operations in the next few days. With these manoeuvres, the planned mission life of at least three years is ensured.

All the systems on board IRS-1D are functioning well.

Colour-coded imagery obtained from the Wide Field Sensor (WIFS) of IRS-1D on 7 October 1997. The picture was taken over Iran–Oman–UAE region. The imagery covers an area of about 800 x 600 km and has a ground resolution of 188 m. The narrow part of the ocean region appearing in black is the Strait of Hormuz.
Colour-coded imagery obtained on 7 October 1997 from the multispectral camera system (LISS-III) of IRS-1D. The imagery, with a ground resolution of 23 m, shows Southern Iran covering an area of about 28 x 28 km. Geological features can be seen in northern part of the image and fine drainage pattern is visible in the central part. The red area represents vegetation.
Picture taken by the Panchromatic camera (PAN) of IRS-1D on 7 October 1997 showing part of Tuticorin town in Tamil Nadu. The picture which has a 5.8 m ground resolution clearly shows rectangular salt pans. The regulated drainage system can also be seen besides built-up structures.