

NEWSLETTER

INDIAN SPACE ASSOCIATION

EXPLORING THE FINAL FRONTIER:

ISpA Newsletter Unveils Future of Sustainable Space Exploration



Welcome to **ISpA Newsletter**, a trusted conduit for illuminating the latest strategic endeavours, technological innovations and industry insights shaping the future of sustainable space exploration.

HIGHLIGHTS OF THE MONTH

- PM Modi To Visit Brunei, Hold Bilateral Talks On Space, Defence
- Indian Space Giants Collaborate To Form Bharat Space Collective, Aiming For Global Leadership
- ISRO Chairman Somanath to launch cybersecurity R&D centre
- Need for cybersecurity tools evident as India's space capabilities grow: ISRO chairman
- Bengaluru Space Expo - 2024 to be held from September 18 to 20
- US Space Force to help set up semiconductor plant in India
- Indian Space Station will enable research in Bioastronautics, biological research, drug discovery: Isro Chairman
- Cabinet approval for Chandrayaan-4: Great power competition heats up in space
- NASA's advanced composite Solar Sail System successfully deploys in space
- War game reveals Chinese attacks on communications could paralyze Taiwan
- Australian Space Agency head visits Chennai to explore opportunities for collaboration in space industry ecosystem in T.N.

MEMBERS BULLETIN



EUTELSAT ONEWEB

- Eutelsat OneWeb Group partnered with SoftBank to integrate their LEO connectivity services, targeting high-speed, secure communications for corporations and government clients.
- The partnership will integrate with SoftBank's "SmartVPN" for added security, initially focusing on Japan with potential expansion to other markets.
- Eutelsat OneWeb launched a new PNT service called Astra to address GPS vulnerabilities to jamming and interference in critical sectors.
- Astra utilizes alternative PNT signals, such as those from Iridium satellites, and provides a compatible output for standard GPS receivers.
- Different versions of Astra will be available for the U.S. government and allied nations, enhancing secure and resilient navigation capabilities.



SPACEFIELDS

- SpaceFields, an IISc-incubated startup, successfully tested India's first aerospike rocket engine at the IISc Propulsion Test Facility in Challakere, Chitradurga.
- The 168 mm aerospike engine achieved stable combustion after initial instability, reaching a peak thrust of 2000 Newtons with a maximum pressure of 11 bar.
- The engine delivered 54,485.9 Newton-seconds of impulse, demonstrating its efficiency across varying altitudes due to the aerospike design's adaptability to atmospheric pressure changes.



OMSPACE

- Ahmedabad-based OmSpace Rocket and Exploration Pvt. Ltd. successfully conducted a hot fire test of its Infinity rocket engine.
- The Infinity launch vehicle is designed to deploy nanosatellites and microsatellites into Low Earth Orbit with an environmentally friendly fuel and rapid 24-hour relaunch capability.
- The reusable electric rocket incorporates advanced technologies like metal 3D printing, a miniaturized avionics package, and composite materials.
- Capable of placing payloads up to 800 km in orbit, the Infinity rocket offers customizable, low-cost access to space for small satellite missions.

MEMBERS BULLETIN



INTELSAT

- IntelSat announced plans to provide multi-orbit solutions across its business units by mid-2025.
- The new strategy combines geostationary satellites with Low Earth Orbit partnerships to enhance capabilities and cost-effectiveness.
- IntelSat's multi-orbit services will target sectors like commercial aviation, government, and mobility applications, offering improved performance, resiliency, and flexibility.
- Strategic investments in new terminal technologies are central to this expansion, enabling reliable, high-performance connectivity across diverse applications.



KALEIDEO

- KaleidEO Space Systems, part of SatSure Analytics India, launched a new earth observation payload with optimized area coverage and high-resolution imaging.
- The payload achieves nearly 1-meter GSD while capturing a 65 km swath.
- After successful aerial testing with a prototype capturing 16 cm resolution images, the payload is tailored to industry demand for large-area imaging and scalable automated analytics.
- This approach focuses on 'Demand First', aligning payload capabilities with industry needs for efficient data acquisition and analysis.



BELLATRIX

- Bellatrix Aerospace, a Bengaluru-based startup, unveiled Project 200, an ultra-low Earth orbit (ULEO) satellite, at the Bengaluru Space Expo 2024.
- Designed to operate between 180 km and 250 km, Project 200 aims to revolutionize satellite capabilities with its innovative propulsion system.
- This technology demonstration mission will support high-resolution earth observation, telecommunications, and scientific research, offering transformative connectivity and imaging applications at ultra-low altitudes.

MEMBERS BULLETIN



GALAXEYE

- Infosys announced an investment of up to Rs 17 crore (approximately \$2 million) in GalaxEye Space Solutions, an Indian Earth-observation startup, as part of its innovation Fund.
- The investment will be made through equity and Series A convertible preference shares, with Infosys acquiring a minority stake of up to 20% in GalaxEye.
- This collaboration will focus on Satellite Data Fusion, AI-driven Analytics, and next-gen space technologies, aiming to reshape space technology and earth observation applications.
- The deal is expected to close by September 30, 2024.



PIXXEL

- Pixxel became the first Indian space startup to secure a contract with NASA.
- Pixxel will supply hyperspectral earth observation data as part of NASA's \$476-million commercial smallsat data acquisition program.
- The program, running through November 2028, will support NASA, the US government, and academic partners in advancing earth science research and applications.
- This marks a major milestone for Indian private space companies since the sector opened to private entities in 2020.



ISRO

INDIAN SPACE RESEARCH ORGANISATION

ISRO AND IIG SIGN MOU FOR SCIENTIFIC COLLABORATION

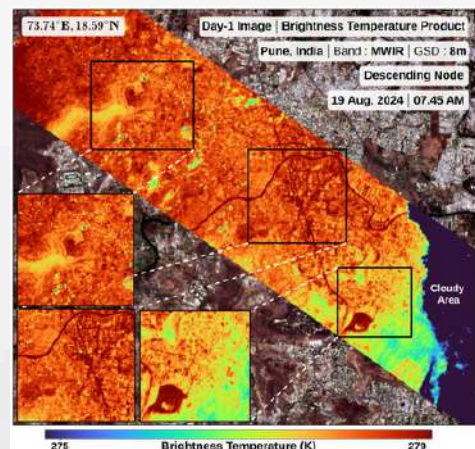
Indian Space Research Organisation (ISRO), Department of Space, has signed an MOU with the Indian Institute of Geomagnetism (IIG), an autonomous institute under the Department of Science and Technology, Government of India, for scientific collaboration in the domain of space science, technology and exploration, on September 4, 2024. The event took place in ISRO Headquarters, Bengaluru, and was presided by Dr. Somanath S., Chairman, ISRO / Secretary, DOS. The MOU was signed by Shri Shantanu Bhatawdekar, Scientific Secretary, ISRO from the ISRO side, and Prof. A.P. Dimri, Director, IIG, from the IIG side. The witnesses were Dr. Tirtha Pratim Das, Director, Science Programme Office, ISRO Headquarters, Dr. Jagadheesha D, Deputy Director, Science Programme Office, ISRO Headquarters, Prof. S. Gurubaran, Professor, IIG, and Shri Ashutosh Shukla, Registrar, IIG. This collaboration will facilitate formulation of joint programme in the scientific understanding of the Sun-Earth connection, as well as exploration of space.



EOIR PAYLOAD ON EOS-08 BEGINS OPERATIONS, OFFERING EXCELLENT THERMAL IMAGING CAPABILITIES

The Electro Optical-Infrared (EOIR) payload on board EOS-08, ISRO's latest Earth Observation Satellite, launched through the third developmental flight of ISRO's Small Satellite Launch Vehicle (SSLV) on August 16, 2024, has commenced its operations ([EOS-08 Mission](#)). EOIR is a state-of-the-art payload aboard EOS-08, along with the Global Navigation Satellite System-Reflectometry (GNSS-R) payload and the SiC UV Dosimeter. Developed by the Space Applications Centre (SAC-ISRO), the EOIR payload is equipped with advanced mid-wave infrared (MIR) and long-wave infrared (LWIR) channels, marking a significant advancement in thermal imaging technology with its high performance.

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ISRO

INDIAN SPACE RESEARCH ORGANISATION

ISRO CONDUCTS FLIGHT EXPERIMENT OF AIR BREATHING PROPULSION SYSTEM

H.E. Mr. Hakan Jevrell, State Secretary for Foreign Trade, Ministry for International Development Cooperation and Foreign Trade, Sweden met Dr Somanath S, Chairman ISRO & Secretary, DOS at Antariksh Bhavan, Bengaluru on September 25, 2024. The ongoing interactions in the field of space between India and Sweden and potential future collaboration opportunities in the areas of optical ground stations, utilising Sweden's Esrange Space Center, exchange of experts for space research and participation in ISRO's future space exploration missions were discussed during this meeting.



IspA ACTIVITIES

THE ENTREPRENEUR 2024 SUMMIT SEPTEMBER 04, 2024:

- DG ISpA moderated a session titled "To Infinity and Beyond! The Future of Space Tech" at Entrepreneur 2024 Summit.
- Industry leaders discussed the vast potential of space exploration.
- The session highlighted space tech's transformative impact on our world.



VISIT TO DIGANTRA HEADQUARTER SEPTEMBER 11, 2024:

- DG ISpA visited Digantra headquarter, an Indian space startup focused on space domain awareness and debris detection.
- Noted impressive progress by the team.
- Commended cofounders Tanveer, Anirudh, and Rahul for their work.



THE EMERGING PRIVATE SPACE ECOSYSTEM IN INDIA SEPTEMBER 9-13, 2024:

- DG ISpA, presented on "The Emerging Private Space Ecosystem in India: Leveraging it for the Armed Forces".
- The talk was part of the HQ IDS Core Programme at The United Service Institution of India, New Delhi, from Sept 9-13, 2024.
- Attended by senior Armed Forces officers.



ISpA ACTIVITIES

BENGALURU SPACE EXPO 2024 SEPTEMBER 20, 2024:

- DG ISpA, participated as a panelist in the session "A Global Destiny: International Collaborations in Space Sector."
- The session was part of the 8th Confederation of Indian Industries Bengaluru Space Expo 2024 in Bengaluru, Karnataka.



HANDS-ON TRAINING AND WORKSHOP ON SPECIAL USE CASES OF AI SEPTEMBER 25, 2024:

- DG ISpA attended as Guest of Honour for the "Hands-on Training and Workshop on Special Use Cases of AI."
- The event was organized by Cyran AI Solutions at the Research & Innovation Park, IIT-Delhi.



SPACETECH WEBINAR #05 SEPTEMBER 26, 2024:

- ISpA hosted SpaceTech Webinar #05 titled "Bridging the Gap: Geospatial Technology Solutions in Agriculture" on September 26, 2024.
- The session featured Dr. C S Murthy, Former Director of MNCFC, as the expert speaker.
- The webinar, held from 11:00 AM to 1:00 PM (IST), focused on the role of geospatial technology in advancing agricultural solutions.



IspA ACTIVITIES

TELECOM LEADERSHIP FORUM SEPTEMBER 25, 2024:

- The 6th Edition of the Telecom Leadership Forum took place in Delhi, marking 30 years of Voice&Data.
- DG ISpA represented the satellite communication (satcom) sector and discussed the new dimension of ubiquitous communication.
- Highlighted satcom, alongside 6G, as a key driver for Digital India's growth.



BROADBAND INDIA SUMMIT SEPTEMBER 27, 2024:

- DG ISpA, Lt Gen AK Bhatt (Retd), shared the satcom perspective in a panel discussion on "Technology and Infrastructure: Building the Foundation for Digital Bharat."
- The session was part of the 2nd Broadband India Summit 2024 in New Delhi.



ISpA IN NEWS

The Missing Piece in India's Space-Tech Puzzle

01 Sept 2024
Outlook Business

Houston, We Have a Problem | Indian space-tech start-ups are running out of fuel just as they reach critical altitude

04 Sept 2024
Outlook Business

How India is driving global space economy's growth | NASA and ISRO | Economic Brief

13 Sept 2024
DD India

ISPA welcomes enhanced funding for Gaganyaan, sanction for NGLV project

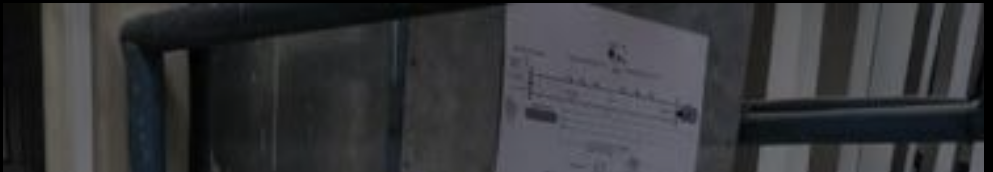
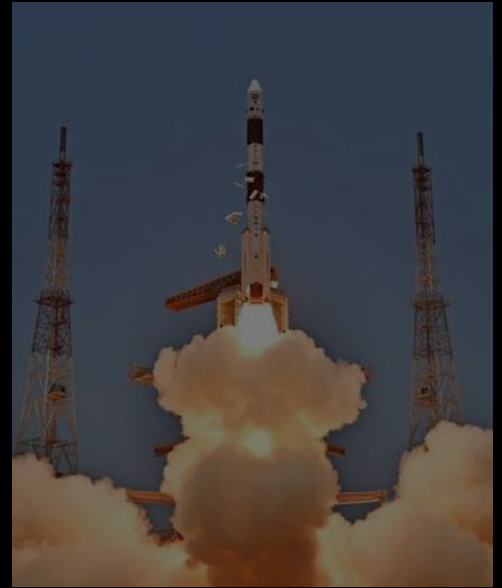
19 Sept 2024
United News of India

Cabinet approves Chandrayaan-4 mission, first module of Bharatiya Antariksh Station, Venus mission, next-gen launcher

19 Sept 2024
The Times of India

54 new spacetechn startups in 2023 represent new opportunities for India

18 Sept 2024
Business Standard



NATIONAL NEWS



NATIONAL NEWS

'First-of-its-kind' space travel reality series to get \$50 million from Banijay Asia

02 Sept 2024
The Economic Times

"Space exploration pushes the boundaries of human potential"

01 Sept 2024
The Hindu

World looks up to India in space race says ISRO scientist Sreenath Rathnakumar

01 Sept 2024
The New Indian Express

PM Modi To Visit Brunei Today, Hold Bilateral Talks On Space, Defence

03 Sept 2024
NDTV

Indian Space Giants Collaborate To Form Bharat Space Collective, Aiming For Global Leadership

03 Sept 2024
NewsX

A Chennai space startup is projecting ₹100 crore rev in 2 years, wants ₹50 crore funding

03 Sept 2024
CNBC TV18

Why space diplomacy is a critical component of India-Brunei relations

05 Sept 2024
Firstpost

NSIL gives satcom thrust to fishing vessels, 400 terminals installed

05 Sept 2024
Deccan Herald

Raja Ramanna Advanced Technology Centre & ISRO's Liquid Propulsion System Centre Signed MoU; Rocket tech To Materialise In 2 Years

05 Sept 2024
Free Press Journal

ISRO chairman Somanath to launch cybersecurity R&D centre near airport on Thursday

04 Sept 2024
The Economic Times

Need for cybersecurity tools evident as India's space capabilities grow: ISRO chairman

05 Sept 2024
Hindustan Times

Newer systems being added to astronaut training facility in Bengaluru: VSSC director

05 Sept 2024
The Economic Times

No interim spectrum likely for OneWeb, Jio to start satellite services

05 Sept 2024
The Financial Express

Private space startups gain from Isro's support, but face significant risks

05 Sept 2024
Business Standard

ISRO chief laments India's lag in core IT product development

06 Sept 2024
The Times of India

ISRO, IIG inks pact for Scientific Collaboration and space exploration

06 Sept 2024
United News of India

India's spacefarers get takeoff tips from the government

09 Sept 2024
Mint

Bengaluru Space Expo - 2024 to be held from September 18 to 20

07 Sept 2024
The Hindu

Satcom firms looks to tap \$19 billion unserved broadband market in India

07 Sept 2024
The Financial Express

India, Bhutan look forward to harnessing space science for betterment of people

06 Sept 2024
Deccan Herald

8th edition of Bengaluru Space Expo next week

10 Sept 2024
The Times of India

India revises National Highways rules: Free travel up to 20 km for GNSS-equipped vehicles

10 Sept 2024
CNBC TV18

₹100 crore for T's dedicated MSME policy

12 Sept 2024
The Times of India

India's space economy set for takeoff: with a ₹35,200 crore boost by 2033, what's the flight path to 2047?

13 Sept 2024
Business Today

Next-Gen Radars, Satellites And Supercomputers To Power India's Rs 2,000 Crore 'Mission Mausam': What You Need To Know

12 Sept 2024
Swarajya

Watch: How India is building its space sector ecosystem

15 Sept 2024
The Hindu

Isro official calls for innovative solutions to construction debris problem

14 Sept 2024
The Times of India

India's Pseudo-Satellite: Solar Plane That Can Fly For 90 Days At A Time

14 Sept 2024
NDTV

Future of Indian space exploration: Public-private partnerships, says Pawan Chandana

14 Sept 2024
India Today

Jaipur Watch Company inks MoU with Indian Space Research Organisation, to launch 'Missions of ISRO' watches

14 Sept 2024
Moneycontrol

NATIONAL NEWS

Satellite launching spree to tie-ups with 60+ countries, why India is scaling up its space diplomacy

16 Sept 2024
ThePrint

Gaganyaan tracking station site finalised, Aus-India sats to launch On SSLV, skyroot rocket

18 Sept 2024
The Times of India

India's Space Diplomacy: Partnering For Sustainable Development And Regional Cooperation - Analysis

18 Sept 2024
Eurasia Review

Downstream spacetech is workhorse of India's space sector: Experts

20 Sept 2024
The Economic Times

Enhancing India's space-tech manufacturing ecosystem

20 Sept 2024
Deccan Herald

ISRO satellite's key payload starts ops, offers excellent thermal imaging capabilities

19 Sept 2024
The Economic Times

Salesforce Eyes Expansion in India with New Space and Domestic Growth

19 Sept 2024
Devdiscourse

US Space Force to help set up semiconductor plant in India

22 Sept 2024
The Times of India

Indian Space Station will enable research in Bioastronautics, biological research, drug discovery: Isro Chairman

21 Sept 2024
The Economic Times

'Robots Will Operate India's Space Station Before Astronauts Call It Their Base': ISRO Chief Shares Exclusive Details

21 Sept 2024
News18

ISRO, IN-SPACe, and NSIL: Fueling India's Private Space Ambitions with 75 Technology Transfer Agreements

21 Sept 2024
PC-Tablet

Exclusive: ISRO Chief Explains What India Plans To Achieve With Chandrayaan-4

20 Sept 2024
NDTV

India's first human space flight program Gaganyaan likely to be launched by year-end, says ISRO chief S Somnath

20 Sept 2024
The Financial Express

Chandrayaan-3 Success Boosts US-India Space Collaboration; Joint Research to Expand by 2025

24 Sept 2024
Newsx

Major Boost to India-US Bilateral Ties: US Space Force to Help India Set Up Semiconductor Plant

23 Sept 2024
Republic World

Indian entrepreneur's firm announces space medical research collaboration with Axiom Space

25 Sept 2024
Daily Excelsior

Satcom associations divided on merging VSAT, GMPCS licences

24 Sept 2024
The Economic Times

'TRAI recommendation for single authorisation for satellite communication will help bridge digital divide': BIF

24 Sept 2024
The New Indian Express

India Will Soon Be the Third Country with Its Own Space Station: A Historic Leap in Space Exploration

24 Sept 2024
YourStory

India, UK launch women in space leadership programme

25 Sept 2024
The Times of India

Telcos can operate under existing licences till they are valid: Trai

25 Sept 2024
The Economic Times

Karnataka space policy seeks to build startup market with DRDO boost

25 Sept 2024
Mint

Piyush Goyal says India will become a major exporter for space, clean tech and renewable energy components

25 Sept 2024
CNBC TV18

Vodafone, Intelsat expand satellite connectivity for public, private sectors

25 Sept 2024
Communications Today

New era of Space exploration: India's First POEM Experience Centre set up in Ahmedabad

26 Sept 2024
The Financial Express

India's Space Journey from 1962 to AI Autonomous Landings in 2024

26 Sept 2024
Analytics India Magazine

Cabinet approval for Chandrayaan-4: Great power competition heats up in space

26 Sept 2024
Firstpost

ISRO shared resources and knowledge to fuel India's spacetech startups: Chairman S Somanath

26 Sept 2024
YourStory

ISRO chief hails Dr Kalam's legacy and mentorship

26 Sept 2024
YourStory

India achieving what others can't despite spending much more budgets: Sweden's Ambassador hails India's space missions

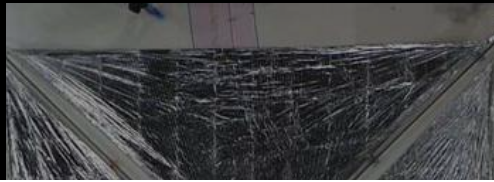
28 Sept 2024
ANI News

NATIONAL NEWS

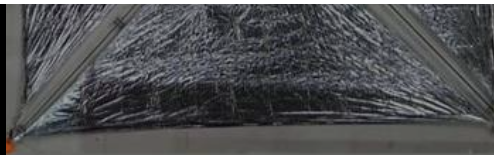
IIT Kanpur Launches India's First Detonation Tube; ISRO & DRDO Fund Project To Advance Aerospace
28 Sept 2024
Free Press Journal

Safety of astronauts is of paramount importance, says ISRO chairman
27 Sept 2024
The Hindu

NSIL, Malaysian firm tie up to enhance satellite capacity for DTH, broadcasting services
27 Sept 2024
Deccan Herald



INTERNATIONAL NEWS



INTERNATIONAL NEWS

USA

Elon Musk to celebrate PM Meloni as Italy eyes space sector investment

03 Sept 2024
Business Standard

NASA breaks silence on 'strange noise' coming from faulty Boeing Starliner

02 Sept 2024
Hindustan Times

Starlink will handle 90 per cent of space-based internet traffic by 2025: Elon Musk

02 Sept 2024
India TV News

Starlink backtracks, complies with order blocking X in Brazil, says regulator

04 Sept 2024
ET Telecom

Space startups eye opportunities in the orbital surveillance market

03 Sept 2024
Space News

Shelved NASA spacecraft could spy on asteroid Apophis before 2029 Earth flyby

03 Sept 2024
Space.com

NASA's advanced composite Solar Sail System successfully deploys in space

04 Sept 2024
India TV

Jeff Bezos' Project Kuiper satellite internet to get UK approval, competition with Elon Musk's Starlink intensifies

08 Sept 2024
Hindustan Times

SpaceX launches Polaris Dawn astronauts to attempt world's first privately-funded spacewalk mission

10 Sept 2024
The Economic Times

FCC Chair Jessica Rosenworcel calls for more competition to SpaceX's Starlink

12 Sept 2024
Communications Today

SpaceX's Polaris Dawn mission achieves historic milestone with longest distance from Earth since Apollo 11

11 Sept 2024
The Times of India

Voyager-1 clings to life as engineer keeps ageing probe pointed to Earth

11 Sept 2024
India Today

NASA astronaut Sunita Williams' record-breaking extended space stay: 8 days turn into 8 months

11 Sept 2024
Business Today

Billionaire aboard SpaceX Dragon carries out first commercial spacewalk

13 Sept 2024
The Times of India

EXPAND App ensures seamless pre-flight, in-flight, post-flight health research data collection of astronauts onboard SpaceX's Polaris Dawn

17 Sept 2024
The Indian Express

Elon Musk's Starlink satellites are 'messing' with cosmic views and disrupting Earth's orbit: 'It's getting worse'

20 Sept 2024
Hindustan Times

How Starlink satellites are 'blinding' astronomers

22 Sept 2024
The Indian Express

Sunita Williams, stuck in space for months, takes command of the ISS once again as NASA prepares a rescue mission

23 Sept 2024
Moneycontrol

Why NASA SpaceX Crew-9 launch to bring back Sunita Williams has been postponed

26 Sept 2024
The Times of India

SpaceX Crew-9, Sunita Williams' new ride home, arrives at space station

30 Sept 2024
India Today

INTERNATIONAL NEWS

CHINA

China's Geespace launches 10 low-orbit satellites, eyeing Starlin

06 Sept 2024
Deccan Herald

With China in mind, India and US to work together on space domain awareness

10 Sept 2024
The Economic Times

Asia's largest high-altitude test platform for space engines passes testing phase

11 Sept 2024
Global Times

China achieves key milestone in satellite-ground laser communication

15 Sept 2024
China Daily

War game reveals Chinese attacks on communications could paralyze Taiwan

16 Sept 2024
Space News

China launches two BeiDou navigation satellites

19 Sept 2024
English.news.cn

Xi calls for accelerating progress in China's space endeavors

23 Sept 2024
English.gov.cn

Video: China launches 8 satellites into space from a ship

24 Sept 2024
India Today

China launches first reusable, returnable test satellite

27 Sept 2024
English.news.cn

OTHER NATIONS

Digicel Pacific network uses SES satcoms for disaster recovery

03 Sept 2024
Developing Telecoms

Europe's last Vega rocket launches Sentinel-2C satellite for environmental monitoring

05 Sept 2024
CNBC TV18

Australia's Space Machines Co ties up with two Indian firms for Space MAITRI mission

19 Sept 2024
The Times of India

Italy to build on Space Expo presence in Bengaluru for new partnerships with India

19 Sept 2024
Deccan Herald

Vietnam says SpaceX's Starlink plans \$15 billion investment

26 Sept 2024
Hindustan Times

Swedish space delegation bets on industry meet to propel ties with India

27 Sept 2024
Deccan Herald

Australian Space Agency head visits Chennai to explore opportunities for collaboration in space industry ecosystem in T.N.

26 Sept 2024
The Hindu

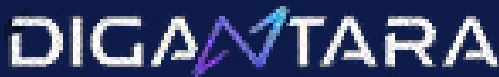
Japan launches H2A rocket carrying information-gathering satellite

26 Sept 2024
Greater Kashmir

ESA's DRACO Mission: Pioneering satellite reentry study to curb space debris

29 Sept 2024
India TV

JOB OPENINGS



GOVERNMENT POLICIES/ CONSULTATIONS/ RECOMMENDATIONS/ ANNOUNCEMENTS

- **Consultation Paper on Reserve Prices for auction of FM Radio channels**
 - <https://www.trai.gov.in/release-publication/consultation>
- **Consultation Paper on Audit related provisions of Interconnection Regulations, 2017 and Digital Addressable Systems Audit Manual**
 - <https://www.trai.gov.in/release-publication/consultation>
- **Draft The Telecommunication Tariff (Seventieth Amendment) Order, 2024**
 - <https://www.trai.gov.in/release-publication/consultation>
- **Consultation Paper on Review of the Telecom Commercial Communications Customer Preference Regulations, 2018**
 - <https://www.trai.gov.in/release-publication/consultation>
- **TRAI's Response to the back reference dated 02.11.2022 received from DoT on TRAI's Recommendations on Definition of Revenue Base (AGR) for the Reckoning of License Fee and Spectrum Usage Charges**
 - <https://www.trai.gov.in/release-publication/recommendation>
- **Recommendations on the Tera Hertz Spectrum**
 - <https://www.trai.gov.in/release-publication/recommendation>
- **IN-SPACe paper on Ground Station As A Service (GSaaS) in India**
 - [Click here..](#)