

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

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

PART- I (Unclassified)

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

A. Space Transportation:

- Launch of LVM3-M3/ OneWeb India-2 mission was successfully accomplished on March 26, 2023 with the deployment of 36 satellites in the desired orbit. This was the third operational and second consecutive commercial mission of LVM3 vehicle.
- Captive Phase test of RLV was successfully conducted at ATR, Chitradurga on March 19, 2023. All systems and subsystems are ready for the Reusable Launch Vehicle Autonomous Landing Experiment (RLV-LEX).
- Vehicle stacking activities up to first stage completed for the PSLV-C55/ TeLEOS-02 mission.
- Integration activities on the PS4 upper stage required for the PSLV-C55 mission completed and dispatched to Sriharikota for further activities.
- Vehicle stacking activities for the GSLV F12/ NVS-01 mission have commenced at SDSC, Sriharikota from March 30, 2023.

B. Space Applications:

I. Earth Observation

- Daily Actual Evapotranspiration (AET) products, Daily snow cover maps and Daily simulated water balance components are generated, web-published and shared with NHP Project Management Unit, Ministry of Jal Shakti.
- Under MahaAgritech project, Rabi crop condition monitored for 2022-23 season for Maharashtra; district, taluk, and circle-wise condition are being reported to Govt. of Maharashtra.
- Flood Affected Area Atlas of India and National Database for Emergency Management (NDEM) V4.1 were released during 3rd session National Platform for Disaster Risk Reduction (NPDRR), held in New Delhi.

II. Satellite Navigation

- Presentation on NavIC in drones made during seminar on standardisation of unmanned aerial vehicles (UAVs) organised by Bureau of Indian Standards at IISc, Bengaluru on 17th March 2023.
- NavIC messaging system has been integrated in common alert protocol (CAP) based integrated alert system by C-DoT; rolled out to public via Sachet mobile app.

C. Human Spaceflight:

- Crew Module structure simulated assembly for Integrated Air drop test (IADT) delivered by Industry.
- Rail Track Rocket Sled (RTRS) deployment tests of the Gaganyaan Pilot and Apex Cover Separation (ACS) parachutes were conducted in cluster configurations at the Terminal Ballistics Research Laboratory (TBRL), Chandigarh, on March 1 and 3, 2023.
- Third static test of High altitude pitch motor (HPM) for Crew escape system (CES) successfully completed.
- Second Crew Module Recovery trials Mock-up (CMRM) hardware delivered by industry.
- Second session of Sensory evaluation of Space food with participation of Astronaut designates completed. Space food menu finalised based on crew's preference and feedback.
- Assembly and integration activities completed for Phase 2 of Crew Module (CM) System Demonstration Test for CM Propulsion system.

D. Capacity Building:

- YUVIKA 2023 has been launched and the registration for the program is under progress. The program would be conducted in May at 7 ISRO centres with participation of 350 students across the country.
- Expression of Interest (Eoi) towards "Atmanirbharta in Development of Technologies/Products/Systems for Indian Space Programme through industries" was published.

E. Training

1.	Online course on 'RS & GIS applications in atmospheric and oceanic hazards' (Feb 27- Mar 03, 2023)	5109 participants from 709 institutions
2.	Online course on 'Advances in RS techniques for geological applications' (Mar 13-24, 2023)	4500 participants from 683 institutions
3	Special course titled 'Geospatial inputs for enabling Master Plan formulation (AMRUT)' has commenced.	25 officials of town planning Dept., Maharashtra participated
4	'Advanced RS & GIS and its application in water resources' (Mar 13-17, 2023)	19 officials from Government of Rajasthan participated
5	'Applications of RS & GIS for disaster risk Management' (Mar 20-24, 2023)	8 NDMA officials participated
6	Course on 'Remote Sensing with special emphasis on Digital Image Processing'	33 participants from 20 Countries
7	Course on 'Remote sensing and Image Interpretation,	17 participants

F. Safe & Sustainable Space Operations:

- The Controlled Re-entry Experiment for the decommissioned satellite Meghatropiques was successfully executed on March 7, 2023.
- The post mission disposal of GSAT 12 was successfully carried out through 7 manoeuvres to raise the satellite to a circular super-GEO synchronous orbit 390 km above GEO belt.
- Daily Collision Avoidance analysis (COLA) for lift off clearance of LVM3-M3/ Oneweb' India 2 Mission from 20th March 2023, till the nominal lift off on 26th March 2023.
- Daily SOPA (Space Object Proximity Analysis) and re-assessment of close approach situation with Conjunction Data Messages (CDM) from CSpOC/ USSPACECOM were performed for 26 LEO (including Meghatropiques) and 29 GSO spacecraft (including GSAT-12).
- 12 large objects' uncontrolled re-entry into the Earth's atmosphere were monitored and predicted, alerts generated for final ground traces over Indian land mass.

G. International Cooperation:

- Secretary, DOS/ Chairman, ISRO along with Bhutan's Foreign Minister, Bhutan's Minister of Industry, Commerce and Employment, Indian Ambassador to Bhutan Inaugurated the ground station for India – Bhutan Sat at Thimphu on March 13, 2023.
- H.E. Dr. Mohammed Saud Altamaimi, CEO of Saudi Space Commission (SSC) visited ISRO HQ, Bengaluru on March 09, 2023 and had a meeting with Secretary, DOS/ Chairman, ISRO.
- The integrated payload of NISAR (NASA, ISRO Synthetic Aperture Radar), comprising of ISRO's S-band RADAR and NASA's L-band RADAR, reached Bengaluru in the early hours of 06th March, 2023 and moved to UR Rao Satellite Centre, Bengaluru for carrying out further activities, including testing and assembly with ISRO's satellite bus.
- Hon'ble Lady Justice Martha K Koome, Chief Justice of Supreme Court, Kenya (March 07, 2023); Parliamentary Standing Committee on Foreign Affairs of the French National Assembly led by H E Mr. Jean-Louis Bourlanges (March 16, 2023) and Indian Ambassador to Sweden Shri Tanmay Lal (March 13, 2023) visited ISRO Centres.
- 11 member ESA delegation visit to SAC, URSC, IN-SPACE, ISTRAC, PRL, HSFC, NSIL and ISRO HQ for technical discussions during March 27-31, 2023
- DOS/ISRO/Indian delegation participated in the 62nd Session Legal Subcommittee of UNCOPUOS at Vienna during March 20-31, 2023.

H. IN-SPACE Activities

- The Standard Operating Procedure (SOP) for granting authorization for space activities by Government Departments/Ministries was approved by IN-SPACE Board and the same has been adopted by IN-SPACE.
- MoU signed with 03 NGEs for providing necessary support in testing and satellite realisation.

- Space Systems Design Lab fully established and operationalised after the inauguration on 28th March, 2023.
- Pre-treatment and Thermovac test on Development & Qualification model of solar panel substrates of Dhruva Space completed by BHEL.
- IN-SPACE seed fund scheme for providing financial assistance to space start-ups is notified.

I. NSIL Activities

- With regards to the production of 5 PSLV-XL Through Indian Industry, technical details are being shared with industry consortium (HAL and L&T) to enable them to initiate the procurement activities for PSLV-XL.
- NSIL successfully accomplished its fourth Dedicated commercial launch (second for LVM3) by launching 36 Satellites for M/s. Network Access Associates Limited (M/s OneWeb), United Kingdom on-board ISRO's heaviest launcher LVM3 on 26 March 2023.
- Launch campaign activities related to NSIL's Dedicated mission for Singapore, PSLV-C55/TeLEOS-2 mission is progressing at SDSC-SHAR. The Launch is scheduled in April 2023.
- NSIL submitted revised Techno-Commercial proposal for realizing the Optical EO constellation in Low Earth Orbit as per user requirement. The satellites are proposed to be built by Indian Private companies. The proposal has been agreed to, in principle, by the customer.
- Leased out C-Band capacity on GSAT-10 satellite on occasional use basis to Private Indian Teleport Operators.
- NSIL has sent transponder leasing Agreements to Government and Private users (Total 136 users) for continuing the provisioning of GSAT satellite capacity from April 01, 2023 onwards.
- NSIL received contract to provide Mission Support Services for AMZ-1 satellite for the 3rd and 4th year.

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 2022-23, Centres/Units/ABs/CPSEs of DOS/ISRO has effectively carried out the various Swachhta activities with mass participation from employees. Swachhta Pakhwada Award 2022 for the best maintained Centre/Unit/AB/CPSE are also being finalised.

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.

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. Information on specific steps taken for utilisation of the Space Technology based tools and applications in Governance and Development:

A. Support to Ministries/ Departments

- MoH&UA: Final version of urban geospatial database for 1 AMRUT city has been delivered (cumulative completion: 232 / 238)
- MoRD: District-wise data processing and integration of rule sets completed for Yuktdhara- MGNREGA Planning Portal

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 30.06.2022 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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