

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

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

PART- I (Unclassified)

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

A. Space Transportation:

- 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.
- The fourth hot test on the CE20 - E13 engine, planned for demonstrating the off-nominal operation of the engine, was successfully conducted for a duration of 125s on October 9, 2023 at MET facility, IPRC, Mahendragiri. With this test, the CE20 engine is qualified for operating at 22t thrust level in flight.
- Flight acceptance testing of the E12 cryogenic engine (CE20) earmarked for the first Un-Manned Gaganyaan mission (HLVM3-GX) mission successfully completed for a duration of 25 seconds on 19th October, 2023.
- Vehicle stacking activities for the GSLV F14/ INSAT-3DS mission commenced from October 18, 2023 from SDSC, Sriharikota with tentative launch during January, 2024.

B. Space Applications:

I. Earth Observation:

- **Agriculture Technology project** (for State governments & AICIL): Soybean, Cotton and Paddy crop condition assessment is done for Kharif 2022-23 season in Maharashtra. Sown area map for the Kharif season of 2023 is finalized for Madhya Pradesh. Jute crop mapping over West Bengal, Assam and Bihar is completed.
- **Phase-II of ISRO-DoLR collaboration under PMKSY-WDC:** MoU was signed between NRSC & DoLR in presence of the Chairman, ISRO/ Secretary, DoS & Secretary, DoLR on 17th October, 2023 at New Delhi.
- **Website of National Information System for Climate and Environment Studies (NICES)** was released by Chairman, ISRO / Secretary, DOS on 26th October, 2023.

➤ **Disaster Management Support:**

- South Lhonak GLOF event in Sikkim State is being monitored since 4th October, 2023, using satellite data, including the data received through activation of International Charter. About 30 value added products were disseminated so far to the stakeholders.
- NDEM is conferred with Geo-Spatial Excellence Award for Spatial Technology, during the GeoSmart India- 2023 at Hyderabad during October 17-19, 2023.
- Seven IRS datasets were provided responding to Emergency observation request pertaining to Afghanistan Earthquake through Sentinel Asia.

III. Satellite Navigation:

- Indian standard IS 18381(Part 1):2023 on general requirements for unmanned aerial vehicles (UAV) released by Bureau of Indian Standards. The standard recommends NavIC system for UAV navigation.

C. Human Spaceflight:

- Crew Module sub-systems and Crew Escape System performed as intended, in the first Test Vehicle Mission (TV-D1), accomplished on 21st October, 2023.
- TV-D1 Crew Module safely recovered from sea with the help of Indian Navy and transported back to ISITE, Bengaluru.
- 2nd Crew module structure realized for Integrated Air Drop Test and delivered to VSSC for final integration activities.
- Periodic Monthly Evaluation of Astronaut designates completed by IAF.

D. Capacity Building:

- ISRO participated in India Mobile Congress (IMC)-2023 and established space exhibition by showcasing the ISRO's achievements with posters & models.
- During the month, 3 patents were granted and two patent & one copyright applications are filed at IPO.
- Three batches of ITTP trainings were organized at NSTIs with the participation 46 ISRO technical staff

E. Training:

1.	2-day special training on 'India-Oman Space Platform'	32 officials from line departments of Sultanate of Oman in Muscat, Oman
2.	IIRS outreach program/ Distance Learning Programme.	10024 participants from various institutions

F. Safe & Sustainable Space Operations:

- A three-day workshop on SSA and STM was conducted from 12th to 14th October, 2023 for academic community at ISRO-HQ Bangalore. UG, PG students, research scholars, and faculty members from across 20 states participated in the workshop which featured 22 lectures, interactive sessions and technical facility visits.
- Daily SOPA (Space Object Proximity Analysis) and re-assessment of close approach situation conducted for 23 LEO and 29 GSO spacecraft.
- One Collision Avoidance Manoeuvres (CAMs) was carried out for Resourcat-2A on 17th October, 2023 to avoid close conjunction with another space object.
- Atmospheric re-entry of 20 large objects into the Earth's atmosphere were monitored for final ground trace over Indian region.

G. International Cooperation:

- A 22-member delegation led by Secretary, DOS/Chairman, ISRO participated in the International Astronautics Congress (IAC-2023) organized by International Astronautics Federation (IAF) at Baku, Azerbaijan during October 02-06, 2023.
- 3-member ISRO delegation visited Oman during October 8-11, 2023 for familiarising the India-Oman Space Portal to Oman team. Officials from various ministries of Oman participated in the familiarisation program and appreciated the India-Oman Space Portal.
- NASA Astronaut Raja Chari (online) and ESA Astronaut Thomas Pesquet (in-person) delivered talks as part of One-Day Seminar on Human Machine interface on October 12, 2023 at ISRO HQ.
- 6-member ISRO delegation led by Director SAC participated in the 17th meeting of International Committee on Global Navigation Satellite System (ICG) and 28th meeting Providers Forum meetings during October 15-20, 2023 at Madrid, Spain.
- Director, URSC participated in the AIAA ASCEND 2023 Conference held at Las Vegas, USA on October 24, 2023 and delivered a talk on “Chandrayaan-3- The Journey to The Moon” and participated in the Panel Discussion on “Accelerating Sustainable Space Exploration Through Global Cooperation”.

H. IN-SPACE Activities:

- IN-SPACE issued authorization for the launch of TV-D1 mission from SDSC, SHAR by ISRO. The launch was successfully completed on October 21, 2023.
- IN-SPACE has registered 04 additional Indian Entities who wish to disseminate/sell the primary data pertaining to Indian territory and Ground Sampling Data (GSD) > 30 cm commercially from the Earth Observation / Remote Sensing satellites.
- Announcement of opportunity to host payloads by NGEs on the upcoming PSLV Orbital Experimental Module (POEM) on PSLV missions was published

by IN-SPACe. Seven payloads have been selected to be flown onboard PSLV-C58 mission.

- Highlights of the decadal vision and strategy for Indian space economy released.
- A Short-Term Course on using Space Technology for Agriculture Sector has been announced, registrations are undergoing. IIT-R Greater Noida campus identified for the course.
- A total of 9 (Nine) Industries have shown interest for acquiring the technology SSLV in the EOI.
- 3 (Three) Technologies are transferred to Indian Industries during the month.
- Installation and commissioning of vibration shaker system completed at IN-SPACe Technical centre and it is ready for use by NGEs.

I. NSIL Activities:

- Industry Consortium (HAL-L&T) delivered the propellant ingredients at SDSC-SHAR for the realisation of Solid Motors for PSLV-XL 'N1' vehicle.
- NSIL released Purchase Order (PO) to three vendors for the Supply, Installation, and Commissioning of MSS Terminals (Xponders) for Vessel Communication and Support systems in Marine fishing vessels for Monitoring, Control, and Surveillance (MCS).
- NSIL issued frequency allotment letter to Government users for GSAT-31 satellite to meet their VSAT requirements and occasional frequency allotment to the DSNG user for broadcasting event.
- NSIL signed 3 Technology Transfer Agreements (TTA) with two Indian industries; DAT-SG and Two-way MSS terminal with M/s KELTRON and Piezo Electric Vibration Sensor with M/s CEL.

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):

Swachhta Pakhwada – 2023 has been observed from 1st – 15th February, 2023 with mass participation from employees, housing colony residents and CISF personnel etc.

Apart from this, Swachhta Action Plan for the year 2023-24 has been finalised with an emphasis on outcome based Swachhta activities and creating awareness about cleanliness and hygiene and an amount of ₹470 lakhs has been allocated for Swachhta Activities. The action plan has been communicated to the DDWS. The Action plan has been communicated to the DDWS and uploaded on Swachhta

Action Plan portal of DDWS. The activities are being meticulously carried out at Centres/ Units/ ABs/ CPSEs.

5. Status of Rationalisation of Autonomous Bodies:

EMC has recommended that SCL and NARL be governmentalized out of which SCL has been transferred to MeitY during the year 2021-22. The recommendations of the committee in respect of NARL is under review.

All the AB's under the Department namely, IIST, PRL, NARL & NESAC have been brought under Treasury Single Account.

6. 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 31.10.2023 is as follows:

- Total number of posts required to be entered on AVMS: - 24
- Number of posts filled as on date: - 20
- Number of posts totally vacant as on date: - 04
- Number of posts under premature repatriation – 00
- Number of posts under additional charge arrangement: - 01
- Number of posts that would fall vacant during the next 06 months: - 03

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

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