

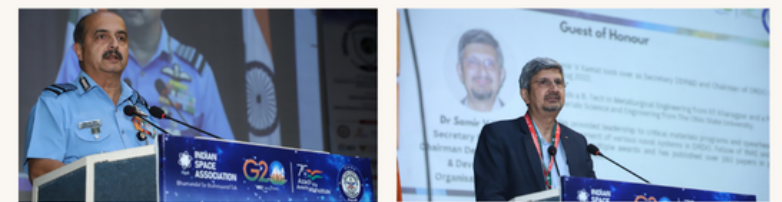


March 2023 Edition

IspA Newsletter catalogues all endeavours undertaken by IspA in the direction of propelling India's Space Sector forward.

HIGHLIGHTS OF THE MONTH

- ISRO LVM3/M3 successfully placed 36 OneWeb Satellites in the intended orbit.
- 40 OneWeb Satellites launched by SpaceX. OneWeb and Intelsat demonstrate hybrid inflight connectivity.
- OneWeb partners with MuSpace, VEON, and AWS, respectively.
- Pixxel has been awarded an NRO contract for Commercial Hyperspectral Capabilities for 5-year
- Dhruva Space has been awarded the Telecom Skill Excellence Award, by the DoT and Telangana State Industry Award by Telangana Government.
- Maxar unveiled the first global, Satellite imagery basemap at 30 cm HD resolution
- SISIR Radar has signed an MoU with IN-SPACe to develop cutting-edge remote sensing technology in India.
- Skyroot Aerospace received the Platinum Award at Telangana State Industry Awards in Hyderabad from Telangana Government.
- Astrome was named the Phase 3 winner of the DoT's 5G Hackathon and was awarded the prize.



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IspA- Indian Space Association

For General Queries: info@ispa.space, +91 9667303304

For Membership: Ms Aditi (aditi@ispa.space, +91 8437985777); coord@ispa.space

Members Bulletin

ISRO successfully placed 36 OneWeb Satellites in their intended orbit. LVM3 M3/ OneWeb India-2 Mission is accomplished successfully.



OneWeb successfully deployed 40 Satellites launched with SpaceX



OneWeb and Intelsat Demonstrate Hybrid Inflight Connectivity



OneWeb and MuSpace partners to provide LEO Services in Mainland Southeast Asia



OneWeb has signed a distribution agreement with a European telecom giant, Orange



OneWeb and VEON partners to deliver Seamless Communication and Digital Services



OneWeb announces a global agreement with AWS to expand both horizontal and vertical services to provide customizable and integrated solutions for edge-to-edge operations.



Pixxel has been awarded a National Reconnaissance Office (NRO) contract for Commercial Hyperspectral Capabilities for 5-year

Dassault Systèmes has joined hands with MapmyIndia Mappils (C.E. Info Systems) to deliver end-to-end value-added virtual twin experience solutions for India's digital and resilient urban infrastructure development



Dhruva Space won at the Innovation For India Awards under the Innovation category by Marico Innovation Foundation

Dhruva Space has been awarded the Pandit Deendayal Upadhyaya Telecom Skill Excellence Award, by the Ministry of Telecommunication, Government of India



The MoA between Dhruva Space and Kinéis IoT was signed at the SATELLITE 2023, to establish Space assets and offer satellite-based services



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Dhruva Space has been recognised with Telangana State Industry Award 'Best Startup - Silver', by Hon Minister for Municipal Admin & Urban Dev, Industry & Commerce, ITE&C



Maxar unveiled the first global, Satellite imagery basemap at 30 cm HD resolution, including ~400,000 individual image strips that together offer visually consistent, virtually cloudless, current & seamless Vivid coverage.

SISIR Radar has signed an MoU with IN-SPACE for collaborations to develop cutting-edge remote sensing technology in India.



Skyroot Aerospace received the Platinum Award as Best Start-Up from Hon Minister for Municipal Admin & Urban Dev, Industry & Commerce, ITE&C at the Telangana State Industry Awards in Hyderabad

Bharat Forge Limited received the "Best CSR Project of the Year Award 2023" by UBS Forum in the 7th Edition of Corporate Social Responsibility Awards, held on 14th March 2023 at ITC Grand Maratha, Mumbai



Astrome has been selected by GLOMO Awards at the Mobile World Congress as one of the Top 5 companies under the "Best Digital Tech Breakthrough for companies with under \$10 million Annual Global Revenue"

Astrome declared as Phase 3 winners of 5G Hackathon organized by the DoT and received award at Delhi from the Hon'ble Union and Communications Minister Shri Ashwini Vaishnaw



Space Kidz India announced the Finalists of the 9th edition Young Scientist India



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IspA Recommendations - TRAI Consultation Paper on Telecommunication Infrastructure Sharing, Spectrum Sharing, and Spectrum Leasing

- **The satellite industry is best positioned to promote connectivity in areas that lack essential access to fast and reliable communications networks.**
- Concerns that shared use of spectrum causes a loss of revenue to the government and the waste of a scarce natural resource simply do not apply to satellite-based services.
- Authorized Shared Access (ASA) of spectrum should be permitted between incumbent government primary users holding such spectrum and the access/satcom services providers who are secondary users.
- With respect to Satellite services, Infrastructure sharing should be allowed for passive networks as well as active networks as in NGSO, the same network will be shared across multiple service licensees.
- The infrastructure sharing charges should be allowed as pass-through while determining AGR for the purposes of payment of License Fee (LF) and Spectrum Usage Charge (SUC) in case of Unified License (UL), just like UL-VNO

IspA Recommendations - TRAI Consultation Paper on Data Communication Services Between Aircraft and Ground Stations Provided by Organizations Other Than Airports Authority of India

- Unified Licensing framework is needed for such Data Communication Services as a separate authorization under the UL. This is also consistent with approach taken in case of Captive Non-Public Networks (CNPN) licensing.
- Spectrum assignment to be continued on administrative basis. Internationally too this spectrum is learnt to be allocated administratively. Recover the associated cost of administering the spectrum license.
- The spectrum should not be used for providing services of any sort to customers onboard the flight or any access services to customers by using VHF spectrum.

Umagine 2023: Technology, Entrepreneurship & Skills Summit

Chennai, Tamil Nadu, India - The Global Technology, Entrepreneurship & Skills Summit, held from March 23 to 25, was a resounding success, drawing experts and innovators from around the world to discuss the latest advancements in technology, entrepreneurship, and skills development. As the space industry continues to grow, it is becoming increasingly important to establish a legal and regulatory framework to govern space activities. "Space Law, Economy & Tourism" covered the emerging opportunities in the space industry, and explored key legal and economic questions faced by entities in the industry. It also covered the newest developments in space tourism. DG IspA gave a presentation at the event.



Naval War College: Cutting-edge Developments in Satellite Technology

NAVAL WAR COLLEGE



Director IspA- Wg Cdr Satyam Kushwaha (Retd) was invited to deliver a talk on 'Cutting Edge Developments in Satellite Technology' for the 35th Naval Higher Command Course (NHCC) at the Naval War College (NWC) in Goa. The NHCC is a program designed to prepare senior leaders and policymakers of the Indian Armed Forces, with a focus on national security, strategy, and technology.

Joint Meeting for Mission DefSpace Composite Challenge No 5,10 & 14

A joint meeting was organized at IspA, USI building in New Delhi for the Defspace Composite Challenge No 5, 10, 14 posed by IAF. Representatives from IAF, DSA, IspA, and relevant industries gathered to finalize the feasibility report and Performance and System Qualitative Requirements (PSQRs). The meeting aimed to exchange ideas for effective resolution and develop a comprehensive plan of action for addressing the challenges.



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Advanced Darksky Observatory inaugurated at IIT-Hyderabad

28 Feb 2023
Telangana Today



ISRO successfully test fires cryogenic engine that will help Chandryaan-3 begin journey to Moon

28 Feb 2023
WION News



ISRO's STIC bags three advanced projects

2 March 2023
The New Indian Express



ISRO-launched satellite beats its own shelf-life! completes decade, continues to provide service

2 Mar 2023
India TV



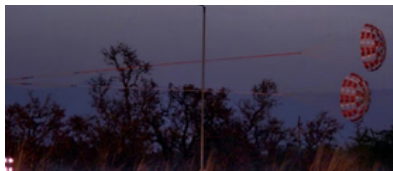
Bengaluru to host Space Economy Leaders' Meet

5 Mar 2023
The Hindu



IN-SPACE space tech course takes off at two IITs

6 Mar 2023
The Times of India



Gaganyaan mission: Isro conducts big test, simulates deployment of parachutes

7 Mar 2023
India Today



Tamil Nadu to set up space park near upcoming Kulasekarapattinam spaceport

7 Mar 2023
The Hindu Business Line



Defunct Indo-French satellite 'Megha-Tropiques' now in pieces, laid to rest in Pacific Ocean

8 Mar 2023
WION News



ISRO gets ready to launch Earth Science Mission – NISAR in 2024

10 Mar 2023
The Financial Express



IN-SPACE announces seed fund of up to Rs 1 crore for startups

14 Mar 2023
The Times of India



ISRO officials and Bhutan government inaugurate ground station of Indo-Bhutan satellite

14 Mar 2023
WION News

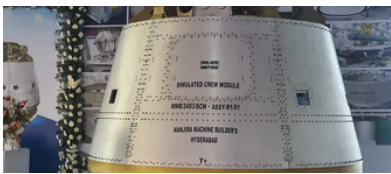
CSIR labs can develop materials for space programme: S. Unnikrishnan Nair

15 Mar 2023
The Hindu



Key Adani investor Elara co-owner with Adani in defence firm

15 Mar 2023
The Indian Express

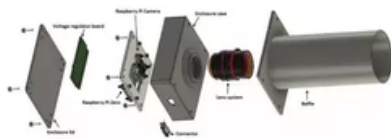


First Test Abort Flight Of India's Maiden Manned Space Mission Planned In May: Govt

16 Mar 2023
Swarajya

Bengaluru astronomers, collaborators build new low-cost star sensors for satellites

16 Mar 2023
The Times of India



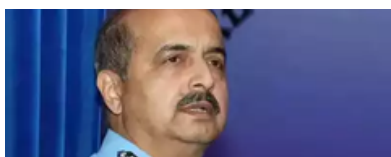
BTech in Space Science and Engineering – New Program Launched by IIT Indore

20 Mar 2023
The Hindu



India needs to develop both offensive and defensive space capabilities: IAF chief

22 Mar 2023
The Times of India





India eyes active role in designing global policies on 6G, satcom

21 Mar 2023
Business Standard



India, Taiwanese space-tech bodies tie up to support startups

23 Mar 2023
Fortune India



Isro lists 100 technologies for local industries

26 Mar 2023
The Times of India



Nelco object to telcos' stance on spectrum sharing

27 Mar 2023
ET Satcom

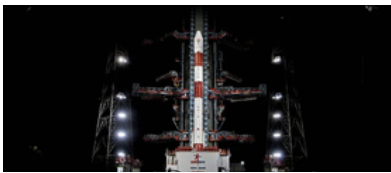
Cabinet approves bill to create Goa's geospatial Data Infrastructure

28 Mar 2023
The Times of India



Mission Shakti: Four years later more needs to be done: expert

28 Mar 2023
The Financial Express



India's PSLV to launch Europe's Proba-3 mission to unravel secrets of the Sun

29 Mar 2023
India Today



India unveils space design lab for start-ups

30 Mar 2023
The Economic Times



After Navy & IAF, Army to get dedicated satellite Gsat-7B as MoD inks Rs 3k cr deal with NSIL

31 Mar 2023
The Times of India

USA



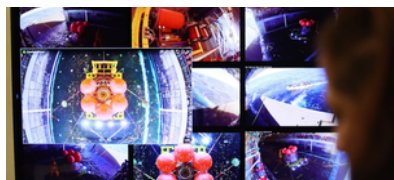
Apple lends American satellite communications company Globalstar \$252 million

1 Mar 2023
Republic World



Thousands of satellites are launched into low orbit. It could harm the ozone layer

5 Mar 2023
The Washington Post



Artemis Accords: The Space Race Enters the Economic Era

8 Mar 2023
Foreign Policy



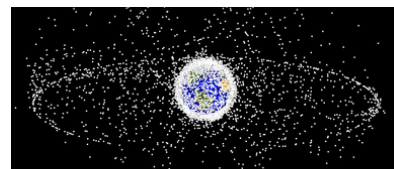
Space as battleground: US officials want to set up rules of engagement and warfare in Space

9 Mar 2023
Firstpost



NASA's OCO-2 satellite tracks carbon emissions for over 100 countries

9 Mar 2023
CNBC TV18



Starlink, OneWeb-Like Satellites Are Rapidly Congesting The Outer Space; How Real Is The Collision Threat?

13 Mar 2023
Eurasian Times



NASA planning to spend up to \$1 billion on space station deorbit module

13 Mar 2023
SpaceNews



Amazon targets 2024 launch of first Kuiper internet satellites

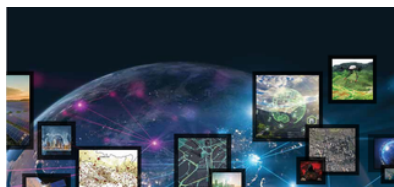
15 Mar 2023
ET Satcom

USA



NASA, Axiom Space gear up for Artemis III moon mission, unveil new spacesuit. Details here

15 Mar 2023
The Economic Times



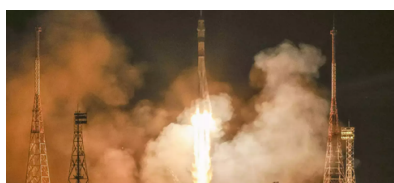
National Mapping Agencies Redefining Their Role

15 Mar 2023
Geospatial World



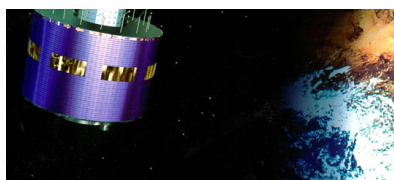
FCC proposes satellite-to-phone rules to eliminate 'no signal' once and for all

17 Mar 2023
TechCrunch



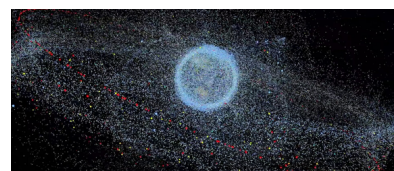
Scientists call out light pollution from LEO satellites

22 Mar 2023
ET Satcom



Our Space Junk Problem Just Got a Cheap Solution

23 Mar 2023
Bloomberg News



Why the Space Industry Needs the FCC's New Anti-Debris Regulations

27 Mar 2023
Via Satellite



Apple's Emergency SOS via satellite expands to 6 more countries: What is it, Android competitor and more

28 Mar 2023
The Times of India



Lockheed Martin is building a Moon-to-Earth satellite communications network

29 Mar 2023
Yahoo Finance

CHINA

China launches secretive Horus 1 remote-sensing satellite

1 Mar 2023
Space.com



China launches 2nd Horus remote-sensing satellite for Egypt

15 Mar 2023
Space.com



The Rise of China's Space Program

3 Mar 2023
Geospatial World

China is developing a quantum communications satellite network

10 Mar 2023
SpaceNews

Space is next frontier: As China pushes ahead, India needs to bridge the gap

19 Mar 2023
FirstPost

China launches four meteorological satellites

22 Mar 2023
Global Times

Is China trying to hack into satellite communication as part of asymmetric warfare?

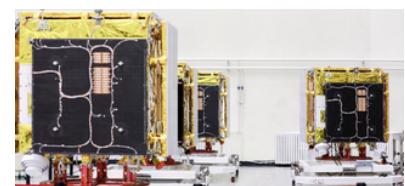
26 Mar 2023
India Narrative

Chinese defense contractor to begin launching VLEO satellites

30 Mar 2023
Space News

China launches four satellites, establishing first wheel-pattern formation in space

31 Mar 2023
Global Times



Other Nations



Japan's Space Agency Names A Surgeon And A Scientist As Its First New Astronaut Candidates In 13 Years: Report

28 Feb 2023
ABP Live



Sompo Japan Insurance to offer satellite coverage, details here

9 Mar 2023
Firstpost



Japan's budding space program grounded by persistent setbacks

20 Mar 2023
The Japan Times



UK clears Viasat's multi-billion-dollar buyout of satellite rival Inmarsat

2 Mar 2023
ET Satcom



Inside the UK's resurrected deep space hub helping astronauts return to the Moon

11 Mar 2023
BBC Science Focus

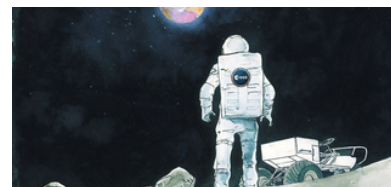


European Union to build its own satellite-internet constellation

2 Mar 2023
Space.com

Europe's backlog of space missions worsened by rocket woes

3 Mar 2023
Nature



Europe risks being 'a spectator in next space race'

23 Mar 2023
BBC News

Other Nations

Satellites could beam poorest nations out of digital desert

5 Mar 2023
ET Satcom



Developments in Asia-Pacific's Space Industry

6 Mar 2023
The Diplomat



Nokia gears up to launch 4G mobile network on moon this year

30 Mar 2023
Mint



How Middle Eastern ambitions are fueling the space industry

7 Mar 2023
Quartz



Saudi space mission aiming to benefit science

19 Mar 2023
Arab News



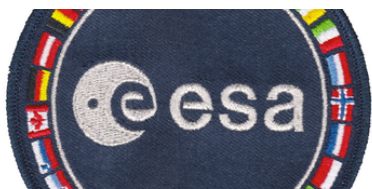
Israel launches new Ofek-13 spy satellite into orbit

29 Mar 2023
The Times of Israel



Spain's race to space about to blast off with reusable rocket launch

13 Mar 2023
The Print



Spain establishes its own space agency

30 Mar 2023
Space.com

Job Openings from our Members



<https://www.dhruvaspace.com/careers>



<https://www.linkedin.com/company/digantara/jobs/>



<https://galaxeye.zohorecruit.in/careers>



<https://maxar.wd1.myworkdayjobs.com/MAXAR>



<https://www.pixxel.space/careers>



<https://www.linkedin.com/company/skyserve-ai/jobs/>



<https://www.spacekidzindia.in/careers/>



<https://tsctech.in/#/careers>



<https://xovian.zohorecruit.com/jobs/Careers>

TRAI Consultation Paper on Assignment of Spectrum for Space-based Communication Services

<https://www.trai.gov.in/consultation-paper-assignment-spectrum-space-based-communication-services>

Last Date for Comments: 04 May 2023

Last Date for Counter Comments: 18 May 2023

TRAI Consultation Paper on Introduction of Digital Connectivity Infrastructure Provider (DCIP) Authorization under Unified License (UL)

<https://www.trai.gov.in/consultation-paper-introduction-digital-connectivity-infrastructure-provider-dcip-authorization>

Last Date for Comments: 06 April 2023

Last Date for Counter Comments: 20 April 2023

TRAI Consultation Paper on Regulating Converged Digital Technologies and Services - Enabling Convergence of Carriage of Broadcasting and Telecommunication services

<https://www.trai.gov.in/notifications/press-release/trai-issues-consultation-paper-regulating-converged-digital-technologies>

Last Date for Comments: 03 April 2023

Last Date for Counter Comments: 17 April 2023

TRAI releases Consultation Paper on Telecommunication Infrastructure Sharing, Spectrum Sharing, and Spectrum Leasing

<https://www.trai.gov.in/consultation-paper-telecommunication-infrastructure-sharing-spectrum-sharing-and-spectrum-leasing>

Department of Science & Technology releases National Geospatial Policy 2022

<https://www.meity.gov.in/content/digital-personal-data-protection-bill-2022>

TRAI Recommendations on Licensing Framework for Establishing and Operating Satellite Earth Station Gateway (SESG)

<https://www.trai.gov.in/notifications/press-release/trai-releases-recommendations-licensing-framework-establishing-and>

Upcoming Events

21-23 April 2023	UPES - 3rd National Space Convention (NSC) 2023	Dehradun
28 April 2023	Customized Space Capsule-Military Intelligence School	Pune
06-07 June 2023	ISpA Space Track - Geointelligence 2023	New Delhi
05-10 June 2023	IN-SPACe-ISpA: International Space Week 2023	Ahmedabad
08-09 June 2023	International Conference on Spacecraft Mission Operations: SMOPS-2023	Bengaluru
06-07 July 2023	Space 20: Leaders Meeting of G20 Nations	Shillong
10-12 October 2023	Indian Space Conclave 2023	New Delhi

CALL FOR NEW MEMBERSHIP

ISpA is an apex, non-profit industry body exclusively working towards the successful exploration, collaboration, and development of the private and public Space Industry in India.

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- Participate in policy advocacy
- Networking and publicity opportunities
- Plethora of opportunities to advance your Business in Space Sector
- Multisectoral Partnerships
- Engagement with industry and defence experts via diverse platforms
- Access to industry-related information via reports and newsletters
- Be a part of ISpA Committees to bring expertise & interests and to guarantee the holistic development of the space sector.

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