

PSLV-C36 / RESOURCESAT-2A Mission 07 December, 2016

THE MISSION

PSLV-C36 carrying on-board the RESOURCESAT-2A Satellite lifted-off from the Satish Dhawan Space Centre (SDSC) SHAR, Sriharikota at 10:25 AM (IST) on December 07, 2016. After a flight of 17 minutes and 05 seconds, the launch vehicle achieved a polar Sun-synchronous Orbit of 824 km height inclined at an angle of 98.725° to the Equator (very close to the intended orbit) and 47 seconds later, RESOURCESAT-2A was separated from the PSLV fourth stage.

RESOURCESAT-2A is a Remote Sensing Satellite intended for resource monitoring and it is a follow on mission to RESOURCESAT-1 and RESOURCESAT-2, launched in 2003 and 2011 respectively. The satellite is intended to continue the remote sensing data services to global users provided by RESOURCESAT-1 and RESOURCESAT-2. The data sent by RESOURCESAT-2A will be useful for agricultural applications like crop area and crop production estimation, drought monitoring, soil mapping, cropping system analysis and farm advisories generation.

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THE LAUNCH VEHICLE

PSLV-C36 used the 'XL' variant of PSLV with six solid strap-on motors for this mission. It is the 38th flight of the PSLV, which has yet again demonstrated its reliability.

SPECIFICATIONS

Height	44.4 m
Lift-Off Mass	321 t
No of Stages	4
Payloads	RESOURCESAT-2A
Orbit Height	827 km
Inclination (deg)	98.719°
Launch Pad	First Launch Pad (SDSC, SHAR)



RESOURCESAT-2A

THE SATELLITE

RESOURCESAT Series of Satellites have a unique 3-Tier Imaging System with AWiFS, LISS-3 and LISS-4 Sensors. The three payloads which are similar to those of RESOURCESAT-1 and RESOURCESAT-2 are: A high resolution Linear Imaging Self Scanner (LISS-4) Camera operating in three-spectral bands in the Visible and Near Infrared Region (VNIR) with 5.8 m spatial resolution images with 70 kms swath and steerable up to $\pm 26^\circ$ across track to achieve a five-day revisit capability.

The second payload is the medium resolution LISS-3 camera operating in three-spectral bands in VNIR and one in Short Wave Infrared (SWIR) band with 23.5 m spatial resolution images with 141 km swath and a revisit capability of 24 days. The third payload is a coarse resolution Advanced Wide Field Sensor (AWiFS) Camera operating in three spectral bands in VNIR and one band in SWIR with 56 m spatial resolution in 4 bands and has a swath of 740 km and revisit capability of 5 days. These multi-spectral cameras have liner arrays of Charged Coupled Devices (CCDs) as detectors working in push-broom scanning mode.

RESOURCESAT-2A also carries two Solid State Recorders with a capacity of 200 Giga Bits each to store the images taken by its cameras.

SPECIFICATIONS

Weight	1235 kg
Power	1700 W, two 24 Ah Ni-Cd batteries
Stabilisation	3-axis body stabilised using Reaction Wheels, Magnetic Torquers and Hydrazine Thrusters
Type of Satellite	Earth Observation
Payloads	<ul style="list-style-type: none">• LISS-4• LISS-3• AWiFS
Mission Life	5 Years

