## GOVERNMENT OF INDIA DEPARTMENT OF SPACE

#### **LOK SABHA**

# UNSTARRED QUESTION NO. 2960 TO BE ANSWERED ON WEDNESDAY, DECEMBER 20, 2023

#### **CENTRES OF ISRO**

#### 2960. SHRI NIHAL CHAND:

Will the PRIME MINISTER be pleased to state:

- (a) the number of centres of Indian Space Research Organisation(ISRO) in the country at present State and Union Territory-wise;
- (b) the position of India in comparison to other countries in the fields of space research;
- (c) whether the Government proposes to establish new space research centres in other parts of the country;
- (d) if so, the details thereof; and
- (e) the progress made in the field of Indian Space Research during the last five years?

#### **ANSWER**

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

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(a) Indian Space Research Organization has its Centers/Units spread throughout the country with following distribution:

Centres/Units/Liaison Office	State	Number
Regional Remote Sensing Centre [RRSC] (West)	Rajasthan	3
Solar Observatory		
Infrared Observatory	_	
Space Applications Centre	Gujarat	2
Physical Research Laboratory		
Delhi Earth station	Delhi	2
RRSC [North]		
Indian Institute of Remote Sensing	Uttarakhand	1
ISTRAC Ground Station	Uttar Pradesh	1
RRSC [East]	West Bengal	1
North Eastern Space Applications	Meghalaya	1
Centre (NESAC)		
RRSC [Central]	Maharashtra	1
Master Control Facility (Bhopal)	Madhya Pradesh	1
National Remote Sensing Centre [NRSC]	Telangana	1
Satish Dhawan Space Centre	Andhra Pradesh	2
[SDSC]		
National Atmospheric Research		
laboratory [NARL]		
U R Rao satellite Centre [URSC]	Karnataka	6

Centres/Units/Liaison Office	State	Number
Human Space Flight Centre [HSFC]		
Laboratory for Electro optic	-	
systems [LEOS]		
ISRO Telemetry , Tracking and	_	
command network [ISTRAC]		
RRSC (South)		
Master Control Facility [MCF]		
Vikram Sarabhai Space Centre	Kerala	4
[vssc]		
Liquid Propulsion Systems Centre		
[LPSC]		
ISRO Inertial Systems Unit [IISU]		
Indian Institute of Space Science		
and Technology [IIST]		
ISRO Propulsion Complex [IPRC]	Tamil Nadu	1
Down range Station	Andaman &	1
	Nicobar Islands	

(b) India is the fifth amongst spacefaring nations having end-to-end capabilities in space research and development, including the capability to launch from our own land and operate programs of earth observation, satellite communication, meteorology, space science & navigation and ground infrastructure. Now, NewSpace

industries are also emerging at fast pace after space sector reforms.

### (c) & (d)

The existing centres of ISRO in various parts of country are making sufficient contributions towards R&D in space sector. To support NGEs for small satellite launches a new launch complex at Thoothukudi is proposed.

- (e) During the last five years, significant progress has been made in the Indian Space Research sector. Some of the major achievements are listed below:
  - India's second mission to Moon, Chandrayaan-2 was successfully launched on July 22, 2019 on-board GSLV Mk III-M1. Chandrayaan-2 Orbiter is providing valuable science data for the research community.
  - The launch of PSLV-C48/ RISAT-2BR1 in December, 2019 marked the 50<sup>th</sup> launch of PSLV, the workhorse launch vehicle.
  - On June 26, 2020, the Government of India announced Space Sector Reforms – a major transformation of Indian Space Sector with enhanced participation of private players in Indian space programme and playing key roles to boost India's market share in Global Space Economy.
  - Setting up of Indian National Space Promotion and Authorisation Centre (IN-SPACe) and enhancing the role of New Space India Limited (NSIL) are the two major thrust areas in the Reforms. IN-SPACe Headquarters at Ahmedabad was inaugurated by the Hon'ble Prime Minister in June, 2022.

- LVM3 (GSLV MkIII) M2/OneWeb India-1 Mission was successfully accomplished on 23<sup>rd</sup> October 2022.
- Launch of Vikram-S (Prarambh mission), a suborbital launch vehicle from M/s. Skyroot Aerospace Pvt. Ltd., Hyderabad, was accomplished successfully on 18<sup>th</sup> November 2022.
- First private launchpad & mission control center established by M/s. Agnikul Cosmos Pvt. Ltd., Chennai in ISRO campus at SDSC, SHAR on 25th November 2022.
- On February 10<sup>th</sup>, 2023, the successful flight of Small Satellite Launch Vehicle (SSLV – D2) took place, launching three satellites – EOS-07, Janus-1 and AzaadiSAT-2.
- On March 7<sup>th</sup>, 2023, controlled re-entry experiment for the decommissioned Megha-Tropiques-1 (MT-1) satellite was carried out successfully, with final impact in the Pacific Ocean, demonstrating the nation's continued efforts towards ensuring the long-term sustainability of outer space activities.
- LVM3 M3/OneWeb India-2 Mission was successfully accomplished on 26<sup>th</sup> March, 2023, placing 36 OneWeb satellites into their intended orbit. With this, NSIL successfully executed its contract to launch 72 satellites of OneWeb to Low Earth Orbit.
- Reusable Launch Vehicle Autonomous Landing Mission (RLV LEX) was successfully demonstrated at the Aeronautical Test Range (ATR), Chitradurga, Karnataka on 2<sup>nd</sup> April, 2023.
- GSLV-F12/NVS-01 mission was successfully accomplished on 29<sup>th</sup> May, 2023. GSLV deployed the NVS-01 navigation satellite, the first of the second-generation satellites

- envisaged for the Navigation with Indian Constellation (NavIC) service, into a Geosynchronous Transfer Orbit.
- LVM3-M4 successfully launched the Chandrayaan-3
   Spacecraft on 14<sup>th</sup> July, 2023.
- On 23<sup>rd</sup> August, 2023, Chandrayaan-3 lander, *Vikram*, successfully soft-landed on the Moon. Subsequently, the rover, *Pragyan*, ramped down on the lunar surface. Over the next few days, several experiments, such as measurement of near-surface plasma content, presence of mineral elements, temperature profile of the lunar topsoil, etc. were conducted by the on-board payloads.
- On September 02, 2023, Aditya-L1 spacecraft India's first solar observatory – was launched on board PSLV C57. The spacecraft underwent a series of manoeuvers and is currently on its way to the Sun-Earth Lagrange Point 1(L1).
- The first developmental flight of Test Vehicle (TV-D1) was successfully accomplished with the in-flight abort demonstration of the Crew Escape System (CES) on October 21, 2023 from FLP, SDSC, Sriharikota. TV-D1 Crew Module was safely recovered from sea with the help of Indian Navy and transported back to ISITE, Bengaluru.

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