GOVERNMENT OF INDIA
DEPARTMENT OF SPACE

RAJYA SABHA
UNSTARRED QUESTION NO. 1245

TO BE ANSWERED ON THURSDAY, DECEMBER 20, 2018

LAUNCHING OF HySIS

1245. SHRIMATI AMBIKA SONI:
DR. T. SUBBARAMI REDDY:
Will the PRIME MINISTER be pleased to state:

(a) whether ISRO has successfully launched earth monitoring Hyperspectral Imaging Satellite (HysIS) recently;

(b) if so, the details thereof;

(c) the data is expected to collect and in what fields;

(d) whether co-passenger satellites were also dropped into the designated orbit; and

(e) if so, the details thereof?

ANSWER

MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PG &
PENSIONS AND IN THE PRIME MINISTER'S OFFICE
(DR. JITENDRA SINGH):

(a) Yes Sir. The Indian Space Research Organisation launched the earth monitoring Hyperspectral Imaging Satellite (HysIS) successfully on November 29, 2018 from Satish Dhawan Space Centre (SDSC), Shriharikota.

(b) The HysIS was launched from the First Launch Pad of SDSC at 09:57 hrs on November 29, 2018 using Core Alone version of Polar Satellite Launch Vehicle (PSLV) designated as PSLV-C43 mission. The satellite was injected into a Sun Synchronous Polar Orbit of 636 km altitude. HysIS weighed about 380 kg and carried an Electro-Optic payload called Hyper-Spectral Imager.

(c) The payload is capable of imaging earth in major spectral bands of Visible & Near Infra-Red (VNIR) and Short Wave Infra-Red (SWIR). The payload can capture characteristics of images in 60 spectral bands of VNIR (400-900 nanometer wavelength) and 256 spectral bands in SWIR (850-2400 nanometer wavelength).

The data is captured in fine spectral resolution of less than 10 nanometers in the above bands. These fine bands provide capability to study fine characteristics of the objects. The payload can image the earth with 30 meters resolution and 30 km swath. The data is used in a wide range of applications of agriculture, forestry, soil/geological environments, coastal zones and inland waters etc.

(d) Yes Sir. All the thirty co-passengers of HysIS were also injected into their designated orbits.

(e) The co-passengers of HysIS included 1 Micro satellite (USA) and 29 Nano satellites from 8 different countries (one nano satellite each from Australia, Canada, Colombia, Finland, Malaysia, Netherlands & Spain and 22 nano satellites from USA) . The total weight of 30 co-passenger satellites was 261.5 kg. These satellites were deployed in the polar orbits of altitude 504-506 km.

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