

The European Launch Market : A New Space Race

by **Virgil Labrador**

While the United States is launching rockets nearly every other day, and China maintains a steady rhythm of about one launch every five days, Europe—once a dominant force in commercial space—finds itself playing catch-up. The delayed debut of the Ariane 6 and the grounding of the Vega launcher following repeated failures have significantly eroded Europe's competitive position in orbital launch capability.

Yet beneath this narrative of decline, a quieter but promising transformation is underway. Across the continent, a growing number of private space startups are preparing to lift Europe back into contention. Despite a less mature venture capital ecosystem and a scarcity of risk-taking billionaires compared to the U.S., European space entrepreneurship is gaining momentum—from Spain and Germany to France and the United Kingdom.

From Legacy Systems to Startup Innovation

For decades, European access to space was defined by institutional heavyweights: the European Space Agency (ESA) and national champions such as ArianeGroup and Avio. However, these entities have struggled to match the pace and pricing of new

market entrants, particularly from the U.S. Ariane 6, heralded as Europe's flagship successor to Ariane 5, has faced repeated delays.

Meanwhile, the smaller Vega C launcher has only recently resumed service after a series of high-profile setbacks.

In response, new players are emerging. The strategic significance of space—spanning defense, telecommunications, climate monitoring, and

The next three years will determine whether Europe's startup scene can deliver—and whether the continent can truly reclaim its place among



European Space Agency Headquarters in Paris.

What's Inside

From the Editor 3

Satellite Communications as Cloud Chamber for the Future
by Bruce Elbert.....7

Company Spotlight:
STARWIN.....11

Shaping Global Satellite Licensing
by Matthew Evans.....13

Products and Services Profiles:
SATEXPO (CABSAT) and Satellite Asia 2025.....16

Opportunities for Teleport Operators in Shift to Managed Services
by Jason Bates.....20

Country Spotlight:
South Korea's Space Sector
by Blaine Curcio.....22

Mergers and Acquisitions.....26

Executive Moves.....27

Market Trends.....29

Vital Stats30

Advertisers' Index30

Continued on page 4

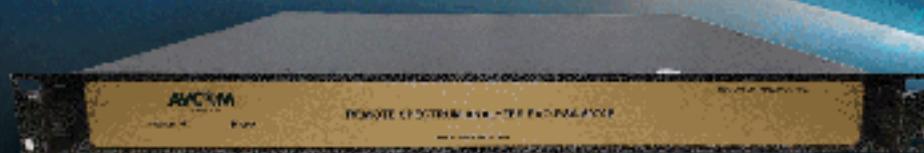
AVCOM

Of Virginia Inc.

Following the Signal



Spectrum Analyzers Beacon Receivers RF Monitoring



7729 Pocoshock Way
North Chesterfield, Virginia
23235 USA

Phone: +1 (407) 574-2450
Email: salesrfq@avcomofva.com
www.avcomofva.com

*Visit us
now!*



SatExpo/Satellite Asia



Two of the most familiar trade shows that are a must-attend in the satellite industry are the CABSAT show in Dubai and what was formerly called CommunicAsia in Singapore now called Asia Tech or ATxSG (for Asia Tech Singapore). This year both shows have dedicated exhibition and conference for the satellite industry. CABSAT has SATEXpo and ATxSG has Satellite Asia. I know it's only a change in branding, but some can help but refer

to these shows by their old names which existed for decades.

Satellite Markets and Research are proud media partners of both SATEXpo and Satellite Asia which are both held in May this year. You can view some of the interviews we did with key satellite executives at both shows at:

satellitemarkets.com/marketcasts



Pictured here is a screen grab of the interview I did with Amelia Liu, Co-Founder and COO of equipment manufacturer STARWIN. We featured in this issue a profile of STARWIN's latest product offering on page 11.

Enjoy the issue.

Virgil Labrador

Application Technology Strategy, L.L.C.

SATELLITE COMMUNICATIONS CONSULTING

- System Architecture & Engineering
- Business Development
- Satellite Network Design
- Communications Payload and Ground Segment Design
- Due Diligence and M&A Support

Bruce Elbert, President
Application Technology Strategy LLC
123 Dan Moody Trail
Georgetown, TX 78633 USA
+1-310-918-1728
bruce@applicationstrategy.com
www.applicationstrategy.com



EDITORIAL

Virgil Labrador

Editor-in-Chief

virgil@satellitemarkets.com

Peter I. Galace

Elisabeth Tweedie

Associate Editors

Contributing Editors:

North America:

Robert Bell,

Bruce Elbert,

Lou Zacharilla

Latin America:

Bernardo Schneiderman

Europe:

Omkar Nikam (Strassbourg)

Hub Urlings (Amsterdam)

Roxana Dunnette (Geneva)

Asia-Pacific:

Blaine Curcio (Hong Kong),

Naoakira Kamiya (Tokyo),

Riaz Lamak (India)

ADVERTISING

For Advertising enquiries

send an e-mail to:

info@satellitemarkets.com

Satellite Executive Briefing is published monthly by Synthesis Publications LLC and is available for free at www.satellitemarkets.com

SYNTHESIS PUBLICATIONS LLC

1418 South Azusa Ave.

Suite # 4174

West Covina CA 91791 USA

Phone: +1-626-931-6395

E-mail:

info@satellitemarkets.com

©2008-2025.

No part of this publication may be reprinted or reproduced without prior written consent from the Publisher.

European Launch Market... from page 1

the global spacefaring elite.

Sovereignty is now widely recognized by European governments. Germany, notably, has established a Ministry for Space, underscoring the continent's renewed focus on the sector's geopolitical and economic importance.

The Key Contenders: Europe's New Generation of Launchers

PLD Space (Spain)

In October 2023, PLD Space made history by launching MIURA 1, the first privately developed suborbital rocket in Europe. Its orbital-class successor, MIURA 5, is targeting a maiden flight in late 2025, though a slip into 2026 appears likely.

Isar Aerospace (Germany)

Germany's best-funded space startup, Isar Aerospace, raised over US\$ 400 million in private capital—more than any other European competitor. In March 2025, its Spectrum rocket attempted its first orbital launch from Norway's Andøya Spaceport, but the mission ended in failure shortly after liftoff. No new launch attempt has yet been announced.

HyImpulse (Germany)

A technological outlier, HyImpulse successfully launched its SR75 hybrid-propulsion rocket from Australia in May 2024. Its orbital rocket, SL1, is scheduled for a 2026 debut from the SaxaVord Spaceport in Scotland. The company's propulsion system—combining paraffin-based solid fuel with liquid oxygen—is a rare and innovative hybrid approach, promising much

"...The next three years will determine whether Europe's startup scene can deliver—and whether the continent can truly reclaim its place among the global spacefaring elite..."

lower production and operational cost, greater safety, and sustainability.

Rocket Factory Augsburg (Germany)

Backed by aerospace firm OHB, RFA is developing RFA One, a three-stage small satellite launcher. A significant test failure in 2024 delayed progress by at least a year. Although a first launch is tentatively planned for 2025, the company has yet to publish a firm timeline.

MaiaSpace (France)

Spun off from ArianeGroup in 2022, MaiaSpace aims to develop Maia, a partially reusable micro-launcher

with an initial payload capacity below 500 kg. The concept holds promise, but the first launch is unlikely before 2026 or 2027.

Latitude (France)

Formerly Venture Orbital Systems, Latitude is working on Zephyr, a micro-launcher with a 100 kg payload capacity entering the small payload class, which Rocket Lab is leaving by moving from its Electron to Neutron launcher. By targeting the smallsat deployment market, a first launch before 2026 seems unlikely given the absence of a confirmed launch campaign.



Established European launch companies such as the ArianeGroup, which was the world's first commercial launch service provider, have struggled to match the pace and pricing of new market entrants. Pictured here is the Ariane family of launchers.

(image courtesy of ArianeGroup).



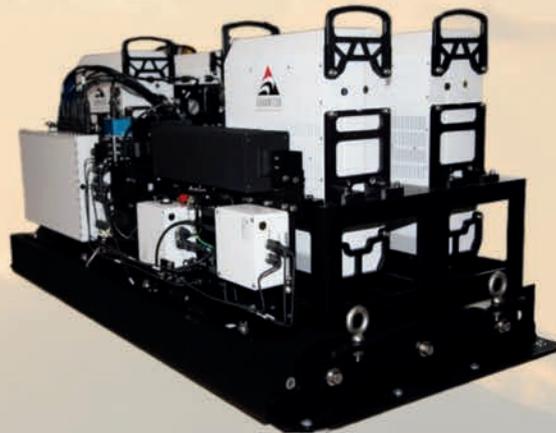
Scan to request
a quote

High power & High bandwidth

- From 50 watts to 16,000 watt transmit power
- L/S-, C-, Low X-, Std X- and Ku-bands
- Indoor and Outdoor Solutions
- Reliable Solid-State Technology
- Expert redundancy / combiner architecture
- State-of-the-art M&C

Smarter Solutions Global Reach

Advantechwireless.com



AdvantechWireless.com

Orbex (UK/Denmark)

Based in the UK and Denmark, Orbex plans to launch its Prime rocket—capable of delivering up to 180 kg to LEO—from Scotland's Sutherland Spaceport. The company has faced multiple delays, with a first launch now expected in 2025, although specific details remain unconfirmed.

Technology Outlook: Tradition vs. Innovation

Most of these emerging companies rely on time-tested technologies: liquid- and solid-fueled engines with propellants such as kerosene, propane, or methane. Isar's Spectrum, Orbex's Prime, and Latitude's Zephyr all reflect this conventional approach.

HyImpulse from Stuttgart however, offers a striking departure. Its hybrid engine design combines the simplicity and safety of solid propellants with the control and performance benefits of liquid oxidizers. This innovation could mark a significant leap forward in propulsion technology—especially in a continent where risk aversion has long shaped aerospace development.

Europe also benefits from a rich engineering heritage, particularly in Germany. From early pioneers like Hermann Oberth and Wernher von Braun to modern figures such as Hans Koenigsmann (formerly of SpaceX), the legacy of rocketry runs deep—providing both technical credibility and aspirational momentum.

ESA's European Launcher Challenge: Accelerating Autonomy

To support these efforts, ESA has

launched the European Launcher Challenge (ELC), a strategic initiative designed to catalyze the development of a cost-competitive successor to Ariane 6. Modeled on NASA's COTS and CLPS programs, the ELC aims to harness public-private partnerships and foster market-ready launch services capable of rivalling U.S. and Chinese offerings in both price and cadence.

Europe's Critical Second Chance

With Ariane 6 and Vega C now returning to operational status and the launch of IRIS²—Europe's planned secure communications satellite constellation—on the horizon, the institutional groundwork for space autonomy is finally in place. But institutional rockets alone will not be enough.

In a world increasingly shaped by geopolitical tension, climate risks, and



View a video interview with Hyimpulse Co-Founder and CEO Christian Schmierer: [www. https://satellitemarkets.com/people/christian-schmierer-founder-and-ceo-hyimpulse-technologies](https://satellitemarkets.com/people/christian-schmierer-founder-and-ceo-hyimpulse-technologies)

the rise of dual-use space technologies, commercial launchers are essential. Europe's future as a space power depends on the success of not just one, but multiple private ventures. Reliable, affordable, and independent access to space will be a cornerstone of the continent's resilience and influence in the 21st century.

The next three years will determine whether Europe's startup scene can deliver—and whether the continent can truly reclaim its place among the global spacefaring elite.



Virgil Labrador is the Editor-in-Chief of Los Angeles, California-based Satellite Markets and Research which publishes a web portal on the satellite industry www.satellitemarkets.com, the monthly Satellite Executive Briefing magazine and occasional industry reports called MarketBriefs. Virgil is one of the few trade journalists who has a proven track record working in the commercial satellite industry. He worked as a senior executive for a teleport in Singapore, the Asia Broadcast Center, then-owned by the US broadcasting company CBS. He has co-authored two books on the history of satellite communications and satellite technology. He holds a Master's in Communications Management from the University of Southern California (USC). He can be reached at virgil@satellitemarkets.com

Satellite Communications as Cloud Chamber for the Future

by Bruce Elbert

The Cloud Chamber is that school experiment where you observe the path of charged particles, like cosmic rays and electrons, through a supersaturated gas. This is a metaphor for tracking our industry situation; however, that trace only shows where the particle has been. The Cloud Chamber is like tracking in the open to see things that deviate from normal. Alternatively, what's there and what isn't?

Our new-normal in satellite communications is dominated by businesses that are flat or in decline although some new ventures show substantial gain. We know that the space environment has not changed since the 1950s and getting to space relies on the principles of rocketry and aerospace systems. Daily, we read about the current industry state in publications and industry reports, some of which is darn alarming. But where is this taking us?

Fiction writers tell us what the future might look like. HG Wells saw conflict with aliens in *War of the Worlds* or how civilization could nearly destroy itself with atomic weapons in the 1936 movie, *Things to Come*. Our future was presented in spectacular form in *2001: A Space Odyssey* (released in 1968) or *Star Wars – Episode IV* (the original Lucasfilm from 1977). They fantasize about technologies we don't understand (think time travel and teleportation). But *Star Trek* communicators are here, and phaser weapons are being developed.

Recall the poem by John Gillespie Magee that was spoken by Michael Collins on the Gemini 10 mission in

1966, "Oh! I have slipped the surly bonds of Earth . . . Put out my hand and touched the face of God." It must have inspired current and future astronauts, including a couple of rather wealthy individuals.

I think of the Cloud Chamber as either science fiction or a real-world way to interpret invisible phenomena.



The Blue Marble. Taken by the crew of Apollo 17 in 1972 at a distance of 29,000 km above the planet. (NASA/Apollo 17 crew).

Consider this question, "To what extent can spacecraft continue to be launched and operated using non-government funding?" NASA's US\$ 200 Billion Space Shuttle program began in 1972 intending to greatly reduce the cost of getting to space. Supporters said that this would permit any organization to conceive and conduct its own space program or business. Subsequent events proved otherwise, because the Challenger disaster of January 28, 1986, exposed the risk to the lives of astronauts. One report asked, "Is this risk justified to put TV satellites in orbit?" US policy after that restricted the Shuttle to NASA and other government-sponsored activities such as the Space Station.

From there, the commercial side of space, including a burgeoning satellite communications industry, resorted to expendable rockets. Thus, SpaceX was born in 2002 and achieved much of what the Space Shuttle promised. This is commercial space; they and others innovate to offer new services only available from space (emphasis added).

The growth in the current field is with LEO broadband constellations and Direct-to-Device prospects. The former is overwhelming earlier GEO-based broadband offerings – the newcomer has demonstrated technical superiority for

mainstream users. To continue to dominate, it must satisfy the following three: superior performance, time-to-market, and low cost. They must do this not based on potential but as the best alternative in the face of competition. DIRECTV achieved eminence in 10 years and performed well for nearly 30. Satellite radio to vehicles is effective on a smaller scale, and I am a devoted user. DIRECTV's ser-

vice continues to be excellent, even in the face of rain fade which they now overcome through near-seamless transfer to Internet streaming (which either could be terrestrial or satellite).

The two broadband LEO constellations serve many markets and a third is coming soon. These depend on users with multi-beam antennas to assure a continuous connection

to an available spacecraft. The idea behind these systems dates to 1998 when Bill Gates and others backed an early version called Teledesic. The proposed 288 satellite constellation was put out for bids and Motorola was selected. They had relevant experience with Iridium, the LEO narrowband constellation circa 1998 still serving handheld satphones and aircraft today. The timing was not right for Teledesic because the Internet had not yet reached critical mass. Also, the price tag put on it by Motorola exceeded the planned budget by a substantial factor. Thus, 2000 wasn't time for LEO broadband even with the support it had at the time.

Around 2020, the story appeared to be much different because of these factors: the Internet Protocol standard became supreme, broadband tiering points were available throughout the globe, launch and manufacturing costs were substantially lower due to volume and efficiency, and an appropriate user antenna at the right price point became available. I also note that financing such ventures requires very deep pockets and the will to go forward without a proven

ACORDE
Space & Defence
RF EXPERTS

Challenge the limits

- (1999) Foundation
- (2004) First international airborne program
- (2005) Ka-band first products
- (2010) PAZ satellite program
- (2018) SpainSat NG satellite program
- (2023) Qualifas aeronautical seal

ACORDE

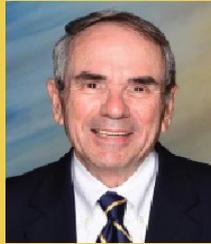
ACORDE.COM

business model.

Victor Hugo observed: “Nothing else in the world...not all the armies... is so powerful as an idea whose time has come.” This is a principle like the Cloud Chamber – conceive a formidable idea before it is seen by others. Taking this a step further, the picture of the “Big Blue Marble” (Apollo 17, December 7, 1972), gained support for many NASA projects and accomplishments. Today, we have the first all-woman crew aboard New Shepard. This could usher in an age of space travel for the non-professional. But,

is this style or is this reality? There are no futurists today who can address these questions, so we’re left to do this ourselves.

Are we on the verge of a new space age so we go where no one has gone before? Gey rekon (go figure).



Bruce Elbert is the Founder and President of **Application Technology Strategy LLC**. (www.applicationstrategy.com) He is a satellite industry expert, communications engineer, project leader and consultant with over 50 years experience in communications and space-based systems in the public and private sectors. Areas of expertise include space segment design and operation in all orbit domains, systems architecture and engineering, ground segment systems engineering, development and operation, overall system performance improvement, and organizational development.

He can be reached at: bruce@applicationstrategy.com

JONSA®



- Support Ku and Ka band as an option.
- Carbon-fiber reflector with fast and high-quality transmission.
- The Ku/Ka band antenna can correspond with branded electronic devices, such as Feedhorn and integrated LNB.





www.jonsa.com.tw
saccount@jonsa.com.tw

Link Jonsa VSAT Antenna Cover Your Life



AvL TECHNOLOGIES

03b **mPOWER**
Certified

2.4m XY

with 40W KA RevGO BUC and
Gilat Aquarius pro Modem

Authorized to operate on the
SES MEO/GEO Satellite Fleet



Email: Sales@AvLTech.com to schedule a meeting

STARWIN Technologies

One company that's making a big splash at the first Satellite Asia exhibition co-located with ATxSG 2025 in Singapore is STARWIN. The company is an innovative and dynamic enterprise co-founded by its Chief Operating Officer Amelia Liu. In ten years, since she founded the company in Chengdu, China, she and her team of experienced engineers built the company from scratch into one of the leading manufacturers of satellite terminals. The company is well-positioned as a One-Stop-Shop Satcom terminal and antenna provider with a wide range of products for land-, marine-and air-mobility as well as providing Hybrid Monitoring SAR Radar Solution ranging from Satcom, Navigation, Remote Sensing, and Measurement.

At the Satellite Asia, STARWIN announced a contract with the TianQi LEO Internet of Things (IoT) constellation. Starwin has also partnered with Extended Networks for IoT ESA terminal for broadband applications. Among the modules include:

400-GM10 Module

The 400-GM10 is a special communication module for the TianQi Satellite IoT system developed, which supports short message communication with the TianQi constellation in orbit, and integrates power amplifier (PA), low noise amplifier (LNA), and high-performance RF transceiver chip, which can fully realize the communication function of Apocalypse. The application is simple, supports TTL serial communication, and can expand ADC and SPI interface applications.

Key Features:

Supports ultra-long-distance transmission, low-cost solution;

The size is small, it is easy for users to integrate, and the power supply voltage range is +3.5-+4.5V which is suitable for general polymer lithium battery supply electrical system;

Ultra-low power consumption, supporting terminal ease of use: The module integrates low-power algorithms, combined with data storage management and adaptive channels, The strobe algorithm selects the opportunity for reliable data communication between the module and the



STARWIN Co-founder and CEO Amelia Liu showcasing their new LEO IoT solution at Satellite Asia in Singapore.

satellite, which greatly reduces the power consumption in the communication process;

Strong anti-interference ability and terminal miniaturization: Chirp spread spectrum technology has a large link margin and long transmission distance: Strong anti-interference, anti-multi path fading and Doppler frequency shift;

Strong scalability: It provides universal interfaces such as UART/SPI2C to meet various customization needs of the IoT industry, Terminal diversification is also available.

400-GM12 Module

400-GM12 is a special communication module for the TianQi Satellite IoT system developed, which supports

short message communication with the TianQi constellation in orbit, and integrates power amplifier (PA) and low noise amplifier (LNA), high-performance RF transceiver chip, and built-in GNSS positioning module, which can be positioned in addition to the complete realization of the TianQi communication function. The application is simple, supports TTL serial communication, and can expand ADC interface applications.

Key Features:

Support ultra-long-distance transmission, low-cost solution.

Small size, easy for user integration, power supply voltage range of 3.3-5.5V, suitable for DC power supply or various lithium battery supply electrical system.

Ultra-low power consumption, supporting, terminal ease of use: The module integrates low-power algorithms, combined with data storage management and adaptive channels, The strobe algorithm allows the module to communicate with the satellite reliably, which effectively reduces the power consumption in the communication process.

Strong anti-interference ability and terminal miniaturization: Chirp spread spectrum technology has a large link margin and long transmission distance, Strong anti-interference, anti-multi path fading and Doppler frequency shift,

Strong scalability. It provides a universal UART interface to meet various customization needs of the IoT industry and support the diversification of terminals.

400-GM20 Module

The 400-GM20 is a dedicated satellite IoT communication module designed for short-message communication with the in-orbit TianQi constellation. Operating at a frequency of 400MHz, the 400-GM20 module integrates a power amplifier (PA) and a low-noise amplifier (LNA), with a maximum RF transmit power of 3W and a receive sensitivity of up to -133dBm. The module adopts the Chirp spread spectrum technology, with a maximum instantaneous power consumption below 8W. When used with a standard fiberglass antenna, its communication range exceeds 1000km.

The 400-GM20 module incorporates a GNSS positioning unit and low-power algorithms, combined with

data storage management and adaptive channel gating technology, enabling reliable on-demand data transmission with satellites. This significantly reduces power consumption during operation. The module is particularly suitable for IoT applications in areas without terrestrial mobile network coverage.

Key Features:

Support ultra-long-distance transmission, low-cost solution;

Small size, easy for user integration, power supply voltage range of 3.3-5.5V, suitable for DC power supply or various lithium battery supply electrical system.

Ultra-low power consumption, supporting, terminal ease of use: The module integrates low power algorithms, combined with data storage management and adaptive channels The strobe algorithm allows the module to communicate with the satellite reliably, which effectively reduces the power consumption in the communication process.

Strong anti-interference ability and terminal miniaturization Chirp spread spectrum technology has a large link margin and long transmission distance, Strong anti-interference, anti-multi path fading and Doppler frequency shift.

Strong scalability: It provides a LVTTLE interface to meet various customization needs of the IoT industry and support the diversification of terminals.

For more information STARWIN and its innovative products go to: www.chinastarwin.com



View a video interview with STARWIN
Co-Founder and COO Amelia Liu at:
[www.https://satellitemarkets.com/people/interview-amelia-liu-co-founder-and-coo](https://satellitemarkets.com/people/interview-amelia-liu-co-founder-and-coo)

Shaping Global Satellite Licensing Through National Consultations

by Matthew Evans

The satellite sector is undergoing rapid transformation, driven by technological innovation, emerging services, and new spectrum demands. Yet, as the industry evolves, so too must the regulatory frameworks that govern it. Regulations are constantly shifting, licensing models are becoming more adaptive, and procedures increasingly open and interactive. In this environment, National Consultations have become essential forums for shaping regulation — and a strategic opportunity for operators to participate and stay ahead of the curve.

Why National Consultations Matter

National authorities ultimately determine how to grant market access and assign spectrum for satellite-based services within their territories. In the absence of a universal model for licensing, consultations have emerged as an important mechanism for aligning domestic regulation with both innovation and international best practices.

Also known as calls for input or public consultations, these National Consultations are typically posted on regulators' websites. They outline proposed changes to policies or licensing rules and invite feedback from interested parties. Whether reviewing entire satellite frameworks, or targeting specific areas like Direct-to-Device (D2D) services, consultations offer stakeholders a structured platform on which to engage with regulators.

Participation allows stakeholders not only to gain insight into impending changes, or new regulations that may impact their operational and commercial planning, but also to participate in the rule-making process and advocate for favourable conditions.

From Compliance to Engagement

Increasingly, success in global licensing depends not just on identifying and following existing rules, but on influencing their future development. As illustrated by the national examples below, the regulatory environment is changing — what applies today in one country can easily change in several months' time. This makes long-term regulatory engagement, agility and dedicated expertise, crucial components of any market access strategy.

"...Increasingly, success in global licensing depends not just on identifying and following existing rules, but on influencing their future development..."

Stakeholders must monitor developments closely and act accordingly, well before deployment. Effective engagement can pre-empt regulatory risks, strengthen relations with decision-makers, and improve competitive positioning — especially in key markets, where decisions can often set the tone for wider regional trends.

Global Examples: Consultations Driving Change

In the past year, multiple national consultations have demonstrated how regulations are evolving and how vital early engagement has become:

- Following extensive consultation during 2024, involving 30 stakeholders, in May of this year, the Telecom Regulatory Authority of India (TRAI) issued “Terms and Conditions for the Assignment of Spectrum for Certain Satellite-Based Commercial Communication Services”. This cemented new spectrum fees (based on Adjusted Gross Revenue) and assignment procedures for satellite services in the country, following months of counter-comments, deadline extensions and an “open house” discussion.
- The U.S. Federal Communications Commission’s (FCC’s) earlier framework for D2D in the mobile frequency bands led to similar initiatives in Canada, Australia, UK. In May, the UK Ofcom consulted on “Enabling satellite direct to device services in Mobile spectrum bands,” exploring models for authorising D2D in spectrum already licensed to Mobile Network Operators (MNOs). A final decision is expected by Q4 2025. Separately, Ofcom will also decide on opening the “Q/V-band” frequency ranges for satellite Gateways, after an upcoming consultation.
- In Africa, Tanzania, South Africa and Zambia undertook major consultations to reform their satellite licensing frameworks, show-casing the continent’s growing focus on satellite connectivity. In Kenya, the Communications Authority’s “Review Of The Telecommunications Market

XPERIENCE THE NDS FACTOR



INSTALLING
RELIABILITY

www.ndsatcom.com

MAKING MISSIONS POSSIBLE

- HIGHEST AVAILABILITY
- RESILIENT AND FIELD PROVEN
SATELLITE COMMUNICATION
- RELIABLE SATCOM SOLUTIONS FOR YOUR MISSION

ND SatCom GmbH
Graf-von-Soden-Straße
88090 Immenstaad
Germany



Structure” proposed a tenfold increase in satellite operator fees – potentially with major impact on foreign operators. In Côte d’Ivoire, the Autorité de Régulation des Télécommunications (ARTCI) launched a consultation on broader strategic objectives, including conditions for operators of non-geostationary satellite orbit (NGSO) networks in the country.

- In Saudi Arabia The Communications Space and Technology Commission (CST) received over 60 responses to its “Spectrum Outlook” consultation in 2024, with many highlighting the importance of satellite “non-terrestrial network” (NTN) services. In the UAE, the Telecommunications and Digital Government Regulatory Authority (TDRA), followed with its own spectrum roadmap in March 2025, incorporating satellite alongside advanced mobile technologies. In May, the Telecoms Regulatory Authority (TRA) of Oman consulted on spectrum pricing and rules for satellite services under “the Draft Regulation Organizing Radio Licenses”.

- Brazil, Thailand and the Cayman Islands also consulted on new regulations for satellite broadband, IoT and other areas. In June, the Brazilian Agência Nacional de Telecomunicações (Anatel) consulted to align its framework with WRC-23 decisions facilitating satellite broadband via Earth Stations in Motion (ESIM), among others.

- Australia is in the process of conducting a Five-Year Spectrum Outlook Review 2024-29. This review covers all frequency bands and also other aspects, such as pricing. Many comments have already been submitted but the Australian Communications and Media Authority (acma) “continues to encourage all parties to engage in our consultation processes to foster discussion of licensing and allocation of particular spectrum bands.”

Opportunities and Challenges

While consultations provide a pathway for regulatory engagement, they also present logistical hurdles. Responding to consultations across multiple jurisdictions and overlapping deadlines is resource-intensive, often to the disadvantage of newer and/or smaller operators.

The volume of technical, regulatory, and economic material often demands careful analysis and advocacy. Wider consultations that include information and communications technology (ICT), telecoms and spectrum planning, often obscure the satellite-specific issues, requiring expertise to identify relevant points of engagement. Yet, the potential

rewards are high: early engagement can help shape favourable policies, reduce future regulatory and financial burdens, and raise profile among local regulators and stakeholders.

Successful engagement depends on monitoring regulatory updates in every country that an operator provides or is intending to provide service. In many cases, time is of the essence. For example, in May, the US FCC issued a Further Notice of Proposed Rulemaking (FNPRM) on ways to use the 12.7 – 13.25 GHz band and the 42.0 - 42.25 GHz band. Comments are due by June 27th, just 30 days after publication of the FNPRM. This short timescale, while not unusual in the US and elsewhere, clearly indicates the need for both established and potential operators to keep abreast of issues that may impact their proposed or existing services. Given the importance and scale of this task, stakeholders without dedicated staff increasingly turn to specialist organisations in this field.

Looking Ahead

2025 is already another year of regulatory evolution for satellite services at national levels. From D2D services to broadband access, from IoT delivery to major spectrum allocations, the pace of change shows no sign of slowing. Regulators will continue seeking input from industry to deliver robust frameworks for the future, as the market grows and satellite becomes more intertwined with terrestrial platforms.

Against this landscape, aspiring innovators can no longer afford to be passive observers. Ascertaining the existing rules is no longer enough and often doesn’t provide an answer. Strategic engagement and forward-planning is becoming a cornerstone of effective global licensing and market access programmes. The ability to anticipate change and opportunities impacting technical and commercial objectives should be an essential part of any operator’s regulatory strategy.



Matthew Evans is Head of Global Licensing and Market Access at River Advisers, a leading consultancy in space, satellite, and telecom regulatory affairs.

Matthew has multiple years' regulatory experience dealing with next-generation NGSO and GSO satellite technologies, from 5G NTN, D2D and IoT, to broadband internet, navigation, and remote sensing. He can be reached at:

mevans@riveradvisers.com

In case you missed it, here are key products and services showcased at SATEXPO Middle East (colocated with CABSAT) Dubai, UAE, May 13-15, 2025 and Satellite Asia, Singapore, May 27-29, 2025

AvL Technologies



AvL Technologies, Inc. excels in multi-band and multi-orbit mobile and flyaway terminals. Delivering innovative, rugged solutions for both the commercial and defense sectors; providing superior performance and reliability backed by outstanding customer support. An industry leader in next generation satellite technology.

For more information go to: www.avltech.com

Es'hailSat Qatar Satellite Company

Es'hailSat, the Qatar Satellite Company, is a communications satellite operator headquartered in Doha, Qatar. Established in 2010, Es'hailSat delivers services to broadcasters, enterprises and governments in the MENA (Middle East and North Africa) region and beyond. With the goal to become a world class satellite operator and the foremost satellite services provider in the MENA region, Having both Ku-band and Ka-band payload on satellites co-located at 25.5°E / 26°E broadcast hotspot enables Es'hailSat to provide the region with the most advanced and sophisticated services including broadcast, telecommunications and broadband.



For more information go to: www.eshailsat.qa

JONSA Technologies



Jonsa Technologies specializes in cutting-edge satellite communication solutions in making high-quality parabolic dish with VSAT, Flyaway and Maritime antenna for over three decades with capability a in designing, inventing and producing with services of OEM and ODM. JONSA VSAT solutions offer high-speed internet access, secure data transmission, and seamless connectivity, regardless of geographic challenges. Key Benefits of Our VSAT Solutions include: **Reliable Connectivity:** Our technology ensures continuous connectivity, even in the most remote areas, minimizing downtime and maximizing productivity. **Scalability:** Whether you're a small enterprise or a large corporation, our VSAT solutions can be tailored to fit your specific needs and scale with your business growth. **Cost-Effective:** We provide competitive pricing models that help you optimize your operational costs while delivering top-tier service. **Expert Support:** Our dedicated support team is available around the clock to assist you with any technical issues or inquiries.

For more information, please visit www.jonsa.com.tw or email saccount@jonsa.com.tw

Integrasys



the innovation in the satellite industry for over 30 years. At INTEGRASYS, our mission is to provide the industry with the best quality and fastest technology available to save time, effort, and OPEX, with the service and care that our customers deserve.

Integrasys, founded in 1990 by former Hewlett Packard engineers, specializes in software solutions and manufacturing of Satellite Spectrum Monitoring Systems, VSAT Installation & Maintenance, and Link Budgets in the SAT-COM and broadcasting markets. With over 20 products, including Beam Budget, FlexCap, Controlsat, and Vectorsat, the company has been leading

For more information on Integrasys' products go to: <https://www.integrasys-space.com/products>

Intersputnik



operation and development of the Intersputnik international satellite telecommunications system. Intersputnik's unique status allows the organization doing business based on international cooperation. The organization has access to the bandwidth of most commercial satellite operators across the world and major satellite communications systems, including ABS, Azerspace, Belintersat, Eutelsat, Intelsat, SES, Turkmen Hemrasy, Express, and Yamal. Intersputnik provides the users located on all continents with the capacity of geostationary and non-geostationary satellites and the whole range of up-to-date satellite telecommunications and broadcasting services including the deployment of corporate and civil government satellite networks, cellular backhaul via satellite, broadband Internet access, communications on the move, as well as TV distribution networks in any geographic location.

Founded in 1971, **Intersputnik** is an international intergovernmental organization, which today unites 25 countries. The organization's mission is to contribute to the strengthening and development of economic, scientific, technical, cultural and other relations by communications, radio and television broadcasting via satellites and to ensure cooperation and coordination of the efforts of the members of the organization in the design, establishment, op-

For more information go to: <https://www.intersputnik.int>

Mission Microwave

Mission Microwave Technologies is at the forefront of the satellite communications industry in shipping high power X-, Ku-, and Ka-Band BUCs for critical applications in ground, maritime, aviation and aerospace applications for government and commercial industry sectors that require high efficiency, reliability and performance. Mission Microwave brings revolutionary design for RF (Radio Frequency) and microwave electronics, using the latest in GaN semiconductor technology. Mission Microwave's focus is to minimize the size, weight, and power (SWaP) for these critical applications while providing its customers with the best possible reliability.



Mission Microwave X-, Ku-, and Ka-band GaN BUCs

For more information, go to: www.missionmicrowave.com

ND SATCOM: The future is Now. The Future is SKYWAN 5G



INSTALLING
RELIABILITY

With over three decades of experience, ND SATCOM, headquartered in Germany, is the premier supplier and integrator of innovative satellite communication systems and solutions to support customers with critical operations around the world. Customers in more than 130 countries have chosen ND SATCOM as a trusted and reliable source of high-quality, secure turnkey and custom system-engineered communication solutions. The company's products and solutions are used in more than 200 transnational net-

works in government, military, telecommunications and broadcasting sectors. The flagship of ND SATCOM, the SKYWAN platform, enables international users to communicate securely, effectively and quickly over satellite.



RF-Design



For over 25 years, RF-Design has been developing, producing and distributing technologically leading solutions for the ground segment of satellite communication systems. We offer a wide range of high-quality systems for RF distribution, RF-over-fiber transmission, signal amplification and RF monitoring. Many years of experience, technical know-how, a high degree of flexibility and the ability to customize products to meet individual customer requirements make RF-Design a globally valued partner in this demanding industry. A special focus is placed on a customer-oriented service approach that combines technical excellence with personal advice.

Meet us at CABSAT 2025 in Dubai or at Satellite Asia in Singapore and get to know our latest products such as the highly flexible and secure "Fiberlinkplus CompactLine" system, our innovative space-saving handheld Extended L-Band and Broadband "Ecoline Fiberlink", the modular QLink Quad RF-over-Fiber system, the switch matrix system "FlexLink S9E", and the dual RF power meter "PwrM70G". We look forward to talking to you personally and discussing your individual requirements.



For more information, go to: www.rf-design-online.de

Spacebridge



Unleash reliable power with **Spacebridge's** SBB0200K – 200W Outdoor BUC/SSPA. Engineered for mission-critical performance, the SBB0200K is a compact yet powerful 200W GaN-based outdoor BUC/SSPA designed for App30B-15 Ku-band (12.75 - 13.25 GHz) or KX-band (13.75 - 14.5 GHz) bands. Built to thrive in extreme environments, its rugged IP67 housing eliminates waveguide losses by mounting directly on the antenna—no shelter or air conditioning required.

Perfect for multicarrier, multi-transponder applications such as DTH distribution, HTS VSAT hubs, and cellular backhaul, it delivers outstanding linearity and supports high-efficiency 256 APSK modulation even on 1.8m antennas. Packed with smart features like built-in redundancy (no controller needed), precision RMS power monitoring, overdrive/VSWR protection, REST API, and remote control via SNMP or web interface—this next-gen BUC/SSPA is engineered for uptime, scalability, and peace of mind. From disaster-resilient networks to high-throughput deployments, the SBB0200K delivers power, performance, and reliability—wherever you need it most.



For more information, go to: www.spacebridge.com

SatService GmbH

For over 25 years, **SatService GmbH** from Steisslingen/Germany has been operating as a system integrator, manufacturer and provider of hardware and software for satellite ground segment applications. We provide competitive and customer dedicated products as well as system solutions with high quality and quick reaction time. Our strength is the combination of system engineering and integration know-how merging with highly sophisticated products. Our sat-nms product line includes Monitoring & Control NMS/M&C systems, Antenna Control Units, Beacon Receivers, RF-over-Fiber solutions and various other equipment. We are proud to say that our products and systems are running at major satellite operators, teleports, broadcasters and other communication providers around the globe.



For more information, go to: www.satservice.gmbh.de

Terrasat Communications

Performance. Protection. Innovation. For Networks That Can't Afford Downtime.



Terrasat's Tx 1:2 Redundant Systems are built for the moments that matter—when uptime is mission-critical. With intelligent fault detection, rapid failover switching, and a robust design proven in the field, our system keeps uplinks stable and operational in even the

harshest environments.

Engineered for high-power C-, X-, Ku-, and Ka-band applications, the Tx1:2 is ideal for gateways, teleports, and high-availability terminals. Features include hot standby redundancy, and a web-based interface for full remote monitoring and control. The 1:2 configuration—two active IBUCs and one spare—delivers the same protection as two Tx 1:1 systems, with reduced hardware requirements and streamlined operation.

Terrasat's IBUCs are trusted for their long-term durability, transparent performance specs, and advanced monitoring features, helping you meet SLAs while minimizing on-site maintenance.



Explore the full system at: www.terrasatinc.com

WORK Microwave

Headquartered in Holzkirchen, Germany (near Munich), and comprised of four operating product lines — Satellite Communication, Navigation Simulators, Defence Electronics, and Sensors and Measurement — **WORK Microwave** leverages over 35 years of experience to anticipate market needs and apply an innovative and creative approach to the development of its technologies while maintaining the highest standards for quality, reliability, and performance. WORK Microwave's Satellite Communication product line develops and manufactures high-performance, advanced satellite communications RF- and optical ground segment hardware and software for earth observation, N GEO constellations, direct-to-home broadcast, IP networks, teleport management, government communications, and many more applications.



For more information, go to: www.work-microwave.com



Shift to Managed Network Services Offers Opportunity for Teleport Operators

by Jason Bates

Pressure on teleport operators' traditional business model continues to grow, driven by the rapid expansion of low-latency services delivered by low Earth Orbit (LEO) constellations. Led by Starlink, the LEO operators are cutting into the mobility and broadband markets that geostationary (GEO) operators have relied on amid the decline of their broadcast business. In turn, this has squeezed the teleports, which traditionally have provided uplink and downlink services for the GEO operators.

To counter this decline, teleports are rapidly evolving by moving into the managed network services business. They are bundling connectivity from satellites in different orbits along with terrestrial-based services – even working with competitors – to remake themselves.

“Customers are looking for more comprehensive solutions that cover every possible communication need and contingency. Customers want to create more seamless and simplified management of their infrastructure and reduce the need to contract with multiple vendors or manage multiple pieces of equipment.”

The teleport industry is still in the early stages of this journey, and the pace of change is not uniform

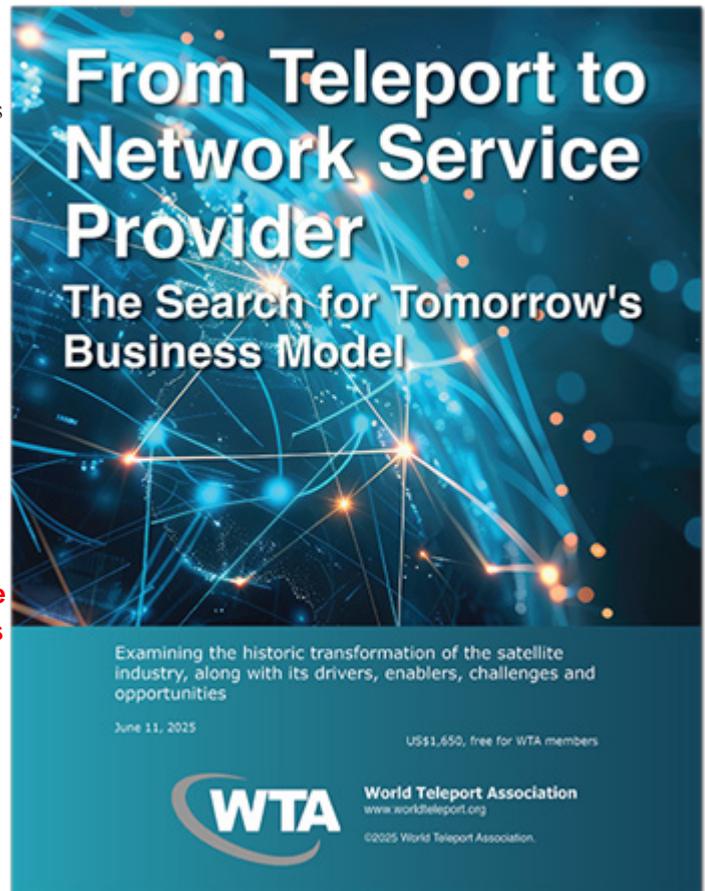
among operators, but the trend is clear, as laid out in the World Teleport Association report, *From Teleport to Network Service Provider - The Search for Tomorrow's Business Model*.

Navigating the New Business Model

This shift toward managed network services was underway before Starlink entered the market, but there is no questioning LEO's role as accelerant. And while some of Starlink's business is coming at the expense of incumbent operators, its low-latency, high-availability broadband service has also opened new markets for satellite services. Teleport operators are signing reseller agreements with LEO operators and increasingly bundling those services with GEO and terrestrial services to

offer flexible, resilient solutions to an ever-more-demanding customer set.

To deliver multipath connectivity requires some enabling technologies. This includes software-defined wide-area networking (SD-WAN) that can dynamically route traffic within a network, Application Programming Interfaces (APIs) that allow different applications to communicate and Operations Support System/Business Support System (OSS/BSS) software that manages



network infrastructure and customer facing activities including billing.

Delivering multi-orbit, multipath solutions also requires more focus on cybersecurity, and the cyber threat is growing as networks become more complex. "Given the sensitive nature of certain networks, whether in the energy sector or government and military applications, it is critical that there is a strong cybersecurity layer that prevents attacks and keeps the data flowing securely."

Multipath Growth

Along with competing more effectively in traditional teleport markets, having the ability to deliver managed services via multiple orbits could help operators reach new, more lucrative markets. Mobile network operators (MNOs) have long regarded satellite services as too expensive and unwieldy to be fully integrated into their networks, but several prominent MNOs are beginning to incorporate LEO-provided services into their operations. For the satellite industry, close integration with the MNOs raises the tantalizing prospect of access to the trillion-dollar global telecom market.

There are also additional opportunities becoming available in areas such as providing connectivity for Internet of Things services, serving the growing unpiloted aerial vehicles market and a potential opportunity that will be unique to LEO resellers – providing backup for terrestrial fiber.

Not all teleport operators feel the need to move into managed

"...Along with competing more effectively in traditional teleport markets, having the ability to deliver managed services via multiple orbits could help operators reach new, more lucrative markets..."

services. Some are becoming what is characterized as real estate plays. With the right location, access to cheap power, strong terrestrial connectivity and abundant floor space, these teleports can survive in a more traditional role of serving different satellite operators and managed service providers. Moreover, there remain customers that still want a simple connectivity solution without the complications associated with end-to-end managed services.

There is little question that the emergence of LEO constellations and the technologies to create multi-orbit, multipath solutions are giving teleport operators more flexibility to scale, pivot between markets and quickly spin up new partnerships that allow each company to focus on its strengths. Innovation on the fly will be critical in an industry whose landscape has changed more in the last couple of years than over the

previous 15 years. "We need to be very fast in changing what we do and how we do things."

Also, looming is Amazon Kuiper, whose LEO service will be similar to Starlink's while adding direct access to Amazon's vast network of data centers. More change, of course, means continued uncertainty, but it also is giving teleport operators new tools with which to adapt.

"We see the possibilities of truly seamless service across multiple networks hitting every element of life and business. While it might be hard to imagine the need for more connectivity in a world that is mostly connected, we feel we are just at the precipice of real growth and change in the way the world connects."



Jason Bates is editor for the **World Teleport Association** (www.worldteleport.org), which conducts research into the teleport and satellite industry, provides a unified voice for teleport operators and offers Teleport Certification programs to service providers. "From Teleport to Network Service Provider: The Search for Tomorrow's Business Model" is available for free to members and for sale to non-members from WTA's online store.

South Korea's Space Sector: Blending East and West

by **Blaine Curcio**

Having spent most of my adult life in Greater China, South Korea has always been on the periphery: a place that I know somewhat well (I have spent around 6 months in total living there and have a Korean partner), but have not had the chance to really dig into in a space industry context. Until June 2025, when I was invited to speak (on the topic of China, of course) at the International Space Summit (ISS), an event hosted by CONTEC.

Taking place in Daejeon, South Korea's Space City, the conference was a blend of East and West in more ways than one, and offered a fascinating peek into an up-and-coming space ecosystem that includes by some estimates 150ish companies. Let's dig in.

Resembling China in Industrial Development and Support

The South Korean space ecosystem is foremost a blend of East and West. The more "Eastern" characteristics, which I will broadly define as "closely resembling the way that China's space sector has developed", were immediately apparent. The conference took place in Daejeon, South Korea's science &

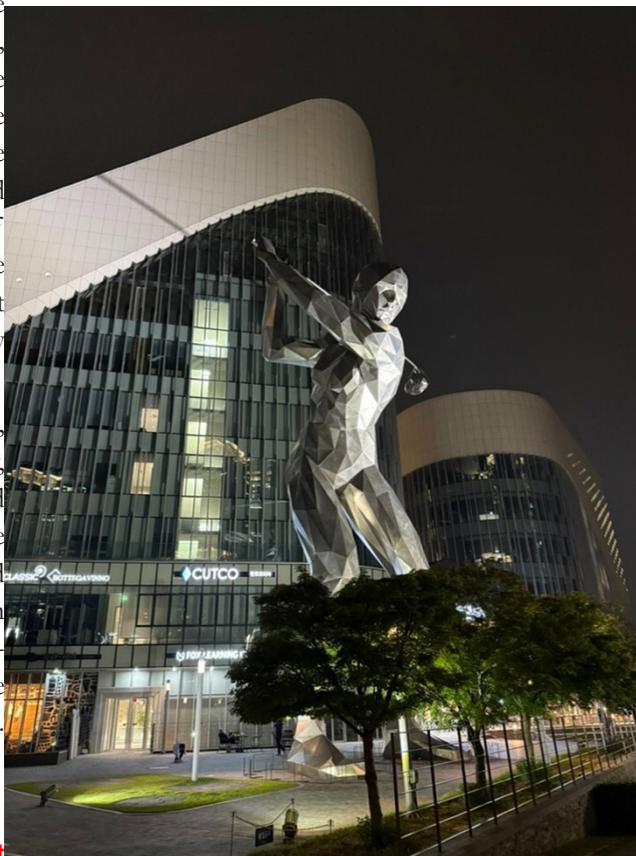
technology hub and a city that has experienced very fast growth due to government diktat since the late 1960s.

Like many cities in China, Daejeon has been singled out as a center

(KARI), and the Korea Astronomy and Space Science Institute (KASI). In South Korea's "three-part space industry framework", Daejeon is a central hub for R&D and talent cultivation, with Goheung as a launch vehicle cluster and Gyeongnam for satellites.

And like many cities in China, Daejeon apparently wants to attract space industry talent. I heard different figures from different folks during the few days, but they converged on South Korea having ~130-150 space companies, of which roughly half are based in Daejeon (including CONTEC). And no wonder: another one-liner circling the conference halls was that Daejeon had provided the Expo space to CONTEC for free. And one of the keynote speakers at the ISS was the Mayor of Daejeon, Jang Woo Lee. Unsurprisingly, next year's ISS has already been scheduled for roughly the same time at the exact same place.

Parts of the conference had a similar feel to many commercial space conferences I've attended in China, such as the fact that keynotes were given by local politicians, who were then given a "VIP Booth Tour" around the expo hall. There is, to some extent, an element of political theatre to all of this: CONTEC is able to show these politicians the efforts that they have made to create a truly



The Giant Polygonal Golfer Across the Street from the Daejeon Expo Center.

for R&D, being home to likely South Korea's best technical university (the Korea Advanced Institute of Science & Technology, or KAIST), the Agency for Defense Development (ADD), the Korea Aerospace Research Institute

international conference in their city. I speculate, but would venture to say that the Mayor of Washington DC is not aware of SATELLITE happening at the Walter E Washington Convention Center most years. With all of that said, the ISS 2025 had several characteristics that were more similar to SATELLITE, or other western conferences.

Echoes of the West: Real Exchanges and Relative Transparency

Alongside its Eastern tendencies of central government policy strongly influencing space industry development, clustering, and strong support from city-level government, ISS also showcased the western tendencies of South Korea's commercial space sector.

First, the conference was extremely international, and not just on the surface. Often when going to space conferences in China, there are lots of international attendees who are there for no reason other than that their airplane tickets were paid for by the hosts, and they're keen to give some arcane highly technical talk in front of a room of people who are interested in their arcane technical talk. For the rest of the conference, these attendees are milling around admiring the scenery and, I suspect, wondering what else they're meant to be doing in some random expo hall in Hefei full of Chinese companies doing business with other Chinese companies. This is just the nature of the beast: China is chasing space industry self-sufficiency, and unless you have some super novel technology that you're willing to sell them (with the expectation that said technology will be developed domestically in the near future), you're just foreign decoration.



In the case of the ISS, it was clear that there is real business happening between South Korea and the rest of the world. South Korea's leading commercial launch company, Inno-space, has been for years working with the Brazilians to launch their rockets from Brazil, and their team in South Korea is full of foreign faces. An MoU was signed during the event between CONTEC and Warpspace, indicating further collaboration between two fast-rising East Asian commercial space sectors. And, the list of sponsors was around half foreign, including ViaSat as the only Diamond Sponsor (possibly due to their solid business with Korean Air), along with Gold Sponsors LeoLabs, KSAT, GomSpace, Simera Sense, Exolaunch, Exotrail, and UKRI Science & Technology Facilities Council. None of this equated

to foreign and Korean companies exchanging cartoonishly large piles of cash, but it serves as evidence that unlike the larger and more insular Chinese space sector, which aims for complete self-sufficiency, Korea is open for business. A dinner during the event solidified this impression, with people from all over the world getting together for Korean BBQ, soju, and a lot of business chat in several different languages.

In addition to real international business, ISS 2025 exemplified the relatively transparent nature of Korea's space defense sector. Walking through the expo hall, I was surprised to see the above-mentioned Agency for Defense Development having a large and very public booth. ADD is to some extent a South Korean version of the USA's DARPA, a Skunk Works for South Ko-

rean defense-related technology R&D. In countries such as China, it would be unimaginable for such an entity to be so openly on display. ADD also gave a short speech during one of the conference days, and had a few prominent videos about their space defense activities. A Space Defense Panel on the conference's second day featured a Lieutenant Colonel from the Republic of Korea Air Force, as well as several other very defense-focused speakers, and included some seemingly unscripted remarks during an open discussion. This would be unimaginable in an internationally-focused conference in China, where the defense space sector is largely cut off from international participation.

Korea's Place in the World: Global Partner and the K-Wave

ISS 2025 showcased two more trends that are harder to quantify, but which may be highly important moving forward: most countries have a pretty favorable view of South Korea, and cultural exports are a big thing in South Korea.

The ISS showcased the unique relationships between South Korea and two countries in particular: France and Kazakhstan. As a legacy of the former Soviet Union, Kazakhstan (and other Central Asian countries) are home to a surprisingly large Korean diaspora, so large that they have their own name (Koryo-saram). Kazakhstan being the most active Central Asian country in the space domain, and home to more than 100,000 Koryo-saram, has an apparently deep relationship with South Korea in space. Kazakhstan was the only country to have its own pavilion in the expo hall, and the Ambassador

of Kazakhstan gave the opening remarks for the conference. Several Kazakh companies spoke on panels, where the general value proposition was "Kazakhstan punches above our weight in space, we have lots of land area, and we welcome foreign companies to trade their technology and expertise for access to some of our land area and space infrastructure".

France was the most visible foreign country at the conference, however, highlighting a long and fruitful relationship between the two Republics. This is a trend I've noticed for some time: a disproportionate number of senior Korean space industry executives went to France for advanced degrees in the 1980s, 1990s, and 2000s. I asked a couple of French friends during the conference why that might be, and they speculated that in the early days of Korea building out its aerospace sector, French export controls surrounding advanced technology were relatively more permissive than the US. French representation at the ISS included Cailabs, Safran, Exotrail, ANYWAVES, Sodern, Look Up Space, and my good friends at Novaspaces (formerly Euroconsult), in addition to at least two local distributors of a variety of French aerospace and microwave products.

In an increasingly multipolar world, we should expect growing collaboration between middle space powers. With a population of some ~52M people, it is unrealistic to think

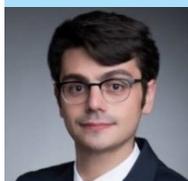
that South Korea can develop every space-related technology domestically, and despite a somewhat larger population of ~67M, the same can be said about France. Trade and cooperation between these countries is a natural path forward.

Finally, ISS 2025 was a showcase of Korean soft power and contemporary culture writ large. Nowhere was this more evident than the CONTEC Shop, which showcased the company's efforts to popularize space with the masses as the place "where space meets everyday life".

Staffed by friendly and outgoing students, the shop seemed to be doing a brisk business throughout the show, as attendees bought space swag at reasonable prices for loved ones back home, and according to the official website, profits from CONTEC Shop are donated to social responsibility efforts.

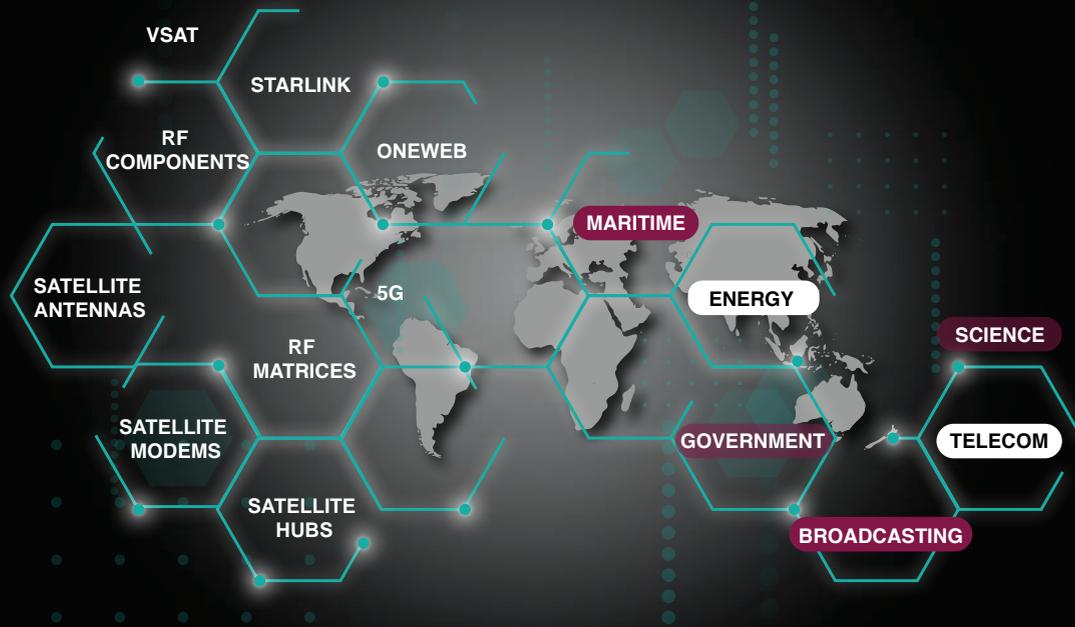
The South Korean Space Sector Moving Forward

South Korea is an export powerhouse with strong S&T chops, and has punched above its weight in industries ranging from semiconductors to electric cars for some time. We should expect similar outcomes from space, bolstered by government support, international ties, and a unique combination of technical excellence and soft power marketing savvy. In short, a very intriguing blend of East and West.



Blaine Curcio is the Founder of Orbital Gateway Consulting. He's an expert on the global commercial space and satellite industries He can be reached at: blaine@orbitalgatewayconsulting.com

YOUR TRUSTED LINK FOR GLOBAL COMMUNICATIONS AND SATELLITE SYSTEMS



DISTRIBUTION OF SATELLITE EQUIPMENT AND CONNECTIVITY



1515 Palisades Dr, Ste# K, Los Angeles, CA, USA
www.orbitalconnect.com

MBS Acquires SES' Media Services in Germany and the UK

Media Broadcast Satellite GmbH (MBS), a service integrator and managed gateway operator, has announced an agreement with satellite operator SES to acquire a part of its media services in Germany and the UK.

To be rebranded as 'full season', the new business will offer content management, playout, IP, VoD Delivery and OTT distribution services, expanding the MBS value chain to further establish it as a key player in the European media services sector.

Financial terms of the deal were not disclosed.

full season will operate as an independent company with 60 employees based in Unterföhring, Germany. Positioned as a complete media services specialist, it will serve to help broadcasters and brands manage and distribute their content, and monetize their content more effectively, according to the company.

"We have an excellent team in Unterföhring with a dedicated focus on service delivery and a great understanding of the evolving needs of today's customers," commented Christian Fleischhauer, Managing Director of MBS. "We aim to become the key player and a true service partner for playout, VoD and content management in the European market in the next years."

"The acquisition of SES's selected media services in Germany and the UK is an important milestone in the history of the MBS Group," added Qi Zhang-Holste, Managing Director of MBS. "It positions us to further in-



crease the reliability and geographical redundancy of our service offerings, with both existing and acquired services benefitting. Our customers are asking for complete service and support and expect the highest reliability, and the acquisition enables us to deliver on these requirements," she added.

MBS provides data and voice communications via satellite and data networks. Its solutions include legacy satellite services and customized new space applications.

Rocket Lab Enters Payload Market with Agreement to Acquire Geost

Rocket Lab Corporation (Nasdaq: RKLB) today announced the signing of a definitive agreement to acquire the parent holding company of Geost, LLC, a Tucson, Arizona-based electro-optical and infrared (EO/IR) payload development and manufacturing company and provider to high-priority national security satellites, from Lightridge Solutions, a portfolio company of ATL Partners, for US\$ 275 million in a mix of US\$ 125 million of cash and US\$ 150 million in privately placed shares of Rocket Lab common stock, plus up to US\$ 50 million in potential additional cash earnout payments tied to revenue targets.

The acquisition marks Rocket

Lab's formal entry into the satellite payload segment. The acquisition is expected to close in the second half of 2025.

With more than 20 years of flight heritage across classified and unclassified missions, Geost delivers advanced EO/IR sensor systems for missile warning and tracking, tactical intelligence, surveillance, and reconnaissance, Earth observation, and space domain awareness—core capabilities for achieving the U.S. Department of Defense's goals for resilient, proliferated space architectures, like the proposed Golden Dome architecture and the Space Development Agency's Tracking Layer.

By bringing these mission critical payloads in-house, Rocket Lab enhances its ability to rapidly deliver integrated spacecraft systems purpose-built for U.S. national security, while reducing integration risk, reducing costs, and accelerating timelines. Geost's full suite of sensing solutions enables warfighters and mission operators to protect, defend, and execute with speed and precision in increasingly contested space environments.

The acquisition adds Optical Systems as a new category within Rocket Lab's deep portfolio of capabilities, cementing the company's role as a disruptor in national security space.



Globecast UK's Juliet Bayliss Joins WTA Board of Directors

New York City, NY, June 26, 2025 –The World Teleport Association (WTA) announced the appointment of a new member to its Board of Directors, **Juliet Bayliss** of **Globecast UK**. Juliet serves as Sales Director at Globecast UK, based in their London office, where she has built a 25-year career in the broadcasting and satellite services sector. With extensive expertise in media distribution, satellite transmission, and emerging technologies, she leads a high-performing sales team managing strategic relationships with major UK and international broadcasters.



Juliet Bayliss

Her leadership has helped shape Globecast's commercial strategy, with a strong client-focused approach, and ability to drive results in a rapidly evolving media landscape.

"Juliet Bayliss brings deep industry expertise and a strong record of leadership to the WTA Board," said Randall Barney, Executive Director of the World Teleport Association. "Her

insights into media distribution and satellite services will be a valuable asset as we support our members through rapid industry change."

Directors on the WTA Board serve three-year terms and are elected by the membership. Continuing to serve on WTA's Board of Directors are:

- **Guido Neumann**, Chief Development Officer, AXESS Networks (Chair)
- **Alessandro Caranci**, Senior Vice President, Satellite Communications, Telespazio
- **Pablo Hoyos**, Director of Customer Operations, Hispasat
- **Shlomi Izkovitz**, Co-Founder, iKO Media Group
- **Jay LaPrise**, Senior Vice President, Global Transmission Operations, Encompass Digital Media
- **Adam Levy**, Senior Vice President, Enterprise Operations and Chief Information Officer, Intelsat
- **Lim Kian Soon**, Vice President of Satellite Business, Singtel
- **Jesús Méndez Sampedro**, 3rd Party Teleport Manager, Eutelsat Group
- **Will Mudge**, Senior Vice President, Technology and Operations, Speedcast
- **Matthew Prange**, Senior Vice President, Infrastructure Engineering & Operations, SES
- **George Rabatin**, Senior Manager, Project Kuiper

Ground Infrastructure, Amazon Kuiper

- **Susan Saadat**, Senior Vice President, Americas, ETL Systems
- **Kenny Skillen**, Head of Engineering, Broadcast and Satellite, Arqiva
- **Rob Weitendorf**, Vice President of Business Development, Kymeta
- **Gannis Yuen**, Senior Vice President, Engineering and Operations, ABS - Agility Beyond Space

The World Teleport Association (www.worldteleport.org) has been helping its members aim higher since our founding in 1985.

WISeKey Appoints Rolf Gobet to its Strategic Advisory Committee

Geneva, Switzerland, June 16, 2025 – **WISeKey International Holding Ltd**, a cybersecurity, blockchain, and IoT company, announced the appointment of **Rolf Gobet** to its Strategic Advisory Committee.

Gobet brings over three decades of experience in managing complex public-private projects, as he has held several leadership roles across Europe. As part of HP's EMEA e-government group, which focuses on providing technological solutions and services to public sector organizations in the Europe, Middle East, and Africa region, Mr. Gobet led the implementation of the world's first internet voting solution, an achievement made possible through a close collaboration with



Rolf Gobet

whereby. This initiative set a global benchmark for digital trust and innovation in democratic processes.

Gobet also played a key role in the development of TOSA, the world's first fully electric bus system that charges on the go without using overhead contact lines. This groundbreaking project was delivered through a public-private partnership involving major players, including multinational ABB, a global technology leader in electrification and automation, acquired by Hitachi in 2022. His ability to bring together stakeholders from government, industry, and academia has made him a recognized leader in technology-led transformation.

In French-speaking Switzerland, Gobet helped establish clusters of excellence, including the GAIN cluster, which unites aerospace companies in a collaborative innovation ecosystem. For more than 10 years, he directed the Office for the Promotion of Industries and Technologies (OPI), where he supported the economic development of companies ranging from startups to global enterprises. Mr. Gobet holds a master's degree from the University of Lausanne.

"We are honored to welcome Rolf to our Strategic Advisory Committee,"

said Carlos Moreira, Founder and CEO of WISeKey. "His pioneering achievements, deep public-private experience, and unique vision for sustainable and inclusive innovation make him a valuable asset to WISeKey's global mission."

SES Appoints New CFO

Betzdorf, Luxembourg, June 6, 2025 – SES announced that its Board of Directors has appointed **Elisabeth (Lisa) Pataki** as Chief Financial Officer (CFO), effective 16 June 2025. Lisa is a progressive finance executive with over 20 years of experience at various publicly listed multi-national aerospace and defence companies with strong background in company transformation and investment strategies. She will succeed Sandeep Jalan who has been SES's CFO since May 2020.

"I would like to thank Sandeep for his steadfast leadership over the last five years where he has driven continuous execution improvement and transformation while strengthening the company's balance sheet with a competitive cost of capital and delivering healthy cash returns to shareholders," said Adel Al-Saleh, CEO of SES. "We are pleased to welcome Lisa as our new CFO. Lisa has extensive experience in the aerospace and defence ecosystem and has completed several successful M&A finance integrations. Moreover, her ability to develop financial strategies that prioritise operational focus, efficiency, and profitable investments will strengthen SES's Leadership Team, helping SES achieve our mission of being a leading



Elisabeth Pataki

satellite player," he ad

"I would like to thank everyone at SES for their outstanding teamwork," said Sandeep, CFO of SES. "I am proud of the strides we have made during the past years, and I will continue to cheer SES's progress in the industry."

Incoming CFO Lisa Pataki said, "I look forward to stepping into this new position and working with everyone at SES to jointly deliver an exciting future for the years to come."

Lisa joins SES from Aerojet Rocketdyne, an L3Harris Company, where she helped expand profitability through streamlining operations and prioritising capital investments for long-term growth. As Group CFO for the Comet Group from 2020-2023, she drove EBITDA margin expansion of over 5 percentage points. In her 10-year progressive career (2005-2015) across RTX Corporation (formerly Raytheon Technologies Corporation), she held multiple finance roles and led the financial integration of Applied Signal Technologies, one of Raytheon's largest acquisitions in 2011. 🌍

The Starlink Effect: NGSO Services to Dominate Maritime Satellite Communications Market

Paris, France, June 17, 2025 – Space consulting and market intelligence firm, has released the 13th edition of its Prospects for Maritime Satellite Communications report, assessing the key trends and developments impacting this rapidly growing market.

As the number of vessels using satcom services grows to 125,000 by 2034, reliance on GEO capacity will decrease. Vessels are moving their primary bandwidth from GEO to NGSO connectivity. This switch to NGSO bandwidth will fuel a 7-fold growth from 286 Gbps in 2024 to 2 Tbps through the decade, transforming the market.

“This major shift was already visible in 2024 as Starlink made its mark on the market,” says Vishal Patil, project manager at Novaspace. “Starlink disrupted the maritime satcom market via its official service launch, influencing the direction of the market in almost every way. They can certainly expect to continue enjoying their first-mover advantage, at least in the short-term”.

Consequently, the NGSO capacity market share is set to grow from 85% in 2024 to approx. 98% by 2034. The market share of NGSO-based service revenues will also increase, reaching 93% by decade’s end. Starlink’s market strategies are redefining the competitive landscape, challenging established

GEO player positioning, however, GEO use will not disappear. Novaspace notes large vessel operators are hesitant to rely solely on NGSOs for their connectivity needs. These players are choosing to use existing GEO solutions in partnership with NGSO connectivity options, shifting established market dynamics and opening new opportunities.

Looking ahead, as addressable market growth accelerates, service revenues will reach US\$ 3.3 billion by 2034, supported further by increases in some service ARPUs. Over the last year, vessel operators streamlined previous budget increases by negotiating situation-specific service contracts. However, Novaspace expects the situation to stabilize as the cost of ownership of the satcom solution decreases and new market “norms” solidify. With opportunity in the maritime satcom market skyrocketing, players must realign strategic focus to meet demand and secure their competitiveness.

Novaspace’s Prospects for Maritime Satellite Communications provides a comprehensive analysis of the developments driving the maritime satellite communication market. The report evaluates essential trends across five main segments: Merchant shipping, Passenger ships, Leisure vessels, Fishing vessels, and Offshore Oil and Gas Market. It details assessments of key metrics including existing service

providers’ market shares, new entrants, equipment, regulations, and value-added services.

The Classic edition details an essential strategic outlook containing global trends and forecasts by region and technology with focus on satellite technologies, the impact of NGSO constellations as well as smart ships and autonomous vessel concepts. The Premium edition offers an additional market database with maritime satcom service agreements, maritime service plans pricing, listing of Starlink’s resellers as well as analysis of satcom capacity supply over the oceanic regions.

Novaspace is one of the leading space consulting and market intelligence, formed through the merger of Euroconsult and SpaceTec Partners. This strategic move combines the distinctive strengths of both entities to significantly amplify our international presence and service capabilities. With over 40-year legacy of expertise in guiding public and private entities in strategic decision-making, Novaspace offers end-to-end consulting services, from project strategy definition to implementation, providing data-led perspectives on critical issues. Novaspace presents an expanded portfolio of services, featuring combined expertise in management and technology consulting, top-tier executive summits, and market intelligence. 

ADVERTISERS' INDEX

Application Technology Strategy LLC.....3 www.applicationstrategy.com
Acorde Technologies.....8 www.acorde.com
AVCOM of Virginia.....2 www.avcomofva.com
Advantech Wireless.....5 www.advantechwireless.com
AvL Technologies.....10 www.avltech.com
Es'hailSat.....31 www.eshailsat.qa
Jonsa Technologies.....9 www.jonsa.com.tw
ND Satcom.....14 www.ndsatcom.com
Orbital Connect.....25 www.orbitalconnect.com

WORK Microwave.....32 (back cover)
www.work-microwave.com



Read the latest news, analysis, market trends, executive moves and many more at:
www.satellitemarkets.com

VITAL STATS



Fig XX: Global Satellite Simulators Market Size & Forecast



SECURE AND RELIABLE CONNECTIVITY ACROSS MENA

Es'hailSat delivers satellite services for broadcast, broadband, mobility, corporate and government customers across the Middle East, North Africa and beyond.

OUR PRODUCTS AND SERVICES INCLUDE:



VIDEO SERVICES

- Direct-to-Home
- Broadcast Distribution
- Broadcast Contribution & Occasional Use
- Digital Satellite News Gathering
- Playout & Media Services



TELECOM SERVICES

- VSAT Networks
- Cellular Backhaul
- Maritime Services
- Oil & Gas / Energy Services
- IP Trunking
- Mobility Services



TELEPORT SERVICES

- Tier-4 Certified
- Antenna Hosting
- Private Data Center Suite
- Co-Location Services
- Partial / Full Rack
- Studio Spaces



WORK



Shaping the Future in
Optical Communication,
RF Electronics and
Virtualized DIFI Solutions

work-microwave.com

