

**GOVERNMENT OF INDIA
DEPARTMENT OF SPACE**

Sub: Monthly Summary of Department of space for the month of August 2022

PART- I (Unclassified)

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

A. Satellite & Launch Vehicle Missions:

I. Small Satellite Launch Vehicle/EOS-02:

The first developmental flight of Small Satellite Launch Vehicle was accomplished on 7th August 2022. At the separation of the spacecraft, short fall in velocity leading to satellite injection to an unintended orbit was observed which led to the decay and de-orbiting of the spacecraft.

Post Flight Analysis (PFA) analysis is concluded and modifications for SSLV D-2 is being finalised.

II. LVM3-M2/OneWeb India-1 Commercial Mission

The first dedicated commercial mission of GSLV MkIII (LVM3-M2) is scheduled in the 3rd quarter of 2022. The mission will launch multiple communication satellites in a single launch for OneWeb.

III. PSLV-C54/EOS-06 Mission:

PSLV-C54 is scheduled to launch EOS-06, an earth observation satellite in the 3rd quarter of 2022. Various activities pertaining to spacecraft integration and tests are in advanced stages of progress for the scheduled launch.

IV. RLV-LEX Mission

First runway landing experiment [RLV-LEX] of Reusable Launch Vehicle – Technology Demonstrator is scheduled in the 3rd quarter of 2022 from Aeronautical Test Range, Chitradurga, Karnataka.

B. Earth Observations:

- **Agriculture Technology Project (for Govt. of Maharashtra):** Kharif crop sowing progress (crop-wise & annual variation) is analysed for the state of Maharashtra. District wise calibration of soybean crop growth model is carried out for simulating current season's soybean yield for Maharashtra.
- **Crop Insurance Support (for AICIL):** Crop health factor (CHF) along with data matrices for summer Groundnut, summer Moong, summer Til and summer Maize were finalized for different districts of west Bengal for zaid season 2021-22.
- **National Hydrology Project (NHP, for M/o Jal Shakti):** Actual Evapotranspiration (AET) products, Daily snow cover maps and daily simulated water balance components are generated, web-published and shared with NPMU-NHP, Ministry of Jal Shakti.

- **Biodiversity characterization at community level (for DBT):** Community level vegetation map has been generated for R.V. Nagar range, Andhra Pradesh using multi-sensor satellite data and machine learning algorithm.
- **GeoMGNREGA (for MoRD):** Rule sets are being evaluated for semi automated planning of assets through Yuktdhara portal.
- **Bhuvan Geoportal:** (i) updates released on 13 applications on Bhuvan (ii) Bhuvan-NHP portal is updated with monthly & fortnightly Evapo-Transpiration datasets; development of Irrigation & Soil moisture products' modules is initiated.
- **Disaster Management Support Programme (for MHA, NDMA, SDMAs):**
 - **National Database on Emergency Management (NDEM):** (i) A module is created for displaying battalion wise NDRF information & summary (ii) 550 historical flood layers of six states are integrated into NDEM Database.
 - **Near Real Time Flood Mapping & Monitoring:**
 - ❖ Floods in Andhra Pradesh, Telangana, Karnataka, Maharashtra, Bihar, Uttar Pradesh & Odisha were monitored and mapped. About 33 flood maps and 24 value added products were prepared using satellite datasets and provided to the concerned.
 - ❖ Damages due to floods in Andhra Pradesh and Telangana were mapped using Very High resolution satellite datasets acquired through the activation of International Charter and Sentinel Asia.
- **Satellite Data Acquisition and Dissemination:** 2,461 satellite passes were acquired and archived. About 23,700 satellite data products were downloaded through Bhuvan.

C. Capacity Building:

1.	"One day workshop on water quality studies using hyperspectral RS for the Indian coastal & inland waters" (Aug 08, 2022)	949 participants from 188 institutions
2.	MOOC course on "RS&GIS for Urban studies and environmental modeling" (07 July - 05 Aug, 2022)	1144 participants
3.	A one day awareness-cum-workshop on the application of UAV to the farmers and data acquisition of paddy fields at Umsning, was conducted jointly with (i) CPGS-AS, CAU (I), Umiam; and (ii) Ri-Bhoi Farmer's Union (RBFU), HQs Umsning under UAV-IIDS project (17 th Aug, 2022)	30 farmers participated
4.	Two-weeks customised training programme- "Basic course on RS, GIS & GNSS"	For 25 Officials from CAPFs (BSF, CRPF, ITBP, SSB) & IB

D. International Co-operation:

- Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) signed a Memorandum of Understanding with Geo-Informatics and Space Technology Development Agency (GISTDA), Thailand on August 03, 2022 for training and capacity building in space applications.
- A preparatory meeting held between the officials of ISRO and Italy's Gran Sasso Science Institute on August 29, 2022, where Italy presented details on their Lunar Gravitational-wave Antenna (LGWA) and ISRO presented details of its lunar seismometer in Chandrayaan-3.
- H.E. Mrs. Peggy Frantzen, Ambassador of Luxemburg to India visited URSC and had a meeting with Shri. Somanath S, Secretary, DOS/Chairman, ISRO on August 9, 2022.
- ISRO and Mauritius Research and Innovation Council (MRIC) are in discussion on using MRIC ground station for supporting India-Bhutan joint satellite mission.
- As part of the ongoing discussion on licensed production of Russian rocket engines in India, Glavkosmos officials had an inspection visit to L&T, Coimbatore during August 01-03, 2022 for evaluating the manufacturing facilities there.
- The NISAR Joint Steering Group (JSG) had its meeting on August 11, 2022 and discussed the NISAR status, SIT-4 schedule, project life cycle and other technical matters.

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):

- The Department has formulated the Swachhta Abhiyan Plan for the year 2022 and under this Swachhta Pakhwada was celebrated from 01.02.2022 to 15.02.2022 across DOS/ISRO Centres/Units Autonomous Bodies. A Sub-Committee has been constituted for evaluation of the activities carried out across DOS/ISRO Centres/Units/ABs/CPSEs during the Swachhta Pakhwada 2022. The evaluation for the best maintained Centre/Unit/Autonomous Body is under process.
- The decision that all the Scientific Departments in general and Institutes located in the Coastal Districts in particular may participate in the "Swachh Sagar Surakshit Sagar campaign" with all resources and wherewithal at disposal to support the campaign has been received. The Department has identified Vikram Sarabhai Space Centre (VSSC), Liquid Propulsion Systems Centre

(LPSC), Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, ISRO Propulsion Complex (IPRC), Mahendragiri and Satish Dhawan Space Centre (SDSC-SHAR), Sriharikota for the campaign by the Ministry of Earth Sciences (MoES) the (Nodal Ministry). The Department has forwarded the details of the Nodal Officer's of this Department to the Ministry of Earth Sciences (MoES).

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.

Action is being initiated to bring all the AB's under the Department namely, IIST, PRL, NARL & NESAC under Treasury Single Account before the end of financial year 2022-23.

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

- **M/o Rural Development:** Under the Integrated Watershed Management Programme (IWMP/ WDC-PMKSY) for monitoring Watersheds using Geospatial Technologies, 800 satellite images were provided to the states. 10,000 locations of watershed development interventions have been geotagged (cumulative 16.57 lakh geotags) and 345 summary reports were generated.
- **MoH & UA:** Final version of urban geospatial database for 5 AMRUT cities have been delivered (cumulative completion: 210 / 238).

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: - 19
- Number of posts totally vacant as on date: - 05
- Number of posts under premature repatriation - 00
- Number of posts under additional charge arrangement: - 04
- Number of posts that would fall vacant during the next 06 months: -00

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

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