APSCC Monthly e-Newsletter
June 2023

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.apscc.or.kr. To unsubscribe, send an email to info@apscc.or.kr with a title "Unsubscribe."

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

INSIDE APSCC

APSCC 2023 Satellite Conference & Exhibition (APSCC 2023), October 10-12, Kuala Lumpur
APSCC Satellite Conference and Exhibition, the largest three-day annual gathering of the Asia Pacific satellite and space community, is your defining platform that brings the industry together for market insight, striking partnerships and concluding business deals. This year the APSCC 2023 Satellite Conference and Exhibition will be heading to KL, Malaysia - Reconnect, communicate, and collaborate on the industry's challenges and opportunities that lie ahead! Regarding sponsorship, exhibition and speaking opportunity, please contact the APSCC 2023 team at apscc2023@apscc.or.kr

NT Satellite Solutions Joins APSCC
NT Satellite Solutions is a business unit of National Telecom PLC, focused on satellite technology and business. Our mission is to enhance the efficiency of telecommunication and digital infrastructure to support government policies and driven ecosystem growth through profitable operations in competitive markets. NT Satellite Solutions offers comprehensive communication services aimed at promoting sustainable development of the digital economy and society. Visit https://www.ntsatellite.net/ for more information.

SATELLITE BUSINESS

INTEGRASYS Announces New Office in London
May 30, 2023 – INTEGRASYS, a leading provider of network automation technologies, is thrilled to announce the opening of its new 5GNTN center of excellence and the new office in London, UK. The strategically located office at, Chiswick High Street signifies an important milestone in INTEGRASYS' expansion plans and highlights the company's commitment to serving its growing customer base in the region. With an unwavering dedication to developing cutting-edge network automation technologies for Satcom, terrestrial and direct-to-handset, INTEGRASYS has emerged as a trailblazer in the industry. The opening of the London office further strengthens the company's global presence and enables closer collaboration with existing and prospective clients in the United Kingdom especially Government and accelerates new product developments to serve Integrasys global customers.

Lindblad Expeditions and Speedcast Ink Contract Extension for Expanded Connectivity Solution across Global Fleet
May 30, 2023 – Speedcast, a leading communications and IT services provider, today announced it is delivering expanded connectivity capabilities for Lindblad Expeditions, the recognized global leader and pioneer of modern expedition travel, as part of a multi-year contract extension. In a comprehensive service upgrade, Speedcast is providing GEO and Starlink LEO satellite services, as well as cellular near-shore wireless, L-band satellite and Speedcast's upgraded SD-WAN and SIGMA

solutions, to ensure an unprecedented onboard connectivity experience for Lindblad's guests and crew. With the addition of Starlink services, Speedcast is installing two maritime, flat-panel, high-performance antennas onboard many of Lindblad's ships, expected to be completed by the end of the year. The key to the enhanced quality of user experience is attributed to the integration of Starlink services into Speedcast's Unified Global Platform (UGP), which provides guaranteed connectivity levels that Starlink's high-bandwidth, internet-class service cannot ensure as a stand-alone service.

ClassNK Innovation Endorsement Granted for Inmarsat's Fleet Secure Endpoint

May 26, 2023 – ClassNK has granted its Innovation Endorsement to Inmarsat's Fleet Secure Endpoint, verifying the solution's fulfilment with functional elements that support effective cyber risk management as set out in the International Maritime Organization (IMO) 2021 regulation. The application for certification under the Innovation Endorsement scheme was submitted by Inmarsat's partner JSAT MOBILE Communications. Fleet Secure Endpoint is part of Inmarsat's Fleet Secure suite of vessel network protection solution, developed in partnership with Port-IT. FSE, achieves cyber security across the five core functions of the NIST Framework on which the IMO 2021 regulation is based: Identify, Protect, Detect, Respond, and Recover. It includes Security, Risk Assessment and Organisational Security Management Overview (OSMO) reports in format covering the IMO 2021 elements. Recent updates to Fleet Secure Endpoint include the addition of a Cost Savings feature to the OSMO Report, allowing users to visualise the money saved by protecting the network from infection and avoiding subsequent IT maintenance costs. For example, one shipowner was able to see savings of approximately US$275,000 in six months having implemented Fleet Secure Endpoint across its 200-vessel fleet. Based on these figures, return on investment can be achieved in a matter of weeks.

Viasat Acquisition of Inmarsat Proceeds to Close

May 25, 2023 – Viasat Inc., a global communications company, and Inmarsat, a leading provider of global mobile satellite communications services, today announced that the European Commission (EC) unconditionally approved Viasat's acquisition of Inmarsat. This follows the recent U.K. Competition & Markets Authority's clearance on May 9, 2023, and that of the U.S. Federal Communications Commission on May 19, 2023. The two companies will now work to expedite completion of the transaction, which is expected to close by the end of this month.

Liquid Dataport and Viasat Sign MoU to Improve Connectivity Services for Businesses and Consumers in West Africa

May 25, 2023 – Liquid Dataport, a business of Liquid Intelligent Technologies (Liquid), a pan-African technology group, and Viasat announced the signing of a Memorandum of Understanding (MOU) to engage in business-to-business (B2B) and business-to-consumer (B2C) service opportunities across West Africa. Liquid and Viasat intend to focus on the potential commercialisation and distribution of satellite broadband to reduce internet connectivity costs and improve data connections across the region. Under the terms of the MOU, Liquid Dataport will offer Viasat's connectivity services working through local partners. As a part of Viasat's expansion into Africa, the Company's next-generation ViaSat-3 satellite constellation is expected to deliver connectivity services to Europe, The Middle East, and Africa (EMEA).

Australia & New Zealand Signs $187.4m AUD Contract with Inmarsat for New SouthPAN Satellite Service

May 25, 2023 – Every major industry across Australia and New Zealand, from transport and construction to resources and agriculture, will gain positioning and navigation benefits from the Southern Positioning Augmentation Network's (SouthPAN) new satellite service. With the signing of a contract with Inmarsat Australia for the new service on one of Inmarsat's three new I-8 satellites, SouthPAN partners Geoscience Australia and Toitū te Whenua Land Information New Zealand are

one step closer to world-class satellite positioning for the southern hemisphere. SouthPAN provides accurate, reliable and instant positioning services across all of Australia and New Zealand's land and maritime zones without the need for mobile phone or internet coverage. It will improve positioning accuracy to as little as 10 centimetres. Early Open Services have been available since September 2022. Signals will begin broadcasting services from the Inmarsat-8 satellite which will cover the Asia Pacific region, commencing from 2027. The satellites will provide redundancy and resilience in SouthPAN to ensure continuous broadcast of signals, enabling the development and use of critical applications relying on its highly accurate positioning. An additional satellite service will also be procured. These satellites will also be a critical part of a safety-of-life-certified SouthPAN for aviation and other applications, scheduled for 2028. These services will be accessed or used by end users engaged in operations where life could be at risk, like landing an aircraft.

Cyber Security Boost as CyberHive Joins Inmarsat's ELEVATE Programme

May 24, 2023 – CyberHive, a leading cyber security software company, today announced it has joined Inmarsat's ELEVATE programme. The partnership enables enhanced protection from cyber threats, which the UK Government estimates costs the UK economy £27 billion annually. ELEVATE is a development programme, ecosystem, and marketplace for providers of software, hardware and solutions, and original equipment manufacturers (OEMs) in commercial land markets. As a new ELEVATE partner, CyberHive will provide customers with a reliable, future-proofed threat protection product to significantly heighten cyber security across connected IoT devices. As an ELEVATE partner, CyberHive will benefit from Inmarsat's global L-band network ELERA, the leading satellite network for the Internet of Things (IoT). This will help the company reach more customers with quantum-safe cryptographic solutions for secure device communication.

Azercosmos and Intelsat's Collaboration Opens the Way to Unreachable Places in the African Region

May 23, 2023 – Azercosmos and the global satellite operator Intelsat have signed a commercial agreement on the joint implementation of long-term projects in the West African region. According to the agreement, Intelsat will provide Cellular Backhaul (CBH) services to its customers in the West African region, which has 17 countries and a population of more than 430 million, by using the resources of the Azerspace-2 satellite. Using the capabilities of the Azerspace-2 satellite, Intelsat will further expand its service geography in the African region. The coverage of Azerspace-2 satellite is very favorable for mobile network and telecommunication services even in inaccessible areas of Africa.

Rural Development Project to Depend on neXat for Network Management

May 23, 2024 – Better rural connectivity in parts of South America will be delivered thanks to the creation of new internet networks that will use a one-of-a-kind cloud-based platform for their management and monitoring. The neXat platform will give VNET, an innovative Guyanese company that specialises in providing internet access to rural locations, tools to manage and monitor its network, billing and online payments, and traffic routing and shaping. The OSS/BSS platform will help improve the efficiency of VNET's operations, affording the company more time to better serve sectors including education, health, mining and oil & gas with high-performing and tailored networks. neXat can also offer VNET a hotspot solution that gives remote Wi-Fi access anywhere, at any time, and from any device with Wi-Fi connectivity, offering added value to standard services. VNET also specialises in connectivity for disaster and emergency recovery scenarios, and oil & gas and enterprise customers. The two companies are exploring the option of extending the use of the platform to these sectors, utilizing the unique and versatile management interface.

Marlink Enhances Hybrid Digital Network Solution for Polembros Shipping with Starlink

May 23, 2023 – Marlink, the smart network and digital solutions company, will install the Starlink LEO service for Athens-based ship manager Polembros Shipping. A Marlink partner for many years,

Polembros will extend its digital toolset to include the new LEO service on a trial basis to support crew welfare and remote technology. Polembros is already a user of Marlink's hybrid network, including guaranteed throughput VSAT services across its fleet. The deployment of the new service will bring much faster throughput and lower latency to the company's business and crew communications, enabling the deployment of digital solutions and crew welfare services.

Thuraya and eSAT Global Announce Satellite IoT Breakthrough with Low-Latency Messaging

May 23, 2023 – In a pivotal breakthrough in the on-going efforts to create a favorable framework for the next-generation Internet of Things (IoT) connectivity, Thuraya, the mobility arm of the UAE's flagship satellite solutions provider, Yahsat and eSAT Global announced that they have successfully completed an over-the-air demonstration of low-latency, direct-to-satellite IoT texting system by transmitting low-power IoT messages over Thuraya's satellite network (Thuraya-2 Satellite "T2"). This milestone is the first of several milestones that Yahsat expects to achieve via its investment in eSAT Global and Thuraya's agreement with the company to develop a next-generation IoT platform. eSAT was able to send and receive messages of lengths of up to 320 characters over the T2 satellite with less transmission power (< 200 microwatts) than that used by a typical car key fob. This means that only minimal power is needed to transmit long-distance messages. The demo showed stable operations for a range of configurations, including those with a fingernail-sized antenna.

Kratos and Clearbox Systems Partner to Develop Advanced Dynamic Satellite Ground and Space Domain Awareness Solutions

May 22, 2023 – Kratos Defense & Security Solutions, Inc., a technology company in Defense, National Security and Global Markets, and Clearbox Systems Pty Ltd, the Australian company that uses technology to provide better approaches and techniques for the operations and management of communications networks and the electromagnetic spectrum, have signed a collaboration agreement to co-develop and co-market solutions to advance the capabilities of software-defined satellite ground systems. As part of the agreement, Clearbox will integrate its flagship Foresight product to run seamlessly on Kratos' OpenSpace® dynamic ground platform. Foresight provides a unified user interface across essential ground functions including equipment monitoring and control, spectrum monitoring and network management. Foresight can be deployed on physical, virtual or cloud infrastructure and, being web-based, can be accessed by users on any workstations connected on the network. It is trusted by militaries, governments, satellite operators and commercial users large and small in Australia and globally in deployments ranging across SATCOM, ISREW, Crypto, OSS and Space Domain Awareness (SDA).

ABS Announces Expansion of Services in EMEA Region at Cyta's Makarios Teleport in Cyprus

May 21, 2023 – ABS announces the expansion of its services and continued growth in the EMEA region with the support of its new teleport partner in Cyprus. ABS' partner, Cyta, offers satellite access and international extensions globally through a resilient broadband network with integrated security, flexibility and scalability. ABS has successfully migrated its Telemetry, Tracking and Control (TT&C), and monitoring services from its Bahrain teleport to the Makarios teleport in Cyprus. The facility is a Tier-4 certified Teleport by the World Teleport Association (WTA), with a prime geographical location offering optimal conditions for satellite communications and unrestricted access to frequencies in both satellite and terrestrial bands. In addition to TT&C services, ABS offers a diverse range of satellite services to various market segments such as broadcasting, telcos/MNOs, oil and gas, maritime and government verticals. ABS provides reliable and secure connectivity to customers worldwide through its advanced technology and experienced team. ABS remains committed to delivering innovative satellite services and solutions to meet the evolving needs of its customers.

Inmarsat Announces FreeWave as Partner for Global IOT

May 18, 2023 – Inmarsat announced FreeWave Technologies, a leading Internet of Things (IoT)

solutions provider, as a Distribution Partner for its L-band satellite IoT services. The partnership, signed at this week's IoT Tech Expo in Santa Clara, California, will focus on the integration of Inmarsat's IsatData Pro (IDP) service in FreeWave's end-to-end IoT solutions, initially with standalone hardware terminals, with a view to integrating IDP core modules into IoT hardware and assets in the future. IDP is a two-way, real-time, non-IP messaging service that is used globally to connect mission-critical assets in remote locations where regular terrestrial connectivity is limited or non-existent. IDP is enabled by Inmarsat's ELERA geostationary L-band satellite network, with ultra-reliable performance and robust network security. The agreement will provide FreeWave's customers with reliable, cost-effective and scalable connectivity solutions to meet their mission critical IoT demands across global industries, including agriculture, oil and gas, and utilities. The new relationship will also support the IoT uses of businesses operating in the environmental tracking space – including earthquake and flooding monitoring firms.

Arabsat Announces Successful Testing for Kymeta™ Terminals

May 17, 2023 – Arabsat, one of the leading satellite service providers in the Arab world, has officially announced its completion of testing and approval procedures for the Kymetau8 terminal to operate on its Ku-band satellites. The testing procedures were successfully finalized at the Arabsat Dirab Station located outside of Riyadh. With the completion of testing for the Kymeta u8 terminal, Arabsat has taken a step toward extending and enhancing its coverage area across the MENA, EMENA, Northwest Africa and South African regions at a range of geostationary orbital longitudes. Arabsat's approval of the terminal to operate on its satellite network is a strategic measure to provide a variety of broadcast, telecommunications, and broadband services over an extended coverage range. Built specifically for mobility purposes, the Kymeta u8 terminal, which was first announced for commercial usage in late 2020, is a flat-panel Earth Station in Motion (ESIM) platform. Backed by both U.S. and international patents, the Kymeta u8 terminal addresses the need for low-power, low-cost and high-throughput communication systems.

neXat Expands Further East with KT SAT Partnership

May 17, 2023 – neXat has entered a partnership with KT SAT to offer the South Korean satellite operator a full suite of managed services and gain access to its coverage in Asia. KT SAT – a subsidiary of KT Corporation and one of South Korea's largest telecommunications companies – will use the neXat platform to increase its portfolio of services. This includes vouchers and other quota-based services –such as Fair Use and Fair Access Policy (FAP and FUP) – that cannot be natively offered by an iDirect hub. This allows KT SAT to add new products to their existing portfolio of services. neXat will benefit from the addition of another key satellite operator to its platform, expanding the coverage of capacity and portfolio of satellite services, that can be accessed by its partners. The partnership will use the Koreasat-5A satellite and iDirect technology on the Ku-band.

MEASAT Connects Malaysian Armed Forces Personnel through High-Speed Satellite Broadband

May 17, 2023 – MEASAT Global Berhad ("MEASAT") – Malaysia's Rural Broadband Service Provider will be providing CONNECTme NOW satellite broadband services for free under its Corporate Social Responsibility ("CSR") programme to frontline Malaysian Armed Forces personnel serving at selected remote border checkpoint posts located across Malaysia. CONNECTme NOW is Malaysia's leading prepaid satellite broadband WiFi Hotspot service by MEASAT. It provides community-focused satellite broadband services to realise national broadband aspirations. Today, CONNECTme NOW provides 400,000 broadband connections within unconnected communities residing outside of 4G or terrestrial coverage areas nationwide. MEASAT's ability to deliver High-Speed Satellite Broadband nationwide makes it a strategic partner to support the Government of Malaysia's aspirations to achieve 100% internet coverage in populated areas by 2025.

SCC, OneWeb, and Northwestel Partner on Ten-year Satellite Network Site to Enhance Connectivity across Northern Canada

May 17, 2023 – Swedish Space Corporation (SSC) has signed a ten-year contract with the low Earth orbit satellite communications company OneWeb to build and manage a new OneWeb Satellite Network Portal (SNP) in Yellowknife, NW, Canada. This new SNP will deliver increased bandwidth, performance, and resiliency to all OneWeb services active today across Northern Canada. The new site will be on the traditional territory of the Yellowknives Dene First Nation and the Det'on Cho Environmental will be providing local guidance on environmental assessments and permitting. Northern Canada's telecommunications leader Northwestel's extensive northern fibre network will provide the ground connectivity to support the SNP. Construction of the SNP is underway in Yellowknife's new Engle Business District. It will serve as a gateway for OneWeb satellite broadband internet in Canada with 27 antenna bases once completed by Q4 2023. SSC will oversee the project, including the development of the site infrastructure to support the antennas, and once the site is operating, SSC will provide ongoing maintenance and on-site support for a period of ten years. The construction and maintenance of the SNP will be a significant project and represents a sizeable investment in the region. The telecommunications partners have worked closely with local government leadership and business to ensure the project and subsequent connectivity will contribute significantly to the City of Yellowknife and the broader Territory.

Arabsat and Loft Orbital Partner to Provide LEO Satellite Infrastructure

May 16, 2023 – Arabsat announced the signing of a Memorandum of Understanding (MOU) with Loft Orbital (Loft) to collaborate on the mission definition for a future infrastructure in low earth orbit (LEO). Both companies will work together to create the infrastructure that will cater to the needs of various sectors of Arabsat's customers. Arabsat plans to utilize Loft's space infrastructure platform to provide earth observation services to all 22 member countries of the Arab League. This will allow for the development of reliable applications across agriculture, transport and logistics, borders and maritime monitoring, and environmental protection. Loft will fly these missions on their turnkey satellite platform called Longbow, using Cockpit, a mission-agnostic satellite operations software.

Speedcast Expands Presence in Saudi Arabia

May 16, 2023 – Speedcast, a leading communications and IT services provider, announced today that it has significantly expanded its presence in the Kingdom of Saudi Arabia, as major changes to the energy market expand opportunities for producers in the Middle East. Speedcast has long delivered communications services to customers through in-country partners. With requirements in Saudi Arabia and across the region increasing exponentially, Speedcast has made significant progress in this important market by securing its Internet Service Provider license from the CST. The company now intends to supplement this with additional licenses and permits, which will enable the operations and provisioning of services inside the Kingdom. Speedcast's new in-country teleport facility, which will include office and warehouse space, is under construction to host an iDirect hub, and the company is staffing up management and field services personnel to provide installation, operations and maintenance country-wide.

OneWeb and iSAT Africa Pioneer New Solutions to Bridge the Digital Divide in Africa

May 15, 2023 – OneWeb and iSAT Africa LTD ahave signed a Distribution Partnership Agreement to bring high-speed, low-latency broadband connectivity across Africa. The partnership brings together the innovative satellite technology of OneWeb and the extensive experience of iSAT Africa in rural connectivity, fixed and mobile satellite services, enterprise, and broadcasting solutions in Africa. As a result, iSAT Africa will drive a shared objective of connecting the unconnected and serving the underserved communities of Africa, which in turn will help iSAT Africa grow the regional economy, improve access to education and health care, and give people and communities across the continent more power by providing reliable, high-speed broadband connection. As a leading and trusted internet services provider, iSAT Africa will work closely with OneWeb to deliver reliable, high-speed, low latency broadband connectivity throughout Central, Western, and Eastern Africa markets in the near future. With OneWeb having recently completed its global constellation, under this DPA

OneWeb will continue to facilitate global connectivity, reaching areas that had previously been underserved and too remote for reliable connectivity. iSAT Africa joins the network of global OneWeb partners looking to offer connectivity to all.

Gogo Global LEO Broadband Service Gains Momentum with Significant Program Achievements

May 15, 2023 – Gogo Business Aviation's global Low Earth Orbit (LEO) broadband service has gained momentum with significant program achievements by Gogo and strategic partners, OneWeb and Hughes Network Systems. Gogo's LEO satellite network provider, OneWeb, completed the launch of its LEO constellation with more than 588 satellites in orbit at the end of March, and is expected to be operational and aero-ready in the first quarter of 2024, with Gogo's global broadband service coming online in the second half of 2024. Gogo and its antenna provider, Hughes, completed preliminary design review of Gogo's exclusive electronically steerable antenna (ESA) assembly in February, bringing Gogo one step closer to realizing its vision of delivering an order-of-magnitude improvement in inflight connectivity performance for all sizes of aircraft around the globe, many of which have no viable broadband solution today.

SES and TESAT to Develop Payload for Europe's First Quantum Cryptography LEO Satellite System EAGLE-1

May 11, 2023 – EAGLE-1 consortium lead SES announces a new key partner, TESAT, responsible for developing and integrating the Quantum Key Distribution (QKD) payload for the EAGLE-1 satellite. The SES and TESAT partnership is aimed at achieving the next key milestone in building and implementing Europe's pioneering quantum secure communications initiative EAGLE-1. Supported by the European Space Agency (ESA) and the European Commission, EAGLE-1 is a quantum key system integrating both space and ground segments that will deliver secure transmission of encryption keys across geographically dispersed areas and connect EU's national quantum communications infrastructures for truly sovereign networks. Consortium member and Europe's leading laser communication technology company TESAT will manufacture the QKD payload comprising the Scalable Optical Terminal SCOT80 to establish a secure optical link from space to ground, as well as the QKD module of the satellite. The technology integrated into the EAGLE-1 system's payload will include built-in redundancy and is specifically designed to be associated with the satellite communications and data transmission for such areas as government, telco operators, cloud providers and banking, to add guaranteed security of the cryptographic applications.

Hispasat and Intelsat Expand Their Strategic Agreement to Provide Inflight Connectivity through Amazonas Nexus

May 11, 2023 – Hispasat and Intelsat, the leading global provider of broadband connectivity products and services for aviation, have reached an agreement to expand and extend the agreement reached in 2019 to lease the capacity on Hispasat's latest satellite, Amazonas Nexus. Specifically, this new partnership includes long-term leasing of the entire satellite capacity available over the United States and Brazil, as well as a significant part of the capacity of the Amazonas Nexus over the North Atlantic corridor. Thanks to this, Intelsat will offer inglight connectivity services in these areas with a high volume of air traffic, as well as corporate and cellular backhaul services. The Amazonas Nexus is a high throughput satellite, and the innovative architecture will serve to replace the Amazonas 2 in the 61º West orbital position. The new satellite, which was launched on February 6 from Cape Canaveral, will have a payload specifically dedicated to connectivity in mobility environments (planes and ships), in addition to other applications such as corporate communications and cellular backhaul rollouts. Furthermore, it will a launch a state-of-the-art Digital Transparent Processor, a technological innovation that will substantially increase the satellite's flexibility and make it easier to adapt to the changes that may occur in demand.

Network Innovations Signs MoU with Rivada Space Networks to Support Government and Enterprise Connectivity

May 10, 2023 – Network Innovations, (NI) and Rivada Space Networks (RSN) have announced the signing of a MoU to work together to bring innovative connectivity solutions to the Government and Enterprise markets. Network Innovations' initial cooperation with RSN will include the formation of an advisory board to exchange information on technical support and explore joint marketing and promotional initiatives. Network Innovations aims to become a key reseller of RSN's unique connectivity for the Government and Enterprise sectors.

Sidus Space Expands Global Ground Site Network with New ATLAS Space Operations Contract

May 10, 2023 – Sidus Space, a Space and Defense-as-a-Service satellite company focused on mission-critical hardware manufacturing; multi-disciplinary engineering services; satellite design, production, launch planning, mission operations; and in-orbit support has selected ATLAS Space Operations (ATLAS) to expand ground station services. The agreement is set to significantly increase the global network of ground stations for the LizzieSat™ constellation and further solidify Sidus Space's position as a leader in Space and Defense-as-a-Service solutions. ATLAS Space Operations provides Ground Software as a Service™ (GSaaS) to manage satellite communications through a global antenna network. ATLAS utilizes Freedom™ Software along with their global federated antenna network, to provide end-to-end monitoring of all assets.

SKY Perfect JSAT and KSAT to Jointly Provide Ground Station Services to JAXA

May 9, 2023 – By entering into a long-term agreement, SKY Perfect JSAT and KSAT will establish new earth stations globally to provide Near-Earth Tracking and Control Services to JAXA and other Japanese governmental organizations. SKY Perfect JSAT Corporation, Asia's largest satellite operator, and Kongsberg Satellite Services AS, KSAT, the world-leading ground network operator and service provider, have made an Agreement for providing Near-Earth Tracking and Control Services. In March 2023, SKY Perfect JSAT was selected by the Japan Aerospace Exploration Agency, JAXA, as a service provider of the Near-Earth Tracking and Control Network. Through this cooperation between KSAT and SKY Perfect JSAT, we will establish new ground stations globally to provide Near-Earth Tracking and Control Services to JAXA and other Japanese governmental organizations. SKY Perfect JSAT and KSAT will implement next generation ground network technologies for the benefit of JAXA's seamless operations. KSAT has developed reliable, scalable and optimized solutions fully integrated into our operations of the global ground network. This offers an innovative, easy-to-use software-based Global Ground Network. Our implementation provides a trusted architecture with integrated redundancy and resiliency. The standardized network is part of KSAT's more than 270 antennas at 27 locations around the world.

Supernal and Inmarsat Partner on Advanced Air Mobility Vehicle connectivity

May 9, 2023 – Supernal and Inmarsat announced a partnership to define the application of satellite connectivity in Advanced Air Mobility (AAM). Together, the companies will conduct testing and data sharing to optimise hardware and network systems, which will lead to the safe and efficient integration of electric vertical takeoff and landing (eVTOL) vehicles into the airspace. During vehicle testing, Supernal will connect its eVTOL to Inmarsat's Velaris SATCOM service to assess capabilities such as aircraft state and telemetry monitoring. Velaris builds on Inmarsat's vast three-decade experience in air traffic management communications and is powered by its high resilience ELERA global satellite communications network.

MEASAT Rolls out Portable Satellite Service with Mont Aero

May 8, 2023 – MEASAT Global Berhad ("MEASAT") – Malaysia's leading satellite solutions provider, has deployed a portable, Communications-on-the-Pause ("COTP") service for Mont Aero Sdn Bhd ("Mont Aero"), a technology solutions company that specialises in the oil and gas and maritime industries. The portable COTP service is a quick to deploy mobile satellite broadband solution that enables users to utilise high-speed broadband where broadband coverage is lacking. The lightweight, transportable, electronically steered antenna empowers field engineers to perform complex tasks

that require live communication or prompt exchange of information via MEASAT's high-speed broadband connectivity, without having to painstakingly install antennas in each location. MEASAT's Mobility Managed Bandwidth Services are available across the entire fleet of MEASAT satellites and are suitable for a variety of applications in areas without telecommunications coverage. Customers can maintain focus on their core business activities whilst leveraging on MEASAT's expertise to manage connectivity solutions – improving operation efficiencies and lowering investment risks.

Comtech Welcomes Aarna Networks as New EVOKE Technology Partner

May 4, 2023 – Comtech announced that Aarna Networks, a leading provider of network automation and orchestration solutions, will become the Company's latest publicly revealed EVOKE technology partner. As the fourth publicly announced EVOKE technology partner, Aarna Networks will work with Comtech to create new integrated cloud-native solutions for emerging commercial and government use cases. By combining Aarna Networks technologies with Comtech's Dynamic Cloud Platform (DCP), the companies will enable customers to easily add and manage a variety of open architecture cloud-based applications across private, hybrid, and public networks, in both terrestrial and non-terrestrial environments. Comtech's DCP is designed to be infrastructure, cloud, and application agnostic. Comtech's DCP also unlocks the availability of new third-party cloud-based applications across current and future computing environments. EVOKE is Comtech's Innovation Foundry, which is led by the company's Chief Growth Officer, Anirban Chakraborty, and is dedicated to creating and accelerating transformational changes across the global technology landscape. EVOKE engages with customers, partners, and suppliers to push the boundaries of technologies that will lay the foundation of connectivity as well as shape future societies and ecosystems.

OneWeb and NOW Corp to Boost Connectivity for Critical Infrastructure in the Philippines

May 3, 2023 – OneWeb and NOW Corporation, a publicly listed firm in the Philippine Stock Exchange with investments in telecom, media, and technology, announce they have signed a Memorandum of Understanding (MoU) to bring high-speed, low-latency broadband connectivity to the Philippines. The partnership combines the innovative satellite technology of OneWeb with NOW Corp's existing broadband service and strong local presence especially in the enterprise market. OneWeb's LEO satellites will provide seamless connectivity, enabling NOW to offer a wide range of enhanced broadband services to sectors including government, aviation, maritime, military, energy, healthcare and banking. With an eye toward serving such critical infrastructure, NOW will work closely with OneWeb in order to deliver stable, high-speed, low latency broadband connectivity with committed information rates (CIR). Under this MoU, OneWeb will bring to enterprise, government, and other customers in the Philippines the connectivity solutions it offers in a swiftly growing number of markets. With its constellation of LEO satellites now fully built out, OneWeb is set to complete its rollout of global coverage this year. By tapping into the power of this global network, NOW will be able to extend services into hard-to-reach areas and enhance the speed, latency, and resiliency of its existing offerings.

Profen to Deliver High Performance Networks across Türkiye and beyond with SES's O3b mPOWER System

May 3, 2023 – The energy companies, government agencies, the telco companies and humanitarian aid organisations in Türkiye, the Middle East and Africa will soon be able to access high-performance, low-latency satellite-based connectivity services, Profen and SES announced today. The combined capacity and infrastructure agreements will see Profen, the global high-tech solutions company, deploy SES's second-generation medium earth orbit (MEO) system – O3b mPOWER – and build a gateway in Türkiye to jointly deliver high-performance connectivity to serve identified market opportunities of more than 10 Gbps. By installing the O3b mPOWER gateway at the core of its networks, Profen's customers in industries such as telecommunications, energy and humanitarian aid organisations can roll-out more secure networks and minimise latency by reducing the required hops between endpoints. In addition, Profen will be providing a range of services such as mobile backhaul,

disaster recovery and private 5G, enabling local companies and neighboring ones in Europe, the Middle East, Africa and central Asia to enjoy the services that are backed by robust service level agreements.

SES O3b mPOWER to Offer Mission Microwave Ka-Band Block Converters on User Terminals

May 3, 2023 – Mission Microwave Technologies, LLC, a manufacturer Gallium Nitride (GaN) based Solid State Power Amplifiers (SSPAs) and Block Upconverters (BUCs) has confirmed that SES has selected their 40-watt Ka-band BUC for use in high throughput customer user terminals for SES's second generation medium earth orbit (MEO) system — O3b mPOWER. The order follows several years of work between the companies to implement advanced solid state technologies into the O3b mPOWER system. With O3b mPOWER's industry's best throughput, predictable performance and high availability services, SES customers will be able to enjoy unrivalled performance networks and support their most critical operations and grow their revenue streams. The O3b mPOWER system can deliver connectivity services ranging from tens of megabits to multiple gigabits per second.

Advanced Satellite Data and Monitoring to Transform Disaster Response and Environmental Monitoring in Southeast Asia

May 2, 2023 – Enhanced disaster response, environmental monitoring, agricultural productivity and infrastructure planning has been made available to businesses in Thailand thanks to a new partnership announced between Tokyo-based SAR satellite data and solutions provider, Synspective Inc., andAsia's leading satellite operator and space technology service provider, Thaicom. Synspective and Thaicom will supply a joint solution to government, defense, agriculture, and finance sectors in Thailand that enhances disaster response, environmental monitoring, agricultural productivity, and infrastructure planning. The collaboration will combine Synspective's expertise in SAR technology and Thaicom's knowledge in the satellite and space technology in Thailand. Benefits of SAR technology include rapid assessment of the damage caused by natural disasters such as earthquakes, floods and landslides, to monitoring changes in the environment such as deforestation. SAR can also be used to monitor infrastructure, such as roads, bridges and buildings for damage and displacement, as well as monitoring agricultural land and crop growth.

European Space and Telecoms Players Sign Partnership Agreement to Bid for IRIS2 Constellation

May 2, 2023 – A group of European space and telecommunications players have come together to form a partnership to respond to the European Commission's call for tender related to the future European satellite constellation IRIS² (Infrastructure for Resilience, Interconnectivity and Security by Satellite). IRIS² aims to bring a new secure and resilient connectivity infrastructure to European governments, businesses and citizens. The open consortium will be governed by Airbus Defence and Space, Eutelsat, Hispasat, SES and Thales Alenia Space. The consortium will also rely on the core team of the following companies: Deutsche Telekom, OHB, Orange, Hisdesat, Telespazio, and Thales. Together, they will aim to create a state-of-the-art satellite constellation based on a multi-orbit architecture that would be interoperable with the terrestrial ecosystem. This partnership will set up an integrated best-in-class European space and telecoms team across these companies to leverage the expertise and capabilities in the field of secure satellite communications solutions.

Spire Global Launches a Space-Powered Weather Insights Platform for the Maritime Industry

May 2, 2023 – Spire Global, Inc., a leading global provider of space-based data, analytics and space services, announced the launch of its new Deep Navigation Analytics™ (DNA) Platform, a centralized, space-powered hub that delivers essential insights to maritime stakeholders through three layers: maritime weather data APIs, actionable intelligence APIs, decision support solutions and visualizations. The platform utilizes radio occultation (RO) data acquired by the Company's fully deployed satellite constellation and its proprietary weather forecasting model, which assimilates RO data to generate 15-day global weather forecasts, ensuring that users have access to the most up-to-date and comprehensive information available.

Gilat Receives Multimillion-Dollar Order for Expansion of Advanced Disaster Response Network in Asia

May 1, 2023 – Gilat Satellite Networks Ltd. announced that the company received a multimillion-dollar order for VSATs to be used to expand the rollout of an advanced disaster response network in Asia. Gilat's equipment supports the national initiative in its efforts to expand and strengthen disaster prevention and administration. The network is designed to enable highly secure, bandwidth-efficient voice services, video feeds and multicasts, emergency alerts, mobility services, and data services that support effective disaster response capabilities for governmental bodies, individuals, and first responders.

BROADCAST

Orby Elevate Selects EUTELSAT 117 West A for DTH TV Distribution across the US

May 26, 2023 – Eutelsat Communications announces that Orby Elevate has selected the EUTELSAT 117 West A satellite for the distribution of its first major mainstream English language Direct-to-Home (DTH) TV services in the United States. Orby Elevate offers a mix of secular and religious video services to US-based customers. Located at 116.8° West, EUTELSAT 117 West A features state-of-the-art technology providing hemi coverage in both C and Ku bands, as well as high-power regional coverage in Ku-band over North and South America. This will enable Orby Elevate to leverage EUTELSAT 117 West A's exceptional throughput over the US territory to launch its first major mainstream English language DTH bouquet in what is a very significant market in terms of audience size and consumer appetite.

SES Reaches 369 Million Homes Worldwide

May 10, 2023 – SES announced the results of its annual Satellite Monitor market research, a comprehensive survey that tracks satellite TV's reach across a wide range of global regions and industry metrics. SES now delivers more than 8,000 channels to a total of 369 million TV homes worldwide, an increase of three million over the previous year, confirming SES's position as a leading content connectivity provider in the media industry. The overall growth was driven primarily by increases in Europe (+6.3 million) and Africa (+3 million), with stabilization in Latin America and Asia-Pacific. The reach in North America (-5.4 million) continues to decline due to the 'cord cutting' trend and the continued expansion of fiber connectivity in the United States.

LAUNCH / SPACE

Arianespace to Launch Kompsat-6 with Vega C for Korea Aerospace Research Institute (KARI)

May 31, 2023 - Arianespace announced the signature of a launch contract for the Earth observation satellite Kompsat-6 that will be delivered to orbit by the European light launcher Vega C. Kompsat-6 will be launched from Europe's Spaceport, in French Guiana, as early as December 2024. Kompsat-6 is the second SAR (Synthetic Aperture Radar) imaging satellite developed by KARI. It will replace its predecessor, Kompsat-5, while deploying improved imaging radar performance. This Earth observation satellite will carry two payloads, the SAR instrument (X-Band Synthetic Aperture Radar) and the S-AIS (Satellite-Automatic Identification System). SAR payload is a high-resolution all-weather imager, which has applications in mapping, GIS, environment and disaster monitoring as well as management of oceans and land. The S-AIS payload is a maritime wireless system used to identify position, heading, destination and cargo of larger vessels with the main purpose of collision prevention between larger vessels and with additional applications in maritime traffic management. This new contract demonstrates the versatility and competitiveness of the new European light launcher Vega C.

Telesat Selects Space Flight Laboratory to Manufacture LEO 3 Demonstration Satellite

May 30, 2023 – Telesat announced a contract award to Space Flight Laboratory (SFL) of Toronto, Ontario to manufacture a Low Earth Orbit (LEO) demonstration satellite for Telesat. The demonstration satellite, named LEO 3, will provide continuity for customer and ecosystem vendor testing campaigns following the decommissioning of Telesat's Phase 1 LEO satellite. Once successfully launched and on-station, LEO 3 will operate under an existing ITU network filing for Telesat Lightspeed, the company's enterprise-class LEO constellation. SFL is developing LEO 3 on its popular DEFIANT microsatellite platform, a cost-effective design that supports demanding missions without sacrificing performance. The completed LEO 3 will be a compact microsatellite measuring 30x30x45 cm with a mass of 30 kg. More than a dozen DEFIANT satellites developed for SFL clients are now in orbit serving applications ranging from maritime ship tracking to radio frequency signal mapping. LEO 3 is nearing completion at SFL following a relatively aggressive development schedule. SFL has integrated the communications payload with the LEO 3 bus and successfully completed vibration and electromagnetic compatibility testing of the spacecraft. Additional tests are ongoing.

OneWeb Confirms Successful Deployment of 16 Satellites including Next-Generation JoeySat

May 20, 2023 – OneWeb confirmed the successful deployment of 16 satellites that will provide increased resilience and redundancy to the OneWeb constellation as the company progresses toward global services. Included in this key batch is JoeySat, a satellite that will test an innovative beam-hopping capability which will allow satellites to switch between different places on Earth and adjust the strength of the communications signals based on customer needs or demands, The launch marked OneWeb's fourth successful launch with SpaceX. The 16th satellite launched today is nicknamed JoeySat. Developed through the European Space Agency and UKSA Sunrise Partnership programme, JoeySat carries an innovative payload design which will demonstrate digital regenerative processing, electronically steered multi-beam arrays, and digital beamforming and beam-hopping technologies. These capabilities, planned for OneWeb's Gen 2 constellation, will offer more flexibility and capacity to customers, optimizing resources to manage real-time surges in commercial demand or to enable rapid responses to emergencies such as natural disasters. This new digital payload is developed in the UK by our Sunrise programme partner, Satixfy UK.

Iridium Adds to Constellation Resilience with Launch of Spare Satellites

May 20, 2023 – Iridium Communications Inc. announced today a key milestone in its long-term constellation resilience and redundancy planning, with the successful launch and deployment of five spare satellites. This launch brings the total number of spare Iridium® satellites on orbit to 14. In total, 81 next-generation Iridium satellites were built, and 80 of them have now been deployed. The Iridium constellation remains unique in the industry, featuring 66 operational crosslinked satellites, enabling truly global, weather-resilient connectivity everywhere on Earth. The satellites lifted off at 06:16 am PDT (13:16 UTC) on a SpaceX Falcon 9 rocket from Vandenberg Space Force Base (VSFB) in California. Shortly after deployment, each of the satellites successfully contacted engineers at Iridium's Satellite Network Operations Center (SNOC), in Virginia. Completed in February 2019, the upgraded Iridium constellation has proven to be an engine of innovation for the company and its partners. Recently, the company took a lead role in the burgeoning satellite direct-to-device movement, teaming up with Qualcomm Technologies Inc., to enable satellite SOS and two-way messaging in premium Android smartphones.

Inmarsat to Launch I-8 Satellites to Power L-band Network

May 19, 2023 – Inmarsat has announced that SWISSto12, one of Europe's fastest-growing aerospace providers, will develop its new eighth-generation of spacecraft. The three I-8 satellites will provide additional network resilience, securing the future of Inmarsat's global L-band safety services. Swissto12, headquartered in Switzerland, will use its HummingSat satellite platform – in conjunction with unique 3D-printing technologies and specialised Radio-Frequency (RF) and payload products – to develop and manufacture the geostationary satellites, which will launch by 2026. Just 1.5 cubic

metres in volume, the I-8's will use SWISSto12's innovative new class of spacecraft which has a form factor up to five times smaller than conventional geostationary satellites yet can still deliver critical safety services with certainty. The three I-8 satellites will continue to provide the extra layer of resilience to complement the existing constellation and Inmarsat's two I-6 generation satellites, which were launched in December 2021 and February 2023. In March 2023, Inmarsat announced the first, I-6 F1, had successfully completed testing with ground stations in Western Australia and has now started to provide Ka-band services for the fast-growing Asia Pacific region. The company will begin introducing its L-band capacity and transitioning services to the new satellite throughout 2023. The second, I-6 F2, which launched in February 2023, is expected to enter operational service over Europe, Africa, and much of the Americas in early 2024.

NASA Selects Blue Origin for Astronaut Mission to the Moon

May 19, 2023 – NASA has awarded a NextSTEP-2 Appendix P Sustaining Lunar Development (SLD) contract to Blue Origin. Blue Origin's National Team partners include Lockheed Martin, Draper, Boeing, Astrobotic, and Honeybee Robotics. Under this contract, Blue Origin and its National Team partners will develop and fly both a lunar lander that can make a precision landing anywhere on the Moon's surface and a cislunar transporter. These vehicles are powered by LOX-LH2. The high-specific impulse of LOX-LH2 provides a dramatic advantage for high-energy deep space missions. Nevertheless, lower performing but more easily storable propellants (such as hydrazine and nitrogen tetroxide as used on the Apollo lunar landers) have been favored for these missions because of the problematic boil-off of LOX-LH2 during their long mission timelines. Through this contract, we will move the state of the art forward by making high-performance LOX-LH2 a storable propellant combination. Under SLD, we will develop and fly solar-powered 20-degree Kelvin cryocoolers and the other technologies required to prevent LOX-LH2 boil-off. Future missions beyond the Moon, and enabling capabilities such as high-performance nuclear thermal propulsion, will benefit greatly from storable LH2. Blue Origin's architecture also prepares for that future day when lunar ice can be used to manufacture LOX and LH2 propellants on the Moon. Blue Origin and its partners are already at work and are excited to be on this journey with NASA.

Bayanat and Yahsat Announce an Ambitious Program to Broaden Commercial Opportunities across the UAE Space-Ecosystem

May 18, 2023 – Bayanat, a leading provider of AI-powered geospatial solutions, and Al Yah Satellite Communications Company PJSC (Yahsat) announced today a comprehensive Space Program aimed at building national satellite remote sensing and Earth Observation (EO) capabilities within the UAE to commercially address business opportunities in the local and global EO market. Bayanat's capabilities into the space sector positions the company to drive its growth strategy and become a prominent player in the industry. Bayanat's program aims to develop a constellation of at least five SAR low Earth orbit (LEO) satellites to provide a consistent data stream for end-to-end solutions for SAR applications. It will cover the entire value chain by leveraging the available synergies in Yahsat's upstream and midstream capabilities, including its leading satellite infrastructure as well as the wide spectrum of its rapidly growing satellite-enabled innovative solutions, and Bayanat's downstream capabilities such as advanced AI and data analytics and will significantly enhance Bayanat's commercial offerings by providing valuable geospatial insights to various industries in a timely and accurate manner.

Momentus Deploys Qosmosys Satellite and Starts Comprehensive On-Orbit Support of Caltech Hosted Payload

May 18, 2023 – Momentus Inc., a U.S. commercial space company that offers orbital transportation and in-space infrastructure services, has deployed the Qosmosys Zeus-1 payload from its Vigoride-5 Orbital Service Vehicle and is now providing comprehensive hosted payload support services for Caltech's Space-based Solar Power Project payload. The Qosmosys Zeus-1 payload was deployed in orbit on May 10, 2023. Effective May 15, 2023, Momentus is providing on-orbit support to Caltech,

including providing data, communication, commanding and telemetry, and resources for optimal picture taking and solar cell lighting. Momentus will also be performing thrusting maneuvers so Caltech can measure the behavior of their experiments. Caltech's Space Solar Power Demonstrator project onboard Momentus' Vigoride-5 spacecraft comprises three separate experiments.

A Consortium of Companies Led by Thales Alenia Space Signs Contract with Italian Space Agency for an In-Orbit Servicing Demonstration Mission

May 15, 2023 – Thales Alenia Space has won a €235 million contract from the Italian Space Agency (ASI) to design, develop and qualify a spacecraft for a dedicated In-Orbit Servicing (IOS) demonstration mission. Thales Alenia Space is leading a Temporary Grouping of Companies regrouping Leonardo, Telespazio, Avio and D-Orbit. The mission will be developed in the framework of the National Recovery and Resilience Plan (PNRR), with support from the Italian Space Agency. The demonstration mission will operate in low Earth orbit (LEO) and is set to be launched by 2026. A growing number of satellites are now circling the Earth to meet a wide range of requirements, from geolocation and connectivity, to weather forecasts, environmental monitoring and much more. Thales Alenia Space is therefore developing in-orbit servicing solutions to address the evolving needs of satellites in orbit.

Airbus Selects UK National Satellite Test Facility for SKYNET 6A Testing

May 11, 2023 – Airbus has selected the National Satellite Test Facility (NSTF) at Harwell in Oxfordshire to carry out the comprehensive test campaign on the UK Ministry of Defence's next generation secure communications satellite SKYNET 6A. The £116 million government-funded NSTF, operated by experts from the STFC RAL Space (Science and Technology Facilities Council), will carry out the SKYNET 6A test campaign, including electromagnetic compatibility, as well as acoustic and thermal vacuum testing, to replicate the harsh conditions of space. SKYNET 6A will be the first SKYNET milsatcom satellite to be entirely designed, built and tested in the UK. The programme involves a 500-strong team at Airbus and is being supported by more than 45 SMEs across the UK. This geostationary telecommunications satellite will provide secure communications services for the UK's armed forces around the world following its launch in 2025.

Sidus Space Selected by Airbus OneWeb Satellites to Manufacture Satellite Hardware

May 11, 2023 – Sidus Space, Inc., a leading provider of machined parts to the global space industry, today announced it has been selected by Airbus OneWeb Satellites, LLC (AOS) to design and build machined parts. The machined parts will be integrated into the portfolio of Arrow commercial small satellites manufactured by AOS. Airbus OneWeb Satellites LLC is a joint venture between Airbus and OneWeb. AOS manufactures satellites for the OneWeb commercial constellation and Airbus customers in Merritt Island, Florida. AOS is producing satellites for Airbus U.S. Space & Defense, Inc., in support of U.S. government programs. Sidus Space has been manufacturing satellite hardware for over a decade and has supported major U.S. government and Commercial Space programs including Artemis, xEVAS, Starliner, Dream Chaser, and the International Space Station.

Arianespace to Launch the First Active Debris Removal ClearSpace Mission with Vega C

May 9, 2023 – Arianespace and ClearSpace signed a launch contract for ClearSpace-1, the first active debris removal mission that will capture and deorbit a derelict space debris of 112 kg. The launch, scheduled starting as soon as the second-half of 2026, will use the European light launcher Vega C to release the spacecraft into a Low Earth/Sun-Synchronous drift orbit for commissioning and critical tests. The servicer spacecraft will then be raised to the client object for rendezvous, capture and subsequent deorbitation through an atmospheric reentry. The space debris object removed by this mission is the upper part of a Vespa (Vega Secondary Payload Adapter) left in a 'gradual disposal' orbit, in compliance with space debris mitigation regulations, during the second flight of a Vega launcher in 2013. Close in mass to a small satellite, the simple shape of this space debris will allow to demonstrate the technologies of the spacecraft and its quartet of robotic arms, thus opening the way

for more challenging missions with multiple captures per flight. In 2019, ESA selected ClearSpace from a field of more than a dozen candidates to lead the first mission to remove an ESA-owned item from orbit. Supported by ESA's new Space Safety programme, the mission is being procured as a service contract with a startup-led commercial consortium, to help establish a new market for in-orbit servicing, as well as debris removal.

Rocket Lab to Launch Small Satellite Swarm for NASA

May 9, 2023 – Rocket Lab USA, Inc., a global leader in launch services and space systems, today announced it has signed a deal to launch NASA's Starling mission, a multi-CubeSat mission to test and demonstrate autonomous swarm technologies, as well as automated space traffic management for groups of spacecraft in low-Earth orbit. The four Starling small satellites have been manifested on an Electron commercial rideshare mission scheduled for lift-off from Rocket Lab Launch Complex 1 in New Zealand in Q3 this year. Rocket Lab will deliver the satellites to space within three months of the contract signing. The Starling mission is designed to test technologies to enable future "swarm" missions. Spacecraft swarms refer to multiple spacecraft autonomously coordinating their activities to achieve certain goals. Starling will explore technologies for in-space network communications, onboard relative navigation between spacecraft, autonomous maneuver planning and execution, and distributed science autonomy.

Warpspace Partners with Australian Earth Observation Satellite Operator LatConnect60

May 8, 2023 – Warpspace announced that it has signed a strategic partnership agreement with LatConnect 60 Ltd. to create a mechanism to monitor carbon emissions from space efficiently and in very high resolution. LatConnect 60 Ltd. of Perth, Western Australia, is developing a constellation of satellites to measure carbon emission concentrations from space, with the sensitivity to pick up emission flow rates as low as 50kg/hr and higher. The first satellite is scheduled to be launched into low Earth orbit in the second half of 2025. Warpspace is developing a next-generation space communications network, "WarpHub InterSat," to promote "visualization" of the Earth. In this network, a data relay satellite placed in the medium Earth orbit, which satellites in this orbit have more visibility to the Earth's ground stations, serves as a "hub." The relay satellites receive data from the customer's satellite via optical lasers and transmit the data to the ground one after another. As a result, the customer can obtain a larger volume of data more quickly than with conventional communication methods. This system is expected to be especially useful when highly accurate data is needed as soon as possible, such as disaster prevention.

Rocket Lab Successfully Launches First Batch of TROPICS Satellites for NASA

May 8, 2023 – Rocket Lab USA, Inc. successfully completed the first of two dedicated Electron launches to deploy a constellation of tropical cyclone monitoring satellites for NASA. The 'Rocket Like a Hurricane' launch lifted-off on May 8 at 13:00 NZST (01:00 UTC) from Rocket Lab Launch Complex 1 on New Zealand's Mahia Peninsula deploying two of the four CubeSats that comprise the TROPICS constellation (Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats). TROPICS will monitor the formation and evolution of tropical cyclones, including hurricanes, and will provide rapidly updating observations of storm intensity. The constellation, which is part of NASA's Earth System Science Pathfinder Program, requires launch to 550 kilometers altitude and inclination of about 30 degrees. Each pair of CubeSats must be launched to two specific orbital planes that are equally spaced 180 degrees opposite to maximize the temporal resolution. With the first batch of TROPICS CubeSats now in orbit, the second launch, called 'Coming to a Storm Near You,' is expected to launch on another Electron rocket in approximately two weeks from Launch Complex 1.

Momentus Signs Contract to Carry Hosted Payload for Hello Space

May 3, 2023 – Momentus Inc., a U.S. commercial space company that offers orbital transportation and in-space infrastructure services, has signed an agreement with Hello Space, an internet of things

(IoT) through satellite tech company, to carry a hosted payload of a demo deployer carrying four pocketqube satellites on the Vigoride-7 mission targeted to launch on the SpaceX Transporter-9 mission no earlier than October 2023. Hello Space is a satellite IoT service provider company capable of creating hardware and software for 'pocketqube' satellites that measure 10cm x 5cm x 5cm in size. The company is already a part of the Lora-Alliance network, a global alliance working toward creating a global standard for low-power, long-range, very wide-area IoT networks. The company's deployer, named "Hello Pod" launching with Momentus, is a test product before full-scale manufacturing operations begin. The deployer will carry four pocketqubes. These pocketqube satellites mark the first tranche of an 80-satellite constellation set by Hello Space.

ViaSat-3 Americas Successfully Launched

May 1, 2023 – Viasat Inc. announced the successful launch of ViaSat-3 Americas aboard a SpaceX Falcon Heavy from Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center in Florida. ViaSat-3 lifted off yesterday at 8:26 pm EDT, and approximately four hours and thirty two minutes after liftoff, the satellite separated from the launch vehicle. First signals from the satellite were acquired approximately 15 minutes later through a ground station in South Korea. In the coming days, ViaSat-3 will deploy its solar arrays and drift to its final orbital location. Viasat expects it will take less than three weeks for ViaSat-3 to reach its final orbital destination, located at 88.9° west longitude.

EXECUTIVE MOVES

Arqiva Appoints Dom Wedgwood as Chief Technology Officer

May 24, 2023 – Leading global communications infrastructure and media services company, Arqiva, is pleased to announce the appointment of Dom Wedgwood as Chief Technology Officer. Dom joins on 01 June 2023 and is appointed to Arqiva's Executive Committee, reporting to CEO Shuja Khan. Before joining Arqiva, Dom was Senior Vice President for Broadcast Technology and OTT Playback Experience at DAZN Group, the live and on-demand global sports streaming platform. While there, he had end-to-end accountability for the product management and technology teams across broadcast, network and streaming. Prior to this he was Broadcast Operations and Technology Director for Perform Group, managing services for sports rights holders and federations.

Charlotta Sund Appointed New CEO of Swedish Space Corporation

May 4, 2023 – The Board of Swedish Space Corporation (SSC) has appointed Charlotta Sund as the new President and CEO of the SSC Group. She will take office during the autumn of 2023, and succeeds the current CEO Stefan Gardefjord who retires after twelve years in the company. Since 2018, Charlotta Sund is the President and CEO of Tekniska verken in Linköping, an industrial group tasked by regional community owners with creating resource-efficient energy systems for a sustainable society. There, she has led the organization through times of change, during the current energy crisis, as well as adapted to new regulations and expectations from both private and commercial actors on sustainable, safe and secure services. Her background also includes a vast experience from Ericsson, a global telecom group where she held several senior positions. From this period of her career, she brings a customer focused mindset and deep knowledge on how to integrate sustainable innovation into the core business and use it as a tool to attract new customers. Charlotta will officially take office during the autumn of 2023, according to an agreement between the SSC Board and the retiring CEO Stefan Gardefjord.

ST Engineering iDirect Announces Strategic Leadership Appointments

May 2, 2023 – ST Engineering iDirect, a global leader in satellite communications, has announced four new strategic appointments, as the business strengthens its global leadership team. Tim Verschage, a satcom industry veteran, has been appointed as Senior Vice President of Product Strategy and Development. Emma Park has been appointed as Senior Vice President of Market and Growth Strategy, and will redefine the company's go-to-market strategy in response to the evolving

and dynamic market and customer requirements. Park brings over 25 years of experience in sales, business development and strategy in telecommunications, satellite and IoT. Dean Buckley has been appointed Chief Operating Officer, and will be laser focused on customer-centricity ensuring execution and committed delivery of the company's products and solutions. In his 18 years with the company, Buckley has managed several of its key operational and customer-facing teams and has been responsible for positioning the company for scalable growth. Julie Bettinger has been appointed as Chief Marketing Officer, having led ST Engineering iDirect's marketing team for nearly two decades. Bettinger will be focused on strengthening ST Engineering iDirect's brand positioning and will also play a critical role in continued strategic engagement with customers and the market.

ABS Appoints Ramsey Khanfour as Chief Commercial Officer

May 1, 2023 – ABS, a global satellite operator, announced today that Ramsey Khanfour has been appointed as the company's Chief Commercial Officer (CCO), based at the head office in Dubai, UAE. Ramsey will be a key addition to the executive management team and will oversee global sales and marketing activities to drive the company's next phase of growth as it navigates new markets, solutions and business models. Ramsey brings over 20 years of international experience spanning business development, sales, and strategy, with a long track record in the industry in senior leadership positions as well as a strong foundation in consulting and network engineering for fixed and wireless technologies including satellite and optical networks. Prior to joining ABS, Ramsey was VP of Sales and Business Development at SES, focusing on government, Telcos/MNOs, cloud, energy, mobility and media verticals amongst others for satellite solutions and space development. He previously held senior roles with Booz & Co, STC, Orange Business services, and Nortel Networks in the GCC and North America.

REPORTS

NSR Releases High Altitude Platforms, 5th Edition (HAPs5) Report

May 16, 2023 – Gain critical insights from NSR's *High Altitude Platforms, 5th Edition (HAPs5)* report. Our extensive analysis covers industry trends, platforms, applications, development stages, and growth forecasts across all regions and platform types, ensuring you have a panoramic view of the global HAPs market. HAPs5 provides an in-depth comparison of the unique value proposition offered by High Altitude Platforms (HAPs) in contrast to satellites and Unmanned Aircraft Systems (UAS). By examining the plans, agreements, and proposals of key players in the HAPs market, we provide you with a nuanced understanding of the current market landscape and the factors driving its growth.

Euroconsult: Maritime Bandwidth Capacity Demand Set To Increase Twentyfold By 2032

May 4, 2023 – With the most serious restrictions of COVID-19 now generally in the rearview mirror, leading market intelligence firm Euroconsult estimates that maritime connectivity sectors have mostly recovered from the pandemic's influence on supply chains and vessel activity at the end of 2022. According to Euroconsult's forecasts, maritime satellite communication operators are expected to surpass $1.1 billion in revenues by 2032 at a 7% CAGR over the decade. Though some service providers will see a fall in their average revenue per unit (ARPU), total service revenues are expected to grow at a similar CAGR, falling slightly short of $3 billion by 2032. In the latest release of its annual *"Prospects for Maritime Satellite Communications"* report, Euroconsult caveats the findings by warning that low-bandwidth services, predominantly for small merchant and fishing vessels, have not escaped the impact of the rising influence of inflation either and have seen an increase in data plan pricing. The report also makes reference to the war in Ukraine, which has led to geo-political effects on sectors like Offshore Oil and Gas, resulting in an increase in the number of support vessels being deployed to deal with demand-supply challenges.

NSR's Satellite Capacity Pricing Index, 9th Edition

May 2, 2023 – With comprehensive data from across the globe, NSR's *Satellite Capacity Pricing Index,*

9th Edition (SCPI9) empowers businesses to navigate the complex satellite market and optimize their pricing strategies. Built on extensive pricing research, SCPI9 provides real-time insights into the current market conditions with our Q1 2023 spot index and anticipated price ranges. We also offer seven-year historical data and forecast for Q1 2024, giving you a complete understanding of the market's trends. NSR's Satellite Capacity Pricing Index, 9th Edition (SCPI9) also offers insights into the impact of LEO constellation operators, satcom consolidation, and macroeconomic conditions on satellite capacity pricing, helping you stay ahead of the curve.

UPCOMING EVENTS

Satellite Industry Forum, June 6, Singapore, https://www.aviasif.com/

Asia Tech x Singapore 2023, June 6-9, Singapore, https://asiatechxsg.com/

Asia Satellite Business Week, June 7-9, Singapore, https://asiatechxsg.com/satelliteasia/

Australasia Satellite Forum 2023, June 13-14, Sydney, Australia, https://www.talksatellite.com/asf2023one.html

Asia Video Summit, June 20-21, Hong Kong, https://asiavideosummit.com/

World Satellite Business Week, September 11-15, Paris, France, https://wsbw.com/

IBC 2023, September 15-18, 2023, Amsterdam, https://show.ibc.org/

APSCC 2023, October 10-12, Kuala Lumpur, Malaysia, https://apsccsat.com/

OTT SUMMIT, December 8, Singapore, https://ottsummit.asia/

EDITORIALS AND INQUIRIES

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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.apscc.or.kr.