

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE**

**LOK SABHA**

**UNSTARRED QUESTION NO. 3669**

**TO BE ANSWERED ON WEDNESDAY, MARCH 22, 2023**

**NEW SPACE RESEARCH CENTRE**

**3669. SHRI NIHAL CHAND:**

**Will the PRIME MINISTER be pleased to state:**

- (a) The extant number of research centres of Indian Space Research Organisation (ISRO) in the country, State/UT-wise;**
- (b) The status of the country in the space research sector in comparison to other countries;**
- (c) Whether the Union Government is contemplating to set up new Space Research Centres in other parts of the country as well, if so, the details thereof; and**
- (d) The progress made in the Indian Space Research sector 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 under Department of Space has its Research Centers/Units spread throughout the country with following distribution:**

<b>Centres/Units/Liaison Office</b>	<b>State</b>	<b>Number</b>
<b>Regional Remote Sensing Centre [RRSC] (West)</b>	<b>Rajasthan</b>	<b>3</b>
<b>Solar Observatory</b>		
<b>Infrared Observatory</b>		
<b>Space Applications Centre</b>	<b>Gujarat</b>	<b>2</b>
<b>Physical Research Laboratory</b>		
<b>Delhi Earth station</b>	<b>Delhi</b>	<b>2</b>
<b>Regional Remote Sensing Centre [RRSC] (North)</b>		
<b>Indian Institute of Remote Sensing</b>	<b>Uttarakhand</b>	<b>1</b>
<b>ISTRAC Ground Station</b>	<b>Uttar Pradesh</b>	<b>1</b>
<b>Regional Remote Sensing Centre [RRSC] (East)</b>	<b>West Bengal</b>	<b>1</b>
<b>North Eastern Space Applications Centre (NESAC)</b>	<b>Meghalaya</b>	<b>1</b>
<b>Regional Remote Sensing Centre [RRSC] (Central)</b>	<b>Maharashtra</b>	<b>1</b>
<b>Master Control Facility (Bhopal)</b>	<b>Madhya Pradesh</b>	<b>1</b>
<b>National Remote Sensing Centre [NRSC]</b>	<b>Telangana</b>	<b>1</b>

<b>Centres/Units/Liaison Office</b>	<b>State</b>	<b>Number</b>
<b>Satish Dhawan Space Centre [SDSC]</b>	<b>Andhra Pradesh</b>	<b>2</b>
<b>National Atmospheric Research laboratory [NARL]</b>		
<b>U R Rao satellite Centre [URSC]</b>	<b>Karnataka</b>	<b>6</b>
<b>Human Spaceflight Centre [HSFC]</b>		
<b>Laboratory for Electro optics Systems [LEOS]</b>		
<b>ISRO Telemetry , Tracking and Command Network [ISTRAC]</b>		
<b>Regional Remote Sensing Centre [RRSC] (South)</b>		
<b>Master Control Facility [MCF]</b>		
<b>Vikram Sarabhai Space Centre [VSSC]</b>	<b>Kerala</b>	<b>4</b>
<b>Liquid Propulsion Systems Centre [LPSC]</b>		
<b>ISRO Inertial Systems Unit [IISU]</b>		
<b>Indian Institute of Space Science and Technology [IIST]</b>		
<b>ISRO Propulsion Complex [IPRC]</b>	<b>Tamil Nadu</b>	<b>1</b>
<b>Down range Station</b>	<b>Andaman &amp;</b>	<b>1</b>

<b>Centres/Units/Liaison Office</b>	<b>State</b>	<b>Number</b>
	<b>Nicobar Islands</b>	

**(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) As of now, there are no specific plans to set up new space research centres in other parts of country.**

**(d) During the last five years, significant progress has been made in the Indian Space Research sector. Some of the major achievements are listed below:**

- 24 satellite missions and 20 Launch Vehicle missions have been successfully accomplished during the period, besides a technology demonstrator mission - the successful Pad Abort Test (PAT) to qualify the Crew Escape System (CES) in July 2018.**
- In June 2018, India announced a capacity building training programme UNNATI (UNIspace Nanosatellite Assembly & Training by ISRO) on Nanosatellites development through a combination of theoretical coursework and hands-on training on Assembly, Integration and Testing (AIT). First batch of UNNATI Programme was conducted from 15<sup>th</sup>**

**January to 15<sup>th</sup> March 2019 wherein 30 participants from 17 countries had benefitted. Second batch was held in Oct-Dec 2019. The third batch was conducted between October 15, 2022, and December 15, 2022. Thirty-one participants from 19 countries attended the training.**

- **India's second mission to Moon, Chandrayaan-2 was successfully launched on July 22, 2019 on-board GSLV Mk III-M1, first operational flight of this new launch vehicle. 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.**
- **In 2019, ISRO launched an annual special programme called "Young Scientist Programme" or the "*YUva Vigyani KAryakram*" (YUVIKA), in line with the Government's vision "Jai Vigyan, Jai Anusandhan". The Program is primarily aimed at imparting basic knowledge on Space Technology, Space Science and Space Applications to the young talents with the intent of encouraging them in the fascinating domain of outer space. Second batch of YUVIKA programme was held in May 2022, with the third edition planned in May 2023.**
- **NewSpace India Limited (NSIL) was incorporated in 2019, as a wholly owned Government of India Undertaking/ Central Public Sector Enterprise (CPSE), under the**

**administrative control of Department of Space (DOS), to enable Indian Industries to scale up high-technology manufacturing base for space programme and to commercially exploit the products and services emanating from the Indian Space Programme for meeting the domestic and global customer needs**

- **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 Reform.**
- **The establishment of IN-SPACe was announced in June 2020 by Government of India, as a single window agency under the Department of Space, to create eco-system of industry, academia and start-ups and to attract major share in the global space economy, by authorizing and regulating activities of NGEs in space sector through detailed guidelines and procedures.**
- **A dedicated ISRO System of Safe and Sustainable Space Operations Management (IS<sup>4</sup>OM) has been established in July, 2022 to collate all Space Situational Awareness**

**efforts in India and to act as a hub for the relevant data exchanges and collaborations.**

- **LVM3 (GSLV MkIII) M2/OneWeb India-1 Mission was successfully accomplished on 23rd October 2022. With this launch, LVM3 exemplifies Atmanirbharata and enhances India's competitive edge in the global commercial launch service market.**
- **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 Sathish Dhawan Space Centre, Sriharikota on 25th November 2022. Agnilet Semi-cryogenic rocket engine developed by Agnikul was successfully hot tested at ISRO facility on 04th November 2022.**
- **HAL and L&T consortia have been identified as Indian Industry partner for end-to-end production of 5 Nos. of PSLV.**
- **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 – into their intended orbits.**

- **AzaadiSAT-2 – an 8.7 kg satellite built as a combined effort of about 750 girl students across India guided by Space Kidz India, Chennai, was launched aboard SSLV-D2**
- **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.**
- **Large research projects are being undertaken by ISRO in all advanced technology domains such as Space transportation systems, propulsion systems, Artificial Intelligence, Quantum Communication, etc. across all ISRO centres and also in collaboration with research institutes and industries.**

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