

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

Sub: Monthly Summary of Department of space for the month of January 2023

PART- I (Unclassified)

1. Important policy decisions taken and major achievements during the month

A. Space Transportation:

- PSLV Integration Facility (PIF) at First Launch Pad of Satish Dhawan Space Centre, Sriharikota is ready for launch operations.
- Launch campaign activities for the second commercial mission of LVM3-M3 vehicle commenced from 13th January 2023 at SDSC SHAR.
- Successfully completed the Acoustic test on the Semicryo Inter Tank Structure (SITS) sub-assembly required for the development of the semicryogenic stage (SC 120 Stage) at NAL on 6th January 2023.
- Activities towards the demonstration of Landing Experiment of Reusable Launch Vehicle - (RLV-LEX) commenced at Chitradurga and is expected in 1st quarter of 2023.
- All the systems and sub-systems for the second developmental flight of SSLV i.e. SSLV-D2 are ready and integration activities have been completed at Satish Dhawan Space Centre, Sriharikota.
- The Semicryogenic Engine (SE2000), in the intermediate configuration (Power Head Test Article), is ready for tests.

B. Space Applications:

I. Earth Observation

- Development of Geospatial solution for planning and monitoring of MGNREGA activities for DoRD was reviewed by Secretary DoRD.
- Aman paddy crop map for kharif 2022-23 was generated for West Bengal under Crop Insurance Decision Support for AICIL
- Morphological spatial pattern analysis covering forest fragmentation carried out for Eravikulam regional landscape, Kerala and Purna regional landscape, Gujarat, to understand decadal changes, under community level Biodiversity Characterization project for DBT.

II. Satellite Navigation

- Completed technical evaluation of indigenous NavIC chip developed by Indian industry under MeitY contract, and cleared the chip for productionisation.
- Supported Ministry of Education's Innovation Cell for the India-Luxembourg hackathon to be held in February 2023. Two problems on satellite navigation with ISRO experts/evaluators are finalised under the space technology theme.

- Obtained clearance from European Commission for usage of copyrighted NeQuick-G atmospheric correction model as one the options in NavIC system.

C. Human Spaceflight:

- All the Structural qualification tests completed on TV-D1 Crew Module hardware. The module is despatched to industry for the final assembly.
- Drogue mortar and pilot mortar functional test successfully completed for the deceleration system of TV-D1.
- Thirty avionics packages realized for TV-D2 mission. Realization is in progress for other packages.
- Assembly of CES Jettisoning motor for second static test (ST-02) completed. The motor is moved to test bed.
- Interior works completed for the Orbital Module Preparation Facility (OMPF) and Gaganyaan Control Facility (GCF) at SDSC, SHAR.

D. Capacity Building:

- **India International Science Festival (IISF) 2022:** ISRO participated in the Indian International Science Festival (IISF -2022) organized by Ministry of Science & Technology and Ministry of Earth Science in association with Vijnana Bharati (VIBHA); MANIT, Bhopal; Department of Space and State Govt. of Madhya Pradesh during January, 21st - 24th January, 2023.
- **ISRO Signed MoU with VIBHA:** Vibha signed an MoU with ISRO for sharing the ISRO's Space Wheels for organizing Space Science Outreach across the country. MoU was exchanged on 24th January, 2023 in the presence of Secretary, DOS during IISF-2022.
- **National Start-up Day Celebration:** ISRO participated in the National start-up day celebration as panelist to discuss the potential opportunities and engagements with other ministries.
- **Space Vartha:** Space vartha is voice of ISRO scientists, who share the theory behind scientific concepts related to specific areas of space science, technology and applications through virtual mode. During the month, two Space Vartha sessions titled Applications of Space Technology in Oceanography and Basics of satellite & oceansat-3 realization & challenges were organized.

E. Training

1.	“Remote Sensing and Image interpretation”, an eight weeks certificate course commenced on Jan 09, 2023	17 participants
2.	A joint (DAIICT-IIRS-AAU) M.Sc. Agriculture analytics program commenced on Jan 02, 2023	29 students
3	One day workshop on “अंतरिक्ष प्रौद्योगिकी और इसके अनुप्रयोग “ (Jan 10, 2023)	2695 participants from 376 institutions

F. Safe & Sustainable Space Operations

- An international workshop on SSA and STM was organized during 11-13 Jan 2023 with participation of over 400 delegates from Government agencies, industries and academia. The workshop featured invited talks by the leading experts in the field of SSA and STM, panel discussions on way forward and an Industry meet for the leading and upcoming industries involved in SSA and observational sensor manufacturing under the Make in India initiative.
- Daily SOPA (Space Object Proximity Analysis) and CSpOC/USSPACECOM issued alert screening for 24 LEO and 29 GEO/GSO spacecraft. 28 manoeuvre plans were cleared and no CAMs (collision Avoidance Manoeuvres) were necessary. Conjunction analysis was also carried out for Chandrayan-2 orbiter including clearance of one orbit maintenance manoeuvre plan.
- Daily re-entry predictions of large space objects (9 large objects re-entered within the reporting period, including PSLV C29 rocket body), alert generation for final traces passing over India.
- Final planning and review for the controlled re-entry strategy for Meghatropiques-1, currently at 650x250 km orbit, the date of final de-boost and re-entry is now finalised around 17 Feb 2023.
- First meeting for design review of space object monitoring indigenous radar by National expert committee on 24 Jan 2023.

G. International Cooperation:

- Visits of Ambassador of Costa Rica to India (January 09); Delegation from Oman led by the H.E. Minister to ISTRAC (Jan 17); Consul General, Belgium Consulate, Mumbai to ISRO HQ (Jan 17) and President & CEO of US-India Strategic Partnership Forum (USISPF) (Jan 17)
- 8th India-USA Civil Space Joint Working Group (CSJWG) meeting at Washington DC, USA (Jan 30-31)
- 3rd G20 SELM Mentor/Core Group meeting (Jan 27)
- Space Module training organised for the 30 foreign diplomats from 30 countries at ISROHQ (January 23)
- Meeting with Australian Space agency for the Gaganyaan mission support (January 23).

H. IN-SPACE Activities

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I. NSIL Activities

- **Launch Vehicle Building** - Production of 5 PSLV-XL Through Indian Industry. Apex Committee (AC) and Programme Monitoring Committee (PMC) for PSLV realization through consortium were constituted to facilitate the seamless execution of the programme

- **Launch Services:** NSIL received response to RFP for procuring launch services for GSAT-20 Spacecraft
 - **Satellite Building:** Submitted response to a RFP released by Indian Customer for building Satellite Bus and providing Launch services
 - **Satcom Services**
 - Leased out C-Band capacity on GSAT-10 satellite on occasional uses basis to Private Indian Teleport Operator for broadcasting 'New Zealand tour to India 2023 Cricket event', 'Adiyogi Inauguration Bengaluru 2023 event' & 'FIH Hockey WC 2023'
 - NSIL allotted capacity on GSAT-31 in lieu of migration from GSAT-8 to other GSAT satellites to two users of Govt. & PSU sector
 - **Mission Support:** Two supports provided in Jan 2023
2. **No of Cases of 'Sanction of Prosecution' pending for more than three months: NIL**
 3. **Particulars of cases in which there has been a departure from the Transaction of Business Rules or established policy of the Government: NIL**
 4. **Status of ongoing Swachhta Abhiyan (progress under Special Campaign):**

Based on the Swachhta Action Plan of DOS/ISRO, Centres/Units/ABs/CPSEs of DOS/ISRO are carrying out various activities meticulously. Apart from this, Swachhta Pakhwada Award 2022 for the best maintained Centre/Unit/AB/CPSE are also being finalized. Also, action plan for the fortnight event 'Swachhta Pakhwada 2023' has been finalized and updated on Swachhta Samiksha Portal. All the DOS/ISRO Centres/Units/ABs/CPSEs are requested to take active part in Swachhta Pakhwada campaign.
 5. **Status of Rationalisation of Autonomous Bodies:**

A committee was constituted for review of Autonomous bodies under the department. Based on the recommendations of the committee, it is proposed to continue the 3 ABs namely PRL, NE-SAC & IIST under the department. SCL has been brought under the administrative control of MeitY, New Delhi. NARL shall be reviewed afresh which is underway. A report on this has been sent to Department of Expenditure(DoE), New Delhi and the confirmation is awaited.

Treasury Single Account(TSA) has been implemented in PRL, NESAC , NARL and IIST, ABs under DOS
 6. **Information on specific steps taken for utilisation of the Space Technology based tools and applications in Governance and Development:**

Support to Ministries/ Departments

- MoH&UA: Final version of urban geospatial database for 3 AMRUT cities have been delivered (cumulative completion: 230 / 238)
- MoRD: 200 VHR Satellite images provided and 3500 summary reports generated, under Geospatial support to Integrated Watershed Management Programme (IWMP/ PMKSY-WDC)

7. Vacancy position of senior level appointments in the Ministry/Department, including Autonomous Bodies/PSUs:

The detailed status regarding all the posts pertaining to Department of Space has been updated on AVMS. The status of updation of vacancy as on 29.11.2022 is as follows:

- Total number of posts required to be entered on AVMS: - 24
- Number of posts filled as on date: - 22
- Number of posts totally vacant as on date: - 02
- Number of posts under premature repatriation - 00
- Number of posts under additional charge arrangement: - 02
- Number of posts that would fall vacant during the next 06 months: -02

8. List of cases in which ACC directions have not been complied with:NIL

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