

# APSCC Monthly e-Newsletter

## JUNE 2022

The Asia-Pacific Satellite Communications Council (APSCC) e-Newsletter is produced on a monthly basis as part of APSCC's information services for members and professionals in the satellite industry. Subscribe to the APSCC monthly newsletter and be updated with the latest satellite industry news as well as APSCC activities! To renew your subscription, please visit [www.apsc.or.kr](http://www.apsc.or.kr). To unsubscribe, send an email to [info@apsc.or.kr](mailto:info@apsc.or.kr) with a title "Unsubscribe."

*News in this issue has been collected from May 1 to May 31.*

### INSIDE APSCC

#### **APSCC 2022 Satellite Conference & Exhibition (APSCC 2022), October 18-20, Seoul, Korea REUNITING SPACE IN ASIA! APSCC ANNUAL EVENT is BACK IN PERSON**

APSCC Satellite Conference and Exhibition, the largest three-day annual gathering of the Asia Pacific satellite community, is the defining platform that brings the professionals of the satellite and space industry together for market insight, striking partnerships and concluding business deals. APSCC is excited to gather again and provide various types of live events in person! Reconnect, communicate, and collaborate on the industry's challenges and opportunities that lie ahead to improve the quality of life in the Asia-Pacific region through Satellite and Space. Regarding sponsorship, exhibition and speaking opportunity, please contact the APSCC 2022 team at [apsc2022@apsc.or.kr](mailto:apsc2022@apsc.or.kr)

### SATELLITE BUSINESS

#### **Intelsat Selects Kratos' OpenSpace Satellite Ground Platform as Part of Its Next Generation Network**

May 31, 2022 – Kratos Defense & Security Solutions, Inc. announced that its OpenSpace™ Platform has been selected by Intelsat as a key component to unify the operations of its ground and space systems in its next generation network. Intelsat's next generation network will combine the latest in space, ground and cloud technologies to deliver robust, dynamic and flexible services to their customers. To execute against these goals Intelsat needs dynamic, standards-based software-defined platforms that can adapt quickly to changes at the space layer to deliver services where and when they are needed and support migration to 5G technologies. Kratos' OpenSpace Platform is the first and only software-defined satellite ground system. Fully virtualized and orchestrated, and built upon widely accepted industry standards, OpenSpace enables scalable deployment within an elastic, cloud-agnostic environment. With the OpenSpace Platform, Intelsat will be able to instantiate carrier-grade services in minutes instead of the weeks or even months commonly required with traditional hardware-based ground systems, allowing its customers to quickly deploy services and make service changes to meet evolving user needs.

#### **Inmarsat Fleet Hotspot Addresses Needs of Crew and Shipowners as Seafarer Connectivity Becomes a Requirement**

May 31, 2022 – In May 2022, eight significant amendments were agreed to update the landmark Maritime Labour Convention 2006 (MLC), including making onboard crew connectivity a requirement for ship owners. The new requirements come at a time when seafarer welfare is under increasing scrutiny from within and outside the shipping industry. As the world leader in global, mobile, satellite communications, Inmarsat is a strong proponent for the well-being of crew, and its Fleet Hotspot solution is helping ship owners address the requirements to ensure that crew remain socially connected while at sea. Powered by Inmarsat's industry-leading Fleet Xpress service, Fleet Hotspot delivers high-speed internet access allowing crew at sea to stay in contact with friends and relatives,

as well as stream music, films and series. Seafarers can access the user-friendly Fleet Hotspot portal on their own device to monitor their usage or top up their balances as required. The solution's value to seafarers and shipowners is evident with the average monthly crew spend on connectivity increasing at a high pace in the past two years.

#### **PT. Wahana Telekomunikasi Dirgantara (WTD) Indonesia Signs UHTP Ka Band Satellite with QSTC**

May 31, 2022 – QSTC Inc. announced the signing of an agreement with PT. Wahana Telekomunikasi Dirgantara (WTD) for the provision of turnkey UHTP Ka and Q/V band services satellites using a dedicated smart Geostationary Earth Orbit (GEO) satellite. Under the scope of the agreement, QSTC is the prime contractor responsible for delivering the services, based on the use of its fully electric satellite platform, Sigma100, with a communication payload together with master satellite control and ground segment. The satellite shall be providing coverage over South East Asia while demonstrating new and innovative digital communication payload. QSTC is Quebec, Canada based company providing space solutions and is redesigning the future of telecommunications satellites and addressing one of mankind's most pressing needs.

#### **DEWA Collaborates with Eutelsat to Develop its Space-D Programme and DEWA-SAT1**

May 31, 2022 – Dubai Electricity and Water Authority (DEWA) signed an MoU with Eutelsat to provide technical support for DEWA's Space-D programme and DEWA's 3U nanosatellite DEWA-SAT1. This will help develop nanosatellite Internet of Things (IoT) terminals and enhance connectivity between DEWA's assets and its nanosatellite. The cooperation aims to explore the potential integration of Eutelsat Earth Low Orbit (ELO) satellites with the Space-D programme and expand the fleet of nanosatellites for both parties. The two parties will design, develop and implement the first use-case at DEWA's Research & Development (R&D) Centre that combines using IoT sensors and Eutelsat ELO satellites and develop use-cases for advancing the utility sector worldwide.

#### **ST Engineering iDirect and ComClark Partner to Raise the Bar on Satellite Internet for Students across the Philippines**

May 30, 2022 – ST Engineering iDirect and Philippines-based value-added service provider for broadcast and telecommunications, ComClark Network and Technology Corporation, have come together to improve connectivity services for the country's public school network. Satellite services being rolled out at more than 2,000 remote schools in the Philippines will use the iDirect Evolution Hub, iQ Desktop modems, gateway antenna and HPA (High Power Amplifier). Global satellite operator SES will provide Ku-band capacity via the SES-9 satellite.

#### **NXTDIGITAL and THAICOM Ink MoU for Broadband-over-Satellite and Related Services in India**

May 30, 2022 – NXTDIGITAL LIMITED (NDL) and THAICOM PUBLIC COMPANY LIMITED, Thailand made a joint announcement of having signed a binding MOU to form a strategic partnership to enter the Broadband-over-satellite market and related services in India. The MOU envisages a partnership that includes deployment of BoS systems on India-focused capacity, which could be deployed on future additional capacity on state-of-art software-defined high throughput satellite and augment the existing IPSTAR-1 that is the first broadband satellite in the world and operational over India since several years. Partnership could also be in OneOTT Intertainment Limited (OIL), the broadband subsidiary of NDL and India's third largest private ISP with over 1 million customers and a presence in 150+ cities and towns. Thaicom and NDL will look to provide BoS services immediately on IPSTAR-1 - focusing mainly on the rural footprint of India, comprising 60% of NDL's customers, through the only HITS (Headend-In-The-Sky) platform in India. The BoS service will focus on providing cost-effective and quality broadband and will give a tremendous boost to delivering education, information, entertainment, health and other services to these markets.

#### **Eutelsat ADVANCE Selected by Telenor for Maritime Service in the Cruise Segment**

May 30, 2022 – Eutelsat has been selected by Telenor Maritime for in-orbit resources and managed

services for cruise connectivity on several of its satellites. Under the agreement Eutelsat will deliver capacity on EUTELSAT 33E for coverage of the Mediterranean Sea, and on EUTELSAT 65 West A satellite, together with its Eutelsat ADVANCE managed connectivity service, for coverage of the Caribbean Sea. The agreement provides Telenor Maritime with targeted resources and services in specific sailing areas, while further highlighting the maritime sector's interest in the Eutelsat ADVANCE service and supporting the strong momentum in the Mediterranean and Caribbean connectivity markets. Telenor Maritime is a global end-to-end connectivity provider at sea for passengers and crew, contributing to digitalising the commercial shipping fleet. Its partnership with Eutelsat on several Eutelsat satellites will further boost the performance, coverage and resiliency of its at-sea connectivity resources, providing reliable and secure connectivity solutions to the cruise segment.

#### **ST Engineering iDirect Partners with NiAT to Deliver Critical VSAT Connectivity to ACTIVATE Brunei**

May 29, 2022 – ST Engineering iDirect and Network Integrity Assurance Technologies (NiAT) will answer the heightened demand for satellite-based broadband communication services across Brunei as a result of the global pandemic. Like the rest of the world, Brunei experienced a COVID-driven surge of internet traffic as people were compelled to work-from-home, students relied upon remote learning, and the need for internet access in remote or rural areas was markedly increased. To meet this insatiable demand for internet access, NiAT took the initiative and launched its first VSAT service, ACTIVATE, utilizing the ST Engineering iDirect Evolution platform. ACTIVATE BruneiThe ACTIVATE system is an open, efficient and easily scalable IP-based satellite communications platform engineered to deliver the highest quality broadband connectivity for multiple markets. This will enable NiAT to expand into other sectors including Enterprise, Energy and Offshore, Maritime, Cellular Backhaul and Government and Defense.

#### **Kcell and SES Successfully Demonstrate Cellular Network Connectivity in Kazakhstan**

May 25, 2022 – Kcell, Kazakhstan's leading mobile network operator, and SES, the leading global content connectivity provider via satellite, have successfully demonstrated satellite-enabled cellular networks in remote parts of Kazakhstan. Kcell's terrestrial network was paired with SES's O3b satellites operating in medium earth orbit (MEO) to establish and test connectivity for 3G and 4G applications. During the demonstration, SES's satellite network was validated with a series of technical and end-user tests, proving its compatibility with Kcell's network to enable low-latency and high-speed internet.

#### **Speedcast Adds 13 Gbps of New Capacity to Its Unified Global Platform at Record-Setting Pace to Meet Customer Growth Surge**

May 25, 2022 – Speedcast announced today that in response to surging demand in the cruise and energy markets it serves, the company has significantly expanded its Unified Global Platform (UGP), adding 13 Gbps of capacity to its network over the last month. Speedcast operates one of the largest technology agnostic networks in the world. Following this latest expansion, the platform now includes 30 Gbps of total bandwidth, which the company leverages in the design and deployment of complete managed connectivity solutions for customers across energy, passenger and commercial maritime, and enterprise markets.

#### **LeoLabs Wins Contract Award to Support Japan Air Self Defense Force with Commercial Space Domain Awareness**

May 24, 2022 – LeoLabs, Inc. announced a multimillion-dollar award to provide data and services for the Japan Air Self Defense Force (JASDF). The agreement offers Japan access to the largest set of actionable insights in existence for tracking satellites and orbital debris in low Earth orbit (LEO), all generated from LeoLabs' global network of phased array radars. LeoLabs will deliver its LEO data and services platform and a full set of training to empower JASDF operators to utilize a range of data and tools, including tracking and monitoring, collision avoidance, and other services. The contract award

defines a specific set of state-of-the-art tools and data from LeoLabs that will serve JASDF operational requirements in LEO and will be delivered as a subscription service.

### **First Details of Jet ConneX Evolution Programme for Business Aviation Unveiled by Inmarsat**

May 24, 2022 – Inmarsat unveiled initial details of a major upgrade programme that will increase the inflight broadband speeds offered by its Jet ConneX (JX) business aviation solution. Information about the ground-breaking programme, titled JX Evolution, were announced for the first time at the European Business Aviation Convention & Exhibition (EBACE) in Switzerland. JX Evolution will set an unprecedented new standard for business aviation inflight connectivity by leveraging Inmarsat’s global Ka-band satellite network, including enhanced capabilities from its highly advanced upcoming satellites, in addition to the latest terminal technology from partners. Initial testing for the upcoming programme has already demonstrated speeds in excess of 130 megabits per second (Mbps) using Inmarsat’s existing satellites. This will enable users to simultaneously connect even more devices and enjoy even the most data-hungry applications, such as high definition video, without interruption. As an example, it would take 23 seconds to download a high definition movie.

### **INTEGRASYS Opens New Office in Luxembourg**

May 24, 2022 – INTEGRASYS founded INTEGRASYS SARL, and opens the new Luxembourg facility in Kirchberg, Luxembourg financial district. INTEGRASYS SARL is responsible for commercializing INTEGRASYS technologies in the heart of Europe and innovating in R&D. The software company has ambitious expansion plans, to achieve a major presence globally. This next step has been Luxembourg, as INTEGRASYS sees great potential in this country, and the location is a strategic point to start the European expansion. The office is at 2 Rue Edward Steichen. The company already has customers in the Luxembourg area and surroundings; therefore, this new opening brings great opportunities, to strengthen these partnerships. The next step for the company is to start serving its customers’ demands, understanding in depth the market, and providing adaptable solutions to potential customers as products as a service, and custom projects.

### **OneWeb and Benya Group Collaborate to Provide Connectivity Services in the Middle East & Africa**

May 23, 2022 – Benya Group, the leading digital solutions and ICT infrastructure provider in Egypt and the MEA Region, today announced the signing of a Memorandum of Understanding (MoU) with OneWeb, the low Earth orbit satellite communications company. OneWeb NEOM JV, a joint venture formed by OneWeb and NEOM in the Kingdom of Saudi Arabia with the purpose of providing high-speed satellite connectivity to NEOM, the Kingdom, the wider Middle East and neighboring East African states has agreed this MoU with Benya Group. The signing took place during CABSAT in Dubai on May 19th 2022 and marks Benya Group's first satellite project. The MoU will facilitate discussions between the parties regarding the support and maintenance of telecom infrastructure throughout the Middle East and Africa, with the goal of providing fully integrated telecom networks to the network infrastructure of Benya Group’s clients.

### **Inmarsat, Honeywell Launch World’s Fastest L-band Inflight Connectivity Service**

May 23, 2022 – Inmarsat and Honeywell are setting a new benchmark in satellite communications with the launch of SwiftJet, their latest inflight connectivity service for the business aviation industry. It will enter commercial service in the first half of 2023 and deliver the fastest ever speeds over L-band. As one of the first new services to be introduced on Inmarsat’s ELERA satellite network, SwiftJet will offer seamless global coverage across flight routes with maximum speeds of 2.6Mbps, up to six times faster than Inmarsat’s existing business aviation connectivity solution over L-band. This will allow passengers to create a secure ‘office in the sky’ with enhanced capabilities for video calls, web browsing, email, texting, cloud-syncing and collaboration tools such as Microsoft Teams. Social media and video applications such as TikTok and YouTube, which were previously challenging over L-band, will also be enabled.

### **Satellogic Announces Enhanced Operations in Australia to Serve the APAC Region**

May 23, 2022 – Satellogic Inc., a leader in sub-meter resolution Earth Observation data collection, announced today that it is enhancing its operations in the Australian market to strengthen its regional customer relationships and provide local support for a growing APAC space economy. The regional presence will be overseen by Ken Fritschel, Vice President, International Sales, Satellogic. Satellogic currently operates 22 high-resolution satellites and expects to grow its constellation to 34 satellites by Q1 2023. By 2025, the Company expects to have over 200 satellites in orbit to provide daily remaps of the entire surface of the Earth, and up to 40 revisits of points of interest per day.

### **Gogo Business Aviation to Launch LEO Global Broadband Service**

May 22, 2022 – Gogo Business Aviation will launch the first global broadband service in business aviation to use an electronically steered antenna (ESA) on a low earth orbit (LEO) satellite network. Gogo's exclusive antenna assembly, designed in conjunction with Hughes Network Systems, LLC (Hughes), will be small enough for installation on the fuselage of business aircraft from super light jets and large turboprops to ultralong-range jets, and will operate on OneWeb's high-speed, low-latency broadband global network. To access the network, the new service will require just one Gogo AVANCE LRU inside the aircraft, which means existing AVANCE customers will only have to install the ESA antenna, with a single cable for power in, and a single cable for data out.

### **ABS Delivering Satellite Connectivity to Oil and Gas Operations in Myanmar**

May 18, 2022 – ABS, a global satellite operator, has announced it has secured a multi-year, multi-link contract with Seanet Technologies Myanmar Co. Ltd (SEANET), a VSAT service provider to expand its oil and gas communications services. The deal will deliver satellite connectivity to the Bay of Bengal and the Andaman Sea around Myanmar via ABS-2. ABS offers a high-performance VSAT solution catered specifically to the demanding broadband needs of the oil & gas industry. ABS-2 is capable of supporting critical services and streamline operations, providing multiple offshore platforms with access to real-time monitoring. It can also improve crew welfare, safety and healthcare conditions. In a single satellite link, separate virtual channels can be configured for corporate and crew connectivity. SEANET is one of the leading VSAT service providers in Myanmar providing services to many sectors including telcos, oil & gas, enterprises and corporate entities. SEANET operates two premium teleports hosting an array of teleport and managed services.

### **Nelco and Telesat Complete Successful LEO Demonstrations in India for Enterprise, Telecom and Government Sectors**

May 18, 2022 – Nelco and Telesat have successfully conducted their first in-orbit demonstration of high-speed broadband connectivity in India with Telesat's Phase 1 Low Earth Orbit (LEO) satellite, marking yet another milestone for bringing next-generation satellite communication technologies to the country. The testing campaign was conducted from April 25th to 29th 2022 at Nelco's Mahape teleport and leveraged an 85-cm Intellian parabolic antenna to connect to Telesat's Phase 1 LEO satellite. Over 50 representatives from enterprise and telecom companies and government departments participated in the live testing and proof-of-concept demonstration, witnessing high-speed, fibre-like performance with 35 millisecond roundtrip latency. A wide range of cloud-based applications were demonstrated including real-time video conferencing over Microsoft Teams, as well as YouTube and Live TV video streaming.

### **Navarino Signs MoU with OneWeb to Extend Enterprise Connectivity to Commercial Ship Operators Globally**

May 18, 2022 – OneWeb and Navarino, one of the world's leading maritime technology companies, has signed a Memorandum of Understanding (MoU) to become a global Distribution Partner to deliver high speed, low latency connectivity to the global commercial shipping industry. Combining Navarino's maritime technology solutions with OneWeb's high speed, low latency connectivity will offer maritime customers seamless access to OneWeb's fast, reliable, and affordable connectivity

solutions. A series of sea trials will be undertaken with Navarino focusing on the first vessels connected from Q1 2023.

### **ST Engineering iDirect Positions InterSAT for Business Growth with Significant Technology Upgrade**

May 16, 2022 – ST Engineering iDirect will provide internet service provider and longtime customer, InterSAT Communication Services FZCO, with a significant technology upgrade, enabling it to deliver enhanced services to its customers across the African continent. The upgrade to its existing Evolution® platform will allow InterSAT to leverage new technologies and efficiencies to remain competitive in an increasingly challenging market. One of the largest and most respected internet solutions providers in Africa, InterSAT serves a portfolio of different verticals, providing essential satellite-based connectivity across the entire African continent to NGOs, SMEs, governments, oil and gas companies and the broadcast sector. The company is focused on offering leading edge connectivity, investing heavily in state-of-the-art technology that makes service delivery better and faster. The upgrade of its ground systems has been a pivotal part of this evolution.

### **COMSAT and Satcom Direct Communications Form SD Government for Enhanced Customer Offerings, Support and Service**

May 16, 2022 – Satcom Direct, the business aviation solutions provider, has ramped up its support for military and government customers by unifying COMSAT and SD Communications, under a new brand, SD Government. The rebrand brings its military and government services and support under one umbrella to deliver customers streamlined access to the entire SD ecosystem of services, for an even stronger connectivity and support experience. The integration of SD Government with the collective SD hardware, software and infrastructure units will more effectively leverage the full capabilities of Satcom Direct, to provide enhanced products and services to a customer base requiring reliable, consistent connectivity to support mission critical situations.

### **OneWeb and Telefónica Collaborate to Extend Connectivity across Europe and Latin America**

May 13, 2022 – OneWeb and Telefonica through, Telefónica Global Solutions (TGS), the subsidiary of global telecommunications company Telefónica that manages the international Wholesale, Global Roaming, Multinationals and USA businesses, have signed a Memorandum of Understanding (MoU) to improve connectivity services across Europe and Latin America. The collaboration arrangement between OneWeb and TGS comes as the need to expand modern, digital infrastructure has become a priority for governments, businesses and communities across Europe and Latin America. OneWeb's efficient, high-performance low Earth orbit (LEO) satellite service will complement Telefónica's existing offering in Europe and Latin America, enabling Telefónica to reach remote regions that they have not previously been able to serve. TGS will offer its expertise to promote and supply OneWeb's low latency cellular backhaul services that can be deployed to help improve existing backhaul and support network upgrades to 4G/5G, while also providing backhaul backup for critical sites and infill capacity for special events. Where backhaul does not currently exist, OneWeb's service will help expand Telefónica's mobile coverage and extend enterprise connectivity.

### **Seadrill Renews Speedcast Connectivity Partnership with Three-Year Service Agreement**

May 10, 2022 – Speedcast, a leading communications and IT services provider, today announced that the company has been selected by Seadrill to continue providing services for its global fleet via a three-year contract. Under the terms of the agreement, Speedcast will deliver the latest connectivity solutions to best serve Seadrill's deepwater drilling fleet in operation across the Gulf of Mexico, Brazil, North Sea and African Coast regions. Seadrill is a global drilling contractor operating drill ships, jack-ups and semi-submersible assets for shallow and deepwater oil and gas projects.

### **Rivada Space Networks Joins ITU Partner2Connect Digital Coalition to Foster Global Connectivity**

May 12, 2022 – Rivada Space Networks GmbH, a disruptive new company launching a constellation of 600 low-Earth-orbit communications satellites, has announced a pledge of \$112 million toward

creating an Open Access Platform for the ITU Partner2Connect Digital Coalition to help bridge the digital divide. Today, around 2.9 billion people – 37 per cent of the world’s population – have never used the Internet despite a global surge in connectivity in the past two years. An estimated 96 per cent of them live in developing countries. In response to the continuing challenge of the digital divide, the ITU has launched the Partner2Connect Digital Coalition, a multi-stakeholder alliance to help mobilize resources to transform societies, promote sustainable digital technology uptake, and ensure meaningful connectivity for everyone.

### **Singtel Launches iSHIP, Industry’s First All-in-One Maritime Service**

May 12, 2022 - Singtel has unveiled iSHIP, an all-in-one platform providing critical satellite-enabled connectivity and digital services for the maritime industry. iSHIP’s integrated services for crew and fleet management gives ship managers and owners greater flexibility and visibility of their resources and operations, enabling better crew wellbeing, vessel safety and operational efficiency. Presently, nearly 90% of all goods from finished products to food, fuel and more are shipped over the seas, with maritime trade volume set to triple by 2050. To keep ships running and global seaborne trade flowing during the pandemic, shipping companies had to rapidly digitalise critical operations such as navigation, power supply, engine control and cargo management that were traditionally manual tasks while ensuring ship crews stay health and safe.

### **MEASAT-3d Satellite to Connect 2 Million Rakyat Lacking High-speed Broadband Access**

May 11, 2022 – MEASAT Global Berhad is set to close the digital gap in rural areas, with the upcoming launch of the MEASAT-3d satellite on 22 June 2022, French Guiana Time. Using the High Throughput Satellite (HTS) capacity on MEASAT-3d, Malaysians will be able to enjoy high-speed internet whether in urban and suburban areas or hard to reach rural villages, via MEASAT’s CONNECTme NOW satellite broadband service. MEASAT’s CONNECTme NOW will connect 10,000 sites in the next three years to serve more than two million rakyat in remote areas that currently have no or limited access to high-speed broadband internet. To date, MEASAT has rolled out more than 3,000 CONNECTme NOW sites nationwide, with a majority in the remote areas of Sabah and Sarawak. In addition, other telecommunications providers can also tap on the new satellite to offer data, voice and video services to the last 3-5% of the population not yet covered by fibre connectivity or wireless broadband.

### **EUTELSAT 172B Selected by Tuvalu to Deliver State-of-the-Art Connectivity to Tuvalu**

May 10, 2022 – Eutelsat Communications and The Tuvalu Telecommunications Corporation (TTC) have signed a contract for capacity on EUTELSAT 172B satellite to support the extension of corporate networks for government offices and key enterprises of the Tuvalu Islands. Under the terms of this multi-year agreement, Tuvalu Telecommunications Corporation will be leveraging the unparalleled coverage of EUTELSAT 172B to fulfill its commitment to curb the digital divide in isolated areas. This agreement showcases yet again the full-fledge flagship role of satellite in providing a complete connectivity solution to end users. Tuvalu Telecommunications Corporation (TTC), the sole provider of telecommunications in Tuvalu, is a state-owned enterprise, which provides telecommunications and ICT services to subscribers on each of the islands and atolls of Tuvalu.

### **NASA Selects SES Government Solutions to Support Near-Earth Communications**

May 10, 2022 – SES Government Solutions, a wholly-owned subsidiary of SES, in partnership with Planet Labs PBC (Planet), has been awarded a Funded Space Act Agreement from NASA’s Communications Services Project (CSP) to support the development and demonstration of near-Earth communication services in support of the agency’s future mission needs. SES GS will partner with Planet to develop a real-time always-on low-latency connectivity solution enabled by SES’s geostationary (GEO) and medium earth orbit (MEO) constellations, including O3b mPOWER, to further NASA missions. Planet brings over a decade of experience in designing and manufacturing cutting-edge low-cost Earth observation satellites and radio communication systems. SES GS has

been awarded nearly USD 29 Million through NASA's Funded Space Act Agreement to demonstrate commercial radio frequency GEO C-band and MEO Ka-band relay networks for SATCOM services to spacecraft in low earth orbit. These services include routine missions, contingency operations, launch and ascent, and early operations phase communications.

### **Inmarsat Elevate Launched to Accelerate IoT Industry Growth**

May 10, 2022 – With more businesses recognising the impact of IoT technologies on their operations and on the world, and the number of global satellite IoT connections set to continue growing at a 25% CAGR [Source: Omdia] in the coming years, the need for a 'one stop shop' for IoT solutions has never been greater. To accelerate these IoT opportunities for businesses around the world, Inmarsat, the world leader in global, mobile satellite communications, is announcing Inmarsat ELEVATE, a new partner programme offering three key pillars to support businesses throughout the IoT ecosystem and to cement the industry's future growth. In the next five years, the goal of Inmarsat ELEVATE is to help partners achieve double digit growth – as well as establishing Inmarsat ELEVATE as the leading IoT marketplace for solutions that work anywhere in the world.

### **Intellian Accelerates Production Capacity with Launch of New South Korea Factory**

May 4, 2022 – Intellian has announced the upcoming launch of another factory in Pyeongtaek, South Korea, marking an expansion of the company's HQ base. The new factory, operational from August 2022, is situated 4km from the existing factory, providing seamless expansion. The additional factory will serve increasing customer and partner demand and further power Intellian's growth trajectory. Marking Intellian's second manufacturing location in Korea, this new factory will increase both the company's production and warehouse capacity by three times. This supercharged capacity provides customers and partners with scalability going forwards, enabling them to meet increasing demand in the growing satellite industry: the global small satellite market reached \$4.70 billion in 2021 and is projected to grow to \$10.75 billion in 2028.

### **SES and ESA to Enable GovSatCom with Medium Earth Orbit Constellation**

May 4, 2022 – SES announced today that its non-geostationary medium-earth orbit (MEO) satellite network will now be part of the GovSatCom-grade satellite communications platform that it has developed with the co-funding by ESA. Thanks to SES's O3b high-throughput, low-latency and secure communications features, its MEO satellite network is ideal for data-intensive applications sought by the European governments, including Remotely Piloted Aircraft Systems (RPAS) operations, high-performance networks, cloud services and allowing for Artificial Intelligence (AI), Machine Learning (ML), and more. The new agreement with ESA succeeds PACIS-1 that resulted in the development of a dedicated platform comprising geostationary satellites for governments and institutions – SES's REACH platform. The new agreement will see the technical integration of the non-geostationary satellites in MEO into the platform, enabling users with even higher performance thanks to the SES's first MEO constellation, O3b, and its upcoming second-generation MEO system, O3b mPOWER.

### **Kacific Launches CommsBox: An All-in-One, Transportable WiFi Communications Solution for Disaster Relief**

May 3, 2022 – Kacific Broadband Satellites Group is launching an innovative emergency connectivity solution, CommsBox, designed to provide broadband service in emergency or disaster zones rapidly. Kacific CommsBox is a transportable, all-in-one satellite communications product that can be rapidly deployed in disaster zones when other communication channels fail. The turnkey solution is designed to meet the particular disaster response requirements of territories in South East Asia and the Pacific. The first-of-its-kind in disaster recovery solutions, Kacific Commsbox consists of pre-configured, solar-powered units which, with minimal setup, provide instant internet access to assist relief operations and connect users. Governments, civil defense, police, military, rescue services, and aid operations can store the CommsBox units in remote locations or transport them directly into disaster zones.

### **COMNET and SES Extend Network Services across Central America via SES-17 Satellite**

May 3, 2022 – SES and COMNET announced that the two companies have extended their long-term partnership to jointly deliver high-performance, next-generation broadband services to enable applications supporting agriculture, trade, tourism, energy, financial, health and education sectors across Central America. The Guatemalan service provider will leverage SES-17 Ka-band satellite capacity and SES's managed services to offer a new QUANTTUM Ka enterprise solution, an extension to COMNET's QUANTTUM portfolio of broadband services. In the last 15 years, COMNET has been leveraging SES's extensive satellite fleet and managed services in C-, Ku- and now Ka-band to provide reliable connectivity services to underserved areas in the isthmus. Powered by SES's first high-throughput geostationary (GEO) satellite operating in Ka-band, COMNET's QUANTTUM Ka solution will provide high-quality, reliable and fast internet connectivity services to help accelerate digital access in the region, especially as countries continue to adapt and respond to the pandemic. The solution will enable telemedicine, remote education and Internet of Things applications, while supporting business continuity with redundancy services to help mitigate the impact of natural disasters in a region prone to climate and geological events.

### **Northern Sky Research (NSR) to Become Part of Analysys Mason**

May 3, 2022 – Analysys Mason, a world-leading management consultancy focused on telecoms, media and technology (TMT), today announced the acquisition of Northern Sky Research (NSR), a specialist satellite and space research and consulting firm. Founded in 2000, NSR is a prominent global provider of satellite and space market research and consulting services specialising in the analysis of growth opportunities across four core industry sectors: satellite communications, satellite & space applications, financial analysis and satellite & space infrastructure. The combination of NSR's industry-leading satellite and space expertise and Analysys Mason's strong international market position in the TMT sector will provide an exceptional breadth of services to new and existing clients worldwide, underpinned by a unique knowledge base spanning 5G, fibre and satellite platforms.

## **BROADCAST**

### **Sky UK Renews Capacity with SES in Latest Multi-Year Deal**

May 3, 2022 – Audiences across the United Kingdom and the Republic of Ireland will continue to enjoy their favourite premium content via Sky UK, as the leading pay-TV operator extended multiple transponder contracts with SES. This renewal secures an additional contract backlog of approximately EUR 84 million, building on the EUR 90 million capacity agreement signed between the two companies in 2021, with contract durations up to end 2028. With this renewal, Sky UK will continue to leverage the Ku-band capacity at SES's prime neighbourhood at 28.2/28.5 degrees East to deliver TV channels in standard definition (SD), high definition (HD) and ultra-high definition (UHD) to their subscribers. 28.2/28.5 degrees East is one of SES's prime TV neighbourhoods reaching more than 18 million TV homes in the UK and Ireland.

## **LAUNCH / SPACE**

### **Mitsubishi Electric Develops Laser Communication Terminal Integrating Space Optical Communication and Spatial Acquisition**

May 30, 2022 – Mitsubishi Electric Corporation has developed the prototype of what is believed to be the world's first\* optical receiver for use in laser communication terminals (LCTs), that integrates space optical communication using laser beams and a function to detect the direction of received beams in the 1.5- $\mu\text{m}$  band, a general-purpose band used for terrestrial optical fiber communications and other applications. High-resolution satellite imagery is used to assess damage caused by disasters, but since such images are transmitted via radio waves it has been difficult to transmit high-resolution images in real time due to limitations in data capacity and the size of satellite antennas. Large-

capacity, high-speed space optical communications that do not require optical fiber are thus required to support fast and accurate damage assessments following disasters. But space optical communications use very narrow laser beams, about 1/1000th of that of radio waves, so the challenge has been how to precisely align laser beams with satellites traveling at high speed.

### **Omnispace Spark-2™ Satellite Successfully Launches into Orbit**

May 26, 2022 – Omnispace and Thales Alenia Space announced the successful launch and delivery of "Omnispace Spark-2™" satellite into orbit. This marks the completion of the deployment phase of the "Omnispace Spark™" program, the initial phase in the company's development and delivery of the world's first 5G capable satellite network. Omnispace Spark-2 was delivered into orbit by Exolaunch aboard a SpaceX Transporter mission on Wednesday, May 25. Thales Alenia Space designed and built the Omnispace Spark satellites with the help of industry partners: NanoAvionics, ANYWAVES, and Syrlinks. Omnispace Spark-1, launched in April 2022, and Omnispace Spark-2 will now be used to advance and validate the development and implementation of Omnispace's global non-terrestrial network (NTN). As prime contractor, Thales Alenia Space designed and built the Omnispace Spark satellites with the help of industry partners: NanoAvionics, ANYWAVES, and Syrlinks.

### **Fleet Space Announces Launch of Next-Generation Centauri 5 Satellite on Space X Falcon 9**

May 26, 2022 – Fleet Space Technologies announces that it successfully launched its next-generation Centauri 5 satellite on the Space X Falcon 9 Transporter-5 mission. This was the company's third launch with SpaceX, following the successful deployment of Centauri 4 on the Transporter-2 mission in June 2021. Centauri 5 will be placed in low earth orbit (LEO) at an expected altitude of some 530km (330 miles). A 6U sized microsat with a total weight of 12kg, it will add capacity, reduce latency and provide additional network redundancy in the existing six-strong Centauri constellation, which Fleet operates in collaboration with Tyvak International. Upgrades to the Centauri 4 payload includes enhancements that mitigate the effects of radiation in Low Earth Orbit (LEO), direct communication links to Fleet's ground station, and an extended S-Band range, allowing uplink at standard ground station frequencies.

### **Spaceflight Inc. Successfully Debuts its Latest OTV, Sherpa-AC**

May 25, 2022 – Spaceflight Inc., the leading global launch services provider, today announced it has contacted its Sherpa-AC vehicle and confirmed the vehicle is operating nominally. This is the debut launch of Sherpa-AC, the latest variation in the company's Sherpa orbital transfer vehicle (OTV) portfolio. The Transporter 5 rideshare mission on board a SpaceX Falcon 9 lifted off from Cape Canaveral on May 25 headed to a Sun Synchronous orbit, 525km. Spaceflight successfully delivered all five customer payloads, including two hosted payloads on the Sherpa OTV, to their desired orbital destinations. The Transporter 5 mission marks Spaceflight's 51st launch, its sixth in 2022, and the first launch of the Sherpa-AC OTV model. Sherpa-AC, named for its "Attitude Control" capabilities, augments Spaceflight's base free-flying Sherpa with key functionality including a flight computer, attitude knowledge and control, and more, making it ideal for servicing hosted payloads on orbit.

### **Thales Alenia Space, OHB System Partner, Reaches Key Milestone in Development of Copernicus CO2M Satellites**

May 23, 2022 – Thales Alenia Space, a joint venture between Thales and Leonardo, has signed an amendment to its CO2M contract worth €169 million with project prime contractor OHB System for the development and qualification of the payloads for the first two satellites in the CO2M mission, part of Europe's Copernicus program. Copernicus is the core satellite Earth-observation program of the European Commission and a cornerstone of the European Space Agency's (ESA) activities in this field, providing Earth-observation data for environmental protection, climate monitoring, natural disaster assessment and other social tasks.

### **Space Machines Partners with Space X**

May 19, 2022 – Space Machines Company (SMC), the Australian in-space transportation and logistics startup, today announced it has secured SpaceX as a launch provider to carry its Optimus Orbital Transfer Vehicle (OTV) to space as part of its April 2023 rideshare mission. SMC's Optimus OTV is one of the largest commercial spacecraft designed and manufactured in Australia. It is a testament to the innovation of Australia's space tech sector and the sovereign capability being built by SMC. This 2023 mission will demonstrate the 270 kg Optimus OTV's ability to deliver in-space logistics services and will reinforce SMC's strategy as a last-mile delivery services provider. The 2023 mission will also see SMC deploy solutions for foundation customers. The Optimus spacecraft's assembly and integration will occur at the Space Machines Company facility within the University of Technology Sydney's (UTS) Tech Lab and will demonstrate Australian sovereign access to space capability.

### **Japanese Radar Constellation IQPS Selects Virgin Orbit for 2023 Orbital Launch**

May 6, 2022 – Virgin Orbit announced today the signing of a launch services agreement with Japanese earth observation constellation operator Institute for Q-shu Pioneers of Space, Inc. ("iQPS"). The satellite is expected to join Virgin Orbit's manifest for early 2023. The iQPS QPS-SAR-5 to be launched by Virgin Orbit is expected to play a critical role in enabling near real-time earth observation by iQPS's Synthetic Aperture Radar (SAR) constellation. iQPS enables the development of small, high-performance SAR satellites by employing a unique deployable antenna that is large, yet easy to stow and weighs only 10 kg. It is also capable of penetrating clouds and collecting high-resolution images even in adverse weather conditions, enabling frequent and important earth observation missions. iQPS is planning to establish a constellation of 36 satellites which enable the observation of particular locations almost everywhere in the world in around 10 minutes or every 10 minutes to a fixed area for observation. Additionally, iQPS has succeeded in acquiring 70 cm resolution images with QPS-SAR-2, and subsequent satellites including QPS-SAR-5 are expected to achieve even higher resolution.

### **CGWIC Launches JILIN-1KF01C as Main Satellite and JILIN-1GF03D27-33 as Secondary Satellites by LM-2D Launch Vehicle**

May 5, 2022 – At 10:38, May 5th, 2021 BJT, Long March 2D (LM-2D) Launch Vehicle blasted off from Taiyuan Satellite Launch Center (TSLC), sending Jilin-1KF01C Satellite as main passenger, as well as seven secondary passengers Jilin-1GF03D27-33 Satellites into predetermined orbit, achieving a complete success. The launch services for the eight satellites are prime-contracted by China Great Wall Industry Corporation (CGWIC), a subsidiary of China Aerospace Science and Technology Corporation (CASC). Jilin-1KF01C Satellite is a remote sensing satellite designed and manufactured by Chang Guang Satellite Technology, which is used to obtain panchromatic and multispectral images of earth observation with large width and high-resolution and provide the remote sensing services for smart city construction, territorial and mineral resources exploration. Jilin-1GF03D27-33 Satellites are seven remote sensing satellites with high-resolution developed by Chang Guang Satellite Technology, these satellites will be applied in providing the high-resolution remote sensing information and images for valuable customers. LM-2D Launch Vehicle is the liquid two-stage launcher designed and manufactured by Shanghai Academy of Spaceflight Technology (SAST), also a subsidiary of CASC. The designed capacity of LM-2D is 1200kg for 700km sun synchronous orbit. This mission is the 59th launch of LM-2D.

### **Astroscale's ELSA-d Mission Successfully Completes Complex Rendezvous Operation**

May 4, 2022 – Astroscale Holdings Inc. announced that, despite several unexpected setbacks, its End-of-Life Services by Astroscale-demonstration (ELSA-d) mission successfully completed further controlled close-approach rendezvous operations between its two spacecraft in orbit. The technologies proven in this demonstration include tracking of an object from a great distance, rendezvous with an uncontrolled object, and handover from absolute navigation to relative navigation for a low-Earth orbit (LEO) servicing spacecraft. These capabilities are essential for rendezvous and proximity operations and on-orbit servicing, and this demonstration is

unprecedented for a commercially funded mission in LEO. ELSA-d is the world's first commercial mission to prove the core technologies necessary for on-orbit satellite servicing in LEO. The mission, which consists of two satellites — a servicer designed to safely remove debris from orbit and a client that serves as a piece of replica debris — was launched as a stack into a 550 km orbit from the Baikonur Cosmodrome in Kazakhstan in March 2021. The first demonstration, in which the servicer released the client and manually performed magnetic docking, was completed on August 25, 2021, successfully validating the capture system, on-board sensors and cameras.

### **Satellogic Announces Multiple Launch Agreement with SpaceX for its Next 68 Sub-Meter Resolution Earth Observation Satellites**

May 4, 2022 – Satellogic Inc. has signed a new Multiple Launch Agreement (“MLA”) with SpaceX reserving launch capacity for its next 68 satellites. This new MLA follows the current MLA covering 2022 launches, and confirms that SpaceX continues to be Satellogic’s preferred vendor for rideshare missions, meeting the capacity demands of Satellogic’s constellation roadmap and providing shorter periods between satellite development and deployment. Satellogic builds its own spacecraft, manages its constellation, and productizes the EO data it collects to better serve its customers in every industry. This vertical integration ultimately reduces the cost of deriving insights from EO, enabling Satellogic to offer actionable data at a price point that a broader range of organizations can afford. Similarly, SpaceX, which has a focus on decreasing the cost of space access, manufactures its own advanced rockets and spacecraft, allowing for more affordable options and greater innovation. SpaceX’s frequent launch schedule will help Satellogic accomplish its goals to significantly grow its constellation.

## **EXECUTIVE MOVES**

### **Comtech Promotes Timothy Jenkins to President of Safety & Security Technologies Product Group**

May 12, 2022 – Comtech Telecommunications Corp. announced that Timothy Jenkins will become President of its Safety and Security Technologies product group, effective as of June 1, 2022. Jenkins has been with Comtech for over three years, joining the company through its 2019 acquisition of the state and local government next-generation 911 business from General Dynamics Information Technology, Inc. Most recently, he has served as Group Vice President and General Manager within the Safety and Security Technologies organization, leading the implementation of next-generation 911 capabilities for customers across the United States. Jenkins has been involved in the public safety and 911 industry for over 28 years, serving in leadership positions at Ameritech and SBC Communications (subsequently acquired by AT&T) and Intrado.

### **OneWeb Expands Mobility Team with Senior Aviation and Land Appointments**

May 10, 2022 – OneWeb has strengthened its Mobility team under VP Mobility Services Ben Griffin with a trio of experienced professionals – in the UK and USA. OneWeb is ramping up its work to deliver high-speed, unparalleled low latency, reliable connectivity across all mobility platforms, including commercial and business aviation, land and marine. Jason Sperry joins OneWeb as Director, Business Aviation, based out of Melbourne, Florida. At OneWeb, Jason is responsible for delivering fibre-like connectivity solutions to business jet owners, operators, and end users - passengers and crew alike. Drew Brandy joins OneWeb as Director, Land Mobility after 13 plus years with Inmarsat, latterly as Senior VP Maritime, progressing from VP Strategy and Development. Based out of London, Drew will be responsible for setting and executing OneWeb’s land mobility portfolio strategy, working closely with the mobility team members. Stepping up from an initial consultancy role over the past 14 months, Nick Maynard becomes full-time Marketing Director (Mobility), based out of the UK. Maynard brings over 25 years’ relevant experience in marketing and communications working out of the UK and UAE, supporting several blue-chip aviation companies - inhouse and with agencies OglivOne and Carlson.

### **Comtech Appoints Ken Peterman to Board of Directors**

May 10, 2022 – Comtech Telecommunications Corp. announced today that it had appointed seasoned satellite executive Ken Peterman to Comtech’s Board of Directors. Ken will join the Board’s Science and Technology Committee. An award-winning global executive leader, Peterman’s accomplished career spans over forty years in the defense segment, accumulating credentials across a wide array of markets and both commercial and government satellite systems. He has augmented a strategic landscape in tactical and satellite communications, cybersecurity, and C4 defense technology sectors through tenures at the President/CEO and VP/GM level of top defense companies including Viasat, ITT/Exelis, Collins Aerospace, Raytheon and SpyGlass Group. Most recently, as President at Viasat Government Systems, Peterman led a world-class satellite communications, mobile networking and cybersecurity portfolio.

### **Intelsat Adds Further Industry Experience to Executive Team**

May 5, 2022 – Intelsat today named four seasoned aerospace and tech leaders to key financial and commercial roles. Anthony (Toby) O’Brien will become Intelsat’s next chief financial officer (CFO). Bringing a wealth of experience to the job, O’Brien most recently served as corporate CFO for Raytheon Technologies after a five-year stint as CFO for Raytheon Company before its merger with United Technologies. Michael DeMarco, currently Intelsat’s chief services officer will become the new chief commercial officer (CCO), responsible for all Intelsat commercial services offerings to include product management, sales activities, sales engineering, and pricing. He will continue to report to Wajsgras. Clay McConnell has been named the company’s senior vice president of Corporate Communications and Marketing. McConnell came to Intelsat after three decades in communications at Delta Air Lines and Airbus SAS, where he most recently served as head of communications for Airbus Americas. McConnell also reports directly to Wajsgras. Jeff Sare joins the company as the new president of Intelsat’s Commercial Aviation division. Sare comes to Intelsat from his role as vice president and Connectivity Solutions business segment leader at Panasonic Avionics.

## **REPORTS**

### **NSR: Satellite Capacity Pricing Stabilizing, yet Increasingly Complex Period for Pricing Negotiations**

May 31, 2022 – NSR’s *Satellite Capacity Pricing Index*, 8th Edition finds Satellite Operators sitting at a crossroads of multiple macro-economic headwinds, external competitive pressures, and supply chain challenges, driving need for innovative strategies. As pricing stabilizes in Q2 2022, technology efficiencies, supply-demand gap and macro-economic factors trigger increasingly complex pricing negotiations. For some service providers, such as SpaceX, inflation pressure enables an increase in end-user pricing; however, due to competitive pressures, many wholesale capacity providers do not have the bargaining power to significantly increase pricing.

### **Euroconsult: Space Logistics Markets Ready to Grow as On-orbit Supplier Services Materialize**

May 18, 2022 – A nascent but growing set of on-orbit space services, to be articulated as a space logistic ecosystem from launch to satellites’ end of life, are being developed by more than 50 companies. According to Euroconsult’s 1st edition of *Space Logistic Markets report*, this diverse set of on-orbit services is expected to generate \$4.4 billion by 2031. The six markets covered in this report highlight the development of end-to-end on-orbit mobility and associated services through Access to space, Last Mile Logistics (LML), Life Extension, Active Debris Removal (ADR), On-orbit Assembly and Manufacturing (OOAM) and Space Situational Awareness (SSA) at different stages of maturity.

### **NSR: Land Mobile Satellite Market Moving to Broadband and \$1.2 Billion Revenue Potential**

May 5, 2022 – In its 10th year, NSR’s landmark *Land Mobile via Satellite (LMvS10)* report finds a significant revenue migration underway from narrowband to broadband applications. Though currently dominated by narrowband services, connected vehicles and High Throughput Satellite (HTS) Comms on the Pause (COTP) services are positioned as the fastest growing satellite land mobile

sector markets through the decade. In the short-term, COTP growth takes the lead through Aid, NGO, disaster relief and energy market developments. In the longer-term, demand accelerates for connected vehicles - including cars, RVs, trucks, trains, buses and first responders.

## UPCOMING EVENTS

**IBC 2021**, September 9-12, Amsterdam, the Netherlands, [www.ibc.org](http://www.ibc.org)

**Satellite Innovation 2022**, September 11-12, Mountain View, CA, USA, <https://2022.satelliteinnovation.com/>

**2022 Milsat Symposium**, September 13-14, Mountain View, CA, USA, <https://2021.milsatshow.com/>

**World Satellite Business Week**, September 12-16, Paris, France, <http://www.satellite-business.com/>

**IAC 2022**, September 18-22, Paris, France, <https://iac2022.org/>

**APSCC 2022 Satellite Conference & Exhibition (APSCC 2022)**, October 18-20, Seoul, Korea, <https://apscsat.com/>

**Global MilSatCom**, November 8-10, London, UK, <https://www.smi-online.co.uk/defence/uk/conference/global-milsatcom>

**Asia-Pacific Regional Space Agency Forum (APRSF-28)**, November 15-18, Hanoi, Vietnam, <https://www.aprsaf.org/>

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### **About APSCC**

*APSCC is a non-profit, international organization representing all sectors of satellite and space-related industries. The aim of the organization is to exchange views and ideas on satellite technologies, systems, policies and outer space activities in general along with satellite communications including broadcasting for the betterment of the Asia-Pacific region. Conferences, forums, workshops, and exhibitions are organized through regional coordination with its members in order to promote new services and businesses via satellite as well as outer space activities. APSCC membership is open to any government body, public or private organization, association, or corporation that is involved in satellite services, risk management or associate fields such as data-casting, informatics, multi-media, telecommunications and other outer-space related activities with interests in the Asia-Pacific region. More information is available at [www.apsc.or.kr](http://www.apsc.or.kr).*