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News in this issue has been collected from November 1 to November 30.

SATELLITE BUSINESS

Eutelsat OneWeb and Hanwha Systems Sign Distribution Agreement for the Delivery of Satellite Connectivity in South Korea

November 29, 2023 – Hanwha Systems has signed a distribution partnership agreement with Eutelsat OneWeb to provide high-speed, low latency connectivity services to South Korea. Hanwha Systems is pursuing participation in the 'commercial low-orbit satellite-based communication system' project that secures a Korean government network using Eutelsat OneWeb's satellite network and is also installing satellite communication terminals in remote areas where internet access is difficult, as well as at sea and in the air. Through Eutelsat OneWeb and Hanwha's B2B satellite communication services customers will receive stable 'Space Internet' services 24 hours a day from low-orbit satellites. Hanwha Systems announced plans to take steps to obtain approval for the government's landing right, which is the Korean cross-border provision of key telecommunications services. The satellite communication network's frequencies and orbits are secured through international registration with the International Telecommunication Union (ITU). When using an overseas satellite network, approval for landing right must be obtained from the Korean government to prevent national security threats. Hanwha Systems completed registration as a communications business with the Ministry of Science and Technology last July and plans to submit a landing right agreement with Eutelsat Group at the end of this month.

Spark Sends First Satellite Text Message and Announces Plans for a Network of Satellite-connected Cell Towers

November 29, 2023 – After successfully sending its first text message via satellite, Spark has unveiled plans to establish a network of satellite-connected cell towers throughout the country, aiming to ensure that every region in New Zealand has access to a basic level of mobile connectivity during emergencies where fibre backhaul becomes compromised. Spark and satellite partner Lynk sent the first text message via satellite at 10:47am last Friday. The text was sent by Spark engineers from a standard mobile, positioned in a mobile blackspot near Kawakawa Bay in Auckland via one of Lynk's satellites approximately 500 kilometres overhead, travelling at approximately 27 thousand kilometres per hour. Off the back of this success, Spark will begin trials later this year and will be expanding it further next year. In addition to implementing new satellite-to-mobile technology, by the end of the year Spark will house satellite-connected temporary cell towers across Northland, Auckland, Napier, Palmerston North and Canterbury, which will be readily available to deploy should Spark's mobile network be impacted by major fibre damage, with the aim of expanding to further sites in the future.

Marlink Adds Starlink and Eutelsat OneWeb to PONANT Hybrid Network for First Triple LEO North Pole Service

November 28, 2023 – Marlink has completed the integration of Starlink and Eutelsat OneWeb LEO internet services on PONANT's Le Commandant Charcot, the world's only luxury icebreaker, to

provide all three LEO solutions for the ship's polar itineraries. The installation is the first in the maritime sector to combine Marlink's Sealink GEO VSAT, with Starlink, Eutelsat OneWeb and Iridium LEO services. The agreement with PONANT reflects Marlink's leadership in combining guaranteed throughput VSAT services with the emerging high speed, low latency LEO services. The combination of three primary services means that PONANT can select the backbone VSAT for data that requires a guaranteed throughput and in addition enjoy augmented polar coverage using Starlink, OneWeb and Iridium LEO services. Together Starlink and Eutlesat OneWeb will enable higher speed connections across a range of applications, raising the available throughput and reducing latency for guests and crew usage onboard. Leveraging Marlink's expertise in smart hybrid networks, the bandwidth delivered by GEO VSAT, LEO networks and 4G/5G services will facilitate seamless collaboration between the ship's bridge, engineering crew and shore teams, and enhance connectivity to friends and family, thanks to Marlink's SD-WAN-orchestrated connectivity.

Amazon's Project Kuiper and NTT/SKY Perfect JSAT Form Strategic Collaboration to Bring Advanced Satellite Connectivity Options to Japan

November 27, 2023 – Nippon Telegraph and Telephone Corporation (NTT), NTT DOCOMO, Inc. (NTT DOCOMO), NTT Communications Corporation (NTT Com), and SKY Perfect JSAT Corporation (SKY Perfect JSAT) have formed a strategic collaboration with Project Kuiper, the low Earth orbit (LEO) satellite broadband network from Amazon, to bring advanced, reliable, and far-reaching satellite connectivity options to customers in Japan. The companies expect to use Project Kuiper LEO satellite connectivity services to enhance communications availability and resiliency for Japanese customers. As part of this collaboration, NTT and SKY Perfect JSAT plan to distribute Project Kuiper connectivity services to enterprises and government organizations in Japan, while NTT Group companies become customers of Project Kuiper. The companies plan to use Project Kuiper to provide their customers with new connectivity options to build out resilient, redundant communications networks. As a result of this collaboration, Japanese businesses will be able to use Project Kuiper connectivity to support a broad range of applications, including internet of things, predictive maintenance, fleet management, remote manufacturing, and more. Customers will also be able to use Project Kuiper to connect to Amazon Web Services (AWS) to run advanced technologies such as machine learning and AI. Moving forward, Project Kuiper, NTT, SKY Perfect JSAT, and the other companies will explore a broader range of collaborations related to seamless communication between Earth and space to help Japanese businesses innovate. The goal is to create new services to help customers make more sustainable use of their resources and give consumers improved options for healthcare, financial services, entertainment, and more.

INTEGRASYS Creates a New Center of Excellence in Kyiv, Ukraine, Reinforcing Commitment to National Security Drone & Cyber.

November 22, 2023 – INTEGRASYS announced the opening of its new office in Kyiv, Ukraine. This strategic move follows INTEGRASYS's recent donation to the Ministry of Defense (MoD) of Ukraine, encompassing critical equipment and smart solutions aimed at enhancing the country's operational capabilities amid ongoing defense challenges both strategic and tactical capacities, focusing on ensuring seamless communication in congested and contested electronic environments. They provide essential tools to fortify Ukraine's defense efforts, empowering the nation to effectively communicate and achieve spectrum superiority in the face of a potential invasion. INTEGRASYS has decided to open a new centre of excellence in Kyiv to have closer interaction with the end user, closer onsite support, with cleared personnel, and development of new capabilities for new needs, the agility that Integrasys has proven in the latest wars on delivery needs to end users has been very impacting in the ecosystem, and therefore the closer we are, the more rapid the capabilities can be adopted, proven, improved and deployed. In line with its expansion strategy, INTEGRASYS firmly believes that establishing a local presence is the most effective way to provide seamless integration with the end user's needs. The new office in Kyiv will serve as a hub for delivering tailored, flexible, and agile assistance, addressing the specific needs and challenges faced by Ukraine in its operations

and missions.

Transformative Partnership between Kratos Defense & Rocket Support Solutions and ReLogic Research Created

November 22, 2023 – Kratos Defense & Rocket Support Solutions, Inc. (Kratos), a subsidiary of Kratos Defense & Security Solutions, Inc., a Technology Company in the Defense, National Security and Global Markets, and ReLogic Research, Inc., are proud to announce the formation of Atreus Technologies, LLC, a Small Business Association Mentor Protégé Program joint venture. A visionary collaboration between these two companies, Atreus Technologies was created to rapidly and cost effectively deliver leading edge technology and innovation tailored specifically for our valued customers in the defense and aerospace sectors. Atreus, the son of Kratos, was the inspiration for the name chosen for this strategic partnership that embodies the formidable strength, unwavering determination and forward-thinking innovation that both Kratos and ReLogic Research are renowned for within their respective fields. Atreus Technologies' core objective is to harness the combined strengths of both companies to provide groundbreaking solutions addressing the evolving needs of our Nation's Warfighters. Kratos utilizes proven, leading-edge technology, not unproven, bleeding edge technology, to rapidly develop and field relevant products, software and systems in support of National Security priorities. At Kratos, affordability is a technology, and Kratos' leading technology approaches also reduce program and initiative cost, risk and schedule. This methodology will similarly be executed at Atreus.

Eutelsat OneWeb First to Receive Approval from Indian Space Regulator for Satellite Broadband Services

November 21, 2023 – OneWeb India has today received the necessary authorisations from IN-SPACe to launch Eutelsat OneWeb's commercial satellite broadband services in India. OneWeb India is the first organisation to be granted this authorisation. Eutelsat OneWeb, the low earth orbit operator, is part of Eutelsat Group. IN-SPACe is the agency of the Government of India, responsible for regulating space activities and granting authorisation for conducting the space activities in the country. This authorisation means Eutelsat OneWeb can launch commercial connectivity services as soon as spectrum allocation has been granted by the Government. This news adds to Eutelsat OneWeb's existing strong position in the Indian market, where OneWeb India already holds the necessary licences from the Department of Telecommunications to provide broadband services using satellite connectivity. The business has also obtained in principle approval to establish and operate two gateways in Gujarat and Tamil Nadu, which would secure the provision of vital high-speed, low-latency internet connectivity to customers across India, once services are rolled out.

Totoheo Maritime Passes 1,000-ships in Milestone for Inmarsat Fleet Xpress Installations

November 20, 2023 – Satellite communications and technologies specialist Totoheo Maritime has passed the 1,000-ship mark in Fleet Xpress terminal installations, in a significant milestone for its collaboration with Inmarsat that reinforces the appeal of high-speed maritime broadband services. Totoheo has worked closely with Inmarsat Maritime, a Viasat business, for over 30 years and has played a key role supporting commercial shipping's uptake of the Fleet Xpress service since its launch in 2016. The 1,000 terminal installations have included container and general cargo ships, tankers, bulk carriers and very large crude carriers. Inmarsat's Fleet Xpress is the only global network combining Global Xpress Ka-band technology with resilient L-band back-up built in as standard, offering 99.9% uptime SLA on secure high-bandwidth connectivity. Its ability to provide guaranteed global bandwidth has been central to powering the maritime data revolution, allowing shipping companies to operate more intelligently and efficiently while enhancing safety, cyber security and crew welfare and supporting regulatory compliance.

Hughes JUPITER 3 Satellite Begins over the Air Testing with the Ground System

November 16, 2023 – JUPITER™ 3 ultra-high-density satellite has successfully deployed its solar

arrays and antennas, and the spacecraft has passed readiness testing by the manufacturer, Maxar Space Systems. Hughes is now testing the satellite communications with ground equipment, which is the final step before initiating broadband services for customers such as airlines, corporations, governments, and consumers of its popular HughesNet service. The JUPITER 3 satellite will bring over 500 Gbps of additional broadband capacity across North and South America. The increased capacity of JUPITER 3 will power new HughesNet® satellite internet plans, including innovative HughesNet Fusion® Plans that use multipath technology to reduce latency for a more responsive internet experience. JUPITER 3 will support the efforts by Hughes to bridge the digital divide and provide internet access to rural customers across the Americas, as well as applications such as in-flight Wi-Fi for airline passengers, enterprise networking, and cellular backhaul for mobile network operators (MNOs). The JUPITER 3 orbital position is 22,236 miles (35,786 kilometers) above the equator at 95 degrees west.

Viasat and Skylo Technologies Launch First Global Direct-to-Device Network

November 16, 2023 – Viasat, Inc. and Skylo Technologies announced the launch of the world's first global direct-to-device (D2D) network. The companies' global infrastructure agreement will, for the first time, allow Mobile Network Operators (MNOs), device makers and chipset manufacturers to take 3GPP Release 17 compliant products to market, within Viasat's global network coverage. Combining Skylo's industry-first Release-17-based satellite technology with Viasat's geostationary, L-band satellite constellation and licensed spectrum holdings (through its subsidiary, Inmarsat), as well as those of other satellite operator partners, the new network will support consumer smartphone services and unlock the potential for massive Internet of Things (IoT), automotive and defense applications. The combination of the network with MNO and chipset manufacturer collaboration will provide new opportunities for Original Equipment Manufacturers (OEMs) that wish to embed connectivity into their smartphones, wearables, vehicles, machinery and other devices. IoT solution providers stand to gain access to ubiquitous connectivity and economical hardware to scale their solutions globally. The new network will utilize Viasat's global L-band capabilities as well as partner satellite operator networks. L- Initial deployments are planned for early 2024 in North America, using the Ligado SkyTerra satellite network, followed by a global rollout. Partners and customers will be able to access the services through Viasat or Skylo.

Offshore Link Sat (OLS) Strengthens Partnership with Eutelsat Group for Maritime Connectivity

November 16, 2023 – Eutelsat Communications announces that Offshore Link Sat (OLS) has expanded its capacity on EUTELSAT 8 West B for GEO maritime connectivity services off the Brazilian coast. OLS, a Brazilian telecommunication service provider specialised in offshore connectivity for the oil & gas industry (offshore platforms and vessels), further leverages Eutelsat Group's in-orbit assets to strengthen its tailored connectivity solutions. The powerful EUTELSAT 8 West B satellite is particularly suited to the maritime market in Brazil with 10 operational transponders connected to footprints covering the African continent and reaching west to South America.

Telenor Group Sells Telenor Satellite to Space Norway

November 16, 2023 – Telenor has entered into an agreement with Space Norway regarding the sale of its subsidiary Telenor Satellite. Space Norway is a leading player in the Norwegian space industry. The sales price is NOK 2.36 billion on an enterprise value basis. As Space Norway is wholly owned by the Norwegian Government, the transaction is subject to approval by the Norwegian Parliament. Closing of the transaction is expected in January 2024. Telenor and Space Norway have already signed a letter of intent outlining a strategic partnership and possible joint business development initiatives, in particular regarding additional satellite capacity and satellite consulting services.

EDGE Selects Yahsat to Provide Satellite Communication Solutions for its REACH-S Airborne Platforms

November 15, 2023 – Al Yah Satellite Communications Company PJSC ("Yahsat") announced that it

has been selected by ADASI, an entity of the EDGE Group and a leading provider of Unmanned Aerial Vehicles (UAVs), to equip its REACH-S platforms with Yahsat's cutting-edge, secure satellite communications solutions. By combining forces in this way, both Yahsat and ADASI reaffirm their commitment to revolutionizing UAV connectivity in the UAE. The partnership brings together Yahsat's satellite infrastructure and solutions, covering more than 80% of the global population, with ADASI's unique autonomous systems, culminating in a multi-million US$ deal.

Chunghwa Telecom Selects Eutelsat OneWeb for Low Earth Orbit (LEO) Satellite Services

November 15, 2023 – Chunghwa Telecom, the largest integrated telecommunication service provider in Taiwan, has signed an exclusive multi-million-dollar distribution partner agreement for Low Earth Orbit (LEO) satellite services with Eutelsat OneWeb, ushering in a new era of satellite connectivity in Taiwan. Eutelsat OneWeb's LEO satellite network will enable Chunghwa Telecom to bolster their expansive suite of communication services with additional space-based connectivity. The integration of Eutelsat OneWeb services to Chunghwa's solution set will offer greater resiliency as well as complementing terrestrial fixed and mobile networks, submarine cables and microwave communication services, which they provide for government and business customers. Chunghwa Telecom plans to continue actively collaborating with international and domestic industry partners, including participating in key satellite business developments. Additionally, Chunghwa Telecom plans to establish a satellite service terminal testing center in Taiwan with Eutelsat OneWeb, aiming to provide technical expertise and integrate domestic and international satellite service resources. Chunghwa Telecom will collaborate with government satellite research institutions, academic units, and satellite industry vendors to collectively promote the development of the domestic satellite industry.

SES-led EAGLE-1 Onboards TNO and Airbus to Deliver Ground Station for Quantum Key Distribution

November 15, 2023 – The SES-led consortium of European companies, responsible for development of the quantum secure space-based EAGLE-1 system and working in close collaboration with the European Space Agency (ESA), is joined by TNO and Airbus Netherlands B.V., to design and build an optical ground station for the mission. The contract was signed today by the partners at the Space Tech Expo in Bremen. The optical ground station for EAGLE-1 represents a highly advanced and complex system which will be able to receive quantum encryption keys from the EAGLE-1 satellite, and will have at its core a system that integrates fast adaptive optics, accurate mirrors, a robust fiber coupling, a novel laser beacon system, and a stabilised telescope. TNO and Airbus Netherlands B.V. will lead the collaboration to design and build the optical ground station, where TNO is responsible for the design, the adaptive optics and overall system engineering, and the Airbus team in the Netherlands will develop the support technologies, control platform, and implementation. The collaboration is jointly funded by the Netherlands Space Office (NSO) and NXTGEN HIGHTECH. Co-funded by the European Space Agency (ESA) and the European Commission (EC), together with the space agencies of Germany, Luxembourg, Austria, Italy, the Netherlands, Switzerland, Belgium and the Czech Republic, and the industry, the EAGLE-1 programme will demonstrate the feasibility of quantum key distribution (QKD) technology via satellite within the EU and beyond, enabling next generation cybersecurity for the Member States. It will also provide valuable mission data for the future deployment of a secure quantum communication infrastructure for the EU (EuroQCI).

Rivada Forges an Alliance with TMT Firm NOW Corp to bring The OuterNET to the Philippines

November 15, 2023 - NOW Corporation is partnering with Rivada Space Networks to provide a unique next generation connectivity network for the Philippines. NOW Corporation will harness the OuterNET^{TM} where Rivada's seamless connectivity will ramp up performance, improve security, and increase customer efficiency. Rivada's industry-leading solutions will provide resiliency for high quality voice, video and data solutions to enterprises that require secure infrastructure, such as banking and financial services, mining and transportation. Rivada's OuterNET^{TM} is also particularly well suited for the low latency and secure connectivity required by national and local government

and defence sectors and will play a key role in NOW Corp's goal of providing trusted connectivity to critical infrastructure projects in the Philippines. NOW Telecom, NOW Corp's associate and telecom arm, recently secured a grant from the US Trade and Development Agency for the development of reliable and secure nationwide 5G mobile and broadband networks in the Philippines.

Yahsat, Bayanat and ICEYE Expand SAR Satellite Fleet to Seven Spacecraft Covering the Middle East
November 15, 2023 – Bayanat (a leading provider of AI-powered geospatial solutions) and Al Yah Satellite Communications Company PJSC (Yahsat – the UAE's flagship satellite solutions provider) today announced the expansion of their ambitious Earth Observation (EO) space program from five to seven synthetic aperture radar (SAR) satellites. The expansion of the constellation – with technology, training, and expertise provided by program partner, ICEYE, a global leader in SAR satellite development – means that orbiting satellites will revisit the Middle East more frequently, enabling Bayanat and Yahsat to deliver near real-time, high-definition images of on-the-ground conditions across the Middle East as they execute their plan to serve domestic and international customers with advanced geospatial intelligence. Using radar signals rather than light, the SAR satellite images deliver persistent monitoring of specific locations on the Earth's surface – day and night, through the clouds, and multiple times per day – and enable government and business customers to detect detailed changes on the ground. Typical applications include identifying oil spills; monitoring maritime activities, for instance, illegal fishing or encroachment into territorial areas; and surveillance activity at ports. These capabilities are applicable to organizations across a wide range of sectors – insurance, national security, and climate change monitoring, among others.

NEC XON and Eutelsat OneWeb Sign Distribution Agreement for LEO Capacity in Sub-Saharan Africa
November 15, 2023 – Eutelsat OneWeb, the LEO internet operator and part of Eutelsat Group and NEC XON, a leading African Information and Communications Technology (ICT) integrator, have signed a multi-year master distribution agreement to bring high-quality LEO connectivity to Sub-Saharan Africa. The agreement encompasses installation, and comprehensive training across Sub-Saharan Africa. Eutelsat OneWeb's LEO satellite-based network will provide high throughput, low latency connectivity to support rapid digital economy growth. This move supports the pressing need for seamless connectivity without borders, in applications such as cellular backhaul, oil and gas, agriculture, government and mining. The integration with NEC XON's high quality ICT services will enable cutting-edge connectivity designed for the demands of the African continent. Furthermore, the agreement provides for a bandwidth-and Service Level Agreement to ensure that customers get the speed and QoS they expect.

Intelsat and Africa Mobile Networks Expand Cellular Coverage across Africa
November 14, 2023 – Intelsat and Africa Mobile Networks (AMN) have deployed more than 3,000 rural base satellite antennas across several countries in Africa since 2018, providing new telecommunication services to more than 8 million people. AMN is a group of companies that builds, owns, operates and maintains mobile network infrastructure servicing Africa's largest Mobile Network Operators (MNOs). AMN's largest network is in Nigeria and now features more than 1,350 sites. With more than 450 sites added just since June 2023, the collaboration now provides phone and internet services to more than 3.5 million people in previously unconnected Nigerian communities. Intelsat and AMN are planning additional operations in Madagascar, Rwanda and DRC. AMN expects to build more than 1,340 rural base stations across the three new markets. Combining Intelsat's multi-satellite African coverage with AMN's solar-powered tower solution means that citizens and businesses in virtually any community can now have access to the education, social and economic benefits of telecommunication services. AMN specializes in connecting communities, reducing upfront and ongoing equipment costs while allowing cell services to be extended into areas where traditionally it was not economically viable to do so. The use of satellite to provide "backhaul" connectivity to remote cell towers is integral to this business model. The location and terrain of these towers often do not allow backhaul solutions like fiber-optic cable and microwave to be used.

Telesat Selects Aalyria's Spacetime for Orchestration of its Revolutionary Telesat Lightspeed Constellation

November 14, 2023 – Telesat and Aalyria announced an Agreement to deploy Aalyria's Spacetime next-generation networking technology to organize the efficient flow of customer traffic over the Telesat Lightspeed Low Earth Orbit (LEO) satellite constellation. Telesat Lightspeed satellites will contain leading-edge technologies, including digital beamforming, integrated onboard data processing, and optical inter-satellite links, resulting in better link performance, increased network efficiency, and enhanced flexibility to focus and dynamically deliver reliable capacity to customers. To help achieve this mission, Telesat is leveraging Aalyria's unparalleled expertise in all-domain orchestration and management, ensuring seamless integration, optimal performance, and efficient operation of the Telesat Lightspeed network. Under the terms of the 10+-year agreement, Telesat will use Aalyria's Spacetime platform to find the most robust and reliable routing of customer data between any two points on earth through real-time analysis of millions of possible paths, autonomously evolving antenna link scheduling, dynamic network traffic routing, and spectrum resources based on changing network requirements.

Marlink and Intellian Technologies Sign New Five-year Strategic Partnership Agreement

November 14, 2023 – Intellian Technologies, a leading global provider of multi-constellation, satellite user terminals and communications solutions, and Marlink, the network and digital solutions company, today announce the renewal of their existing strategic partnership. This agreement will continue to support the connectivity landscape across maritime, land and military sectors, delivering cutting-edge network solutions over the next five years. Marlink has long been recognised for its pioneering role in the satellite communications industry as an early adopter of new technologies to benefit Marlinks diverse customer base. With a strong commitment to quality and technological innovation, Marlink has built an exceptional reputation as a leading service partner of fully managed end-to-end smart hybrid network solutions worldwide. Marlink's selection of Intellian Technologies reinforces the value and strength of their partnership across maritime, land and military applications.

SD-WAN Connectivity Solution from neXat Simplifies Network

November 13, 2023 – The maritime, mobile, corporate and government sectors will benefit from significantly improved communications through the new Software-Defined Wide Area Network (SD-WAN) solution from neXat, which integrates configuration, monitoring and control into a single user platform. neXLink has been designed to streamline business networking and enable optimal application performance through the use of centrally controlled and managed Wide Area Network (WAN) virtualisation. Capable of aggregating LEO, MEO and GEO satellites as well as 4G/5G links, neXLink ensures networks can be easily configured and monitored centrally through neXat's Operations Support Systems/Business Support Systems (OSS/BSS) platform, resulting in reduced network management complexity and overall costs. neXLink provides businesses with a versatile and essential solution for the optimal functioning through a number of networks. The solution not only benefits maritime networks, especially in terms of fleet owners, but also terrestrial mobile and fixed networks.

Azercosmos and Bayanat Signed an Agreement on the Development of Geographic Information Systems

November 11, 2023 – A cooperation agreement was signed between Azercosmos and Bayanat company of the United Arab Emirates (UAE). According to the agreement, the parties will cooperate in the area of Geographic Information Systems (GIS). This includes promoting potential projects and opportunities for the acquisition, processing and application of remote sensing data, geospatial data capabilities, experience and knowledge sharing. Moreover, Azercosmos will be able to utilize the geospatial information platform that belongs to Bayanat for 1 year. Within the framework of the cooperation, the expansion of the use of Earth observation solutions during mapping and research in the field of oil and gas is also planned. Bayanat company will also conduct training programs in

Azerbaijan on artificial intelligence, Synthetic Aperture Radar (SAR) technology (a type of geospatial data collection), geographic information systems and remote sensing solutions, especially for experts and users of GIS. It should be noted that Bayanat has been providing high-quality geographic information, geospatial and artificial intelligence-powered data analytics in the Middle East and beyond for more than 40 years.

Viasat and Bellwether Industries Expand Partnership to Include Integration of Velaris Terminal and Test Flight Plans

November 13, 2023 – Viasat and the UK-based eVTOL startup Bellwether Industries announced the selection of Viasat's Velaris satellite connectivity for the upcoming aircraft model, Oryx. Partnering closely with Viasat reflects Bellwether's pledge to keep its development plan in high gear. The two companies are in the midst of a two-phase test as part of Viasat's Velaris Partner Network, with plans to include a test flight schedule at a commercial aerodrome later in the program. The engagement underscores the steadfast dedication to innovation and excellence that characterizes their partnership. The Velaris service provides secure satellite communications for commercial Urban Air Mobility vehicles, such as Bellwether's Oryx, to seamlessly integrate with aircraft in commercial airspace. The 300g (0.6 lbs) multi-link terminal installed on the vehicle simultaneously connects to the Viasat network and LTE, enabling operators to access a wide variety of applications, such as real-time monitoring, to enable safe and secure airspace integration (including air traffic services and air traffic flow management).

Comtech Receives Order from Spectra Group for Next Generation Troposcatter Systems

November 9, 2023 – Comtech announced the receipt of a $20.0 million order from the company's UK-based partners, Spectra Group. The order will allow Spectra Group, the appointed regional distributor of Comtech's Compact Over-the-Horizon Transportable Terminal (COMET), to service multiple orders already received, and several expected follow-on orders from undisclosed customers in the NATO and European regions. Comtech's feature-rich, network agnostic COMET system is designed to be easily integrated with other Department of Defense (DoD) and coalition tactical, mobile, and fixed communications systems to provide resilient, secure beyond-line-of-sight (BLOS) capabilities in some of the world's most challenging environments. Each Comtech COMET is an end-to-end, rapidly deployable BLOS system that utilizes a single fully integrated Troposcatter hub, which includes the company's CS67PLUS Troposcatter radio. The CS67PLUS is also embedded across each of Comtech's next generation Family of Systems (FoS). Comtech's next generation Troposcatter FoS, which includes the company's market leading COMET systems, provide military operators and other end users with innovative BLOS capabilities by scattering microwave radio signals off the upper layers of the troposphere.

Intelsat Awarded U.S. Army's First Satellite Communication (SATCOM) as a Managed Service (SaaMS) Pilot Contract

November 9, 2023 – Intelsat will shortly provide the U.S Army with new, flexible, and fully managed multi-orbit satellite communications (SATCOM) support, following the award of the Army's first-ever Satellite Communication (SATCOM) as a Managed Service (SaaMS) contract. The scope of the Army's SaaMS pilot includes end-to-end managed subscription services to support connections with commercial teleports and internet services. The Intelsat solution includes Intelsat Flex services for geostationary (GEO) connections and a well-known commercial low-earth orbit (LEO) satellite service provider for a LEO option. The pilot will provide world-wide coverage via leased satellite terminals and services with 24x7support.

MediaMobil to Leverage Eutelsat Group Capacity to Deliver Global Maritime Connectivity

November 8, 2023 – Eutelsat Communications has been selected by MediaMobil, a telecommunications company improving internet access to remote locations, to provide maritime connectivity to hundreds of ships and off-shore vessels around the globe. MediaMobil will benefit

from Eutelsat ADVANCE solution, a global GEO network of unparalleled coverage facilitating long-distance connectivity and an innovative satellite network-as-a-service managed experience. This deal gives MediaMobil access to the vast fleet of geostationary (GEO) satellites owned and operated by Eutelsat Group, and to its robust terrestrial infrastructure, from a set of 16 global gateways to the multiple points of presence (PoPs) positioned across the planet. Operating through this GEO infrastructure, Eutelsat ADVANCE is a cost-effective and rapidly deployable solution that provides long-distance connectivity and flexible bandwidth to a variety of market needs across maritime, government, aviation and private enterprises.

U.S. Department of Defense Awards Medium Earth Orbit BPA to SES Space & Defense

November 8, 2023 – ES Space & Defense, a wholly-owned subsidiary of SES, has been awarded a Blanket Purchase Agreement (BPA) with the U.S. Department of Defense (DoD) for Medium Earth Orbit (MEO) low-latency high-throughput satellite (HTS) services. The single award BPA has a ceiling of just under USD 270 million over a five-year period. With this contract, SES Space & Defense will continue to support U.S. DoD customers with industry-leading MEO low-latency HTS services globally. The BPA includes end-to-end MEO managed services with HTS capacity, broadband services, gateway services, monitoring and control services, satellite terminal leasing and sales, field service representative (FSR) support, training services and terrestrial backhaul. SES Space & Defense has been providing managed services to U.S. DoD end-users through numerous Task Orders on the original MEO low-latency HTS service BPA since 2018.

ThinKom Inks Deal for Regional Jet Antenna Production

November 8, 2023 – ThinKom's ThinAir® Ka1717 terminal is ready to take flight. The company secured a contract to deliver 500 shipsets of the system, allowing for broad deployment of the innovative solution. The Ka1717, with its advantages in weight, power, and efficiency, has become the leading satcom antenna solution for the regional jet market. he system's low power draw also supports unlimited gate-to-gate operation, even under severe on-the-ground thermal conditions. This "time on the tarmac" operation is key, in that it represents a larger proportion of the overall passenger experience for shorter regional jet flights. The Ka1717 joins the larger members of the ThinAir family in securing significant installation commitments from multiple service providers. The Ku3030 provides high-speed internet service for more than a dozen airlines across the globe. Similarly, hundreds of Ka2517 terminals are now flying on commercial aircraft, delivering streaming levels of service throughout the Americas, with global expansion on the horizon. The Ka1717 builds on this established high-performance pedigree, with a significant install base across North America expected by the end of 2024.

Viasat and Deutsche Telekom Commit Long-Term to Deliver In-Flight Connectivity via the European Aviation Network

November 7, 2023 – Viasat and Deutsche Telekom today announced a new, long-term agreement that cements the companies' commitment to providing in-flight connectivity (IFC) solutions to airline partners across the European Aviation Network (EAN). EAN launched in 2019, powered by Deutsche Telekom and Inmarsat, a business recently acquired by Viasat. EAN combines S-band satellite coverage with a complementary ground component network operated by Deutsche Telekom. EAN is a unique example of European technological and regulatory leadership, which allows travelers in Europe to benefit from an advanced IFC experience for most intra-European flights, including broadband services that support high bandwidth demanding applications such as streaming. Deutsche Telekom operates more than 300 EAN sites in 30 countries across Europe, providing substantial infrastructure across the continent. EAN uses small, low weight and low drag terminals, which can be installed on an aircraft in a matter of hours. This provides substantial cost savings while supporting sustainability initiatives and carbon reduction. Since 2019, more than 140 million passengers have had the opportunity to connect in-flight through the EAN connectivity solution. Today, EAN is available on more than 290 aircraft across various airlines, including Iberia, British

Airways, Vueling, and AEGEAN.

Lynk and bmobile Solomon Islands Limited Begin Sat2Phone Service for bmobile Subscribers

November 7, 2023 – Lynk Global, Inc. (Lynk), the world's leading sat2phone telecoms provider, and bmobile Solomon Islands Limited (bmobile), a leading mobile operator in the Solomon Islands, today announced the start of initial satellite direct-to-mobile phone services to subscribers using Lynk's "cell-towers-in-space". Bmobile becomes the latest MNO in the world to launch Lynk's sat2phone technology as a service for their subscribers. Established in 2010, bmobile is a leader in providing high-speed data, reliable voice and SMS telecommunications across the Solomon Islands. bmobile currently operates in four provinces across the country: Guadalcanal; Malaita; Western; and Central Province. With a footprint that is growing rapidly, bmobile is a leader in bringing innovative products to the Solomon Islands. Lynk has proven SMS, broadcast emergency alerts, and voice calls on all seven continents, and anticipates starting commercial service with many more MNOs globally over the rest of 2023. Lynk is also targeting service launch this year in Papua New Guinea with bmobile's parent company Telikom Ltd.

Av-Comm Signs MOU with Telikom Limited

November 6, 2023 – In tandem with Av-Comm's office opening, Mr. Amos Tepi and Av-Comm's CEO, Mr. Michael Cratt officially signed a Memorandum of Understanding (MOU), further solidifying the longstanding partnership between Av-Comm and Telikom Limited. This collaborative agreement sets the stage for a continued and strengthened relationship between the two organisations, bolstering their collective efforts to deliver resilient network capability across PNG. Av-Comm's expansion and the strengthened partnership with Telikom Limited reflect the companies' shared vision for excellence in the field of communication technology. Both entities are poised to leverage their combined expertise and resources to drive innovation and address the evolving needs of the Pacific Region.

Viasat Accelerates Key Integration Milestone

November 2, 2023 – Viasat Inc. announced that it has reached an important milestone in its integration program following the acquisition of Inmarsat. As part of its ongoing strategy to streamline operations and to better serve its growing customer base, Viasat has completed a rationalization of roles in its global business, to achieve both operational and cost efficiencies. As a result of the role rationalization, Viasat will reduce its global workforce by approximately 800 roles, or about 10%, spread across the business in terms of geographies and divisions. This move is expected to result in annualized run-rate operating expense cost savings of approximately $100 million beginning primarily in FY2025. Separately, this reduction will also contribute to the attainment of the Company's FY2025 capital expenditure target of $1.4 billion to $1.5 billion, including capitalized interest. The Company will incur charges of approximately $45 million to achieve these synergies, which will be incurred predominantly in the second half of FY2024. Viasat confirmed that today's actions enable the company to focus ongoing investments in space and ground technologies and assets that support customers' needs and the company's growth targets for revenue and AEBITDA in FY2024, FY2025, and beyond through increasing emphasis on global mobility across commercial and government markets. The cost reductions support improvements in operating results and reductions in capital spending that are consistent with previously announced plans to reduce debt and leverage and generate free cash flow by the first half of CY2025. The Company emphasized that following these actions, Viasat continues to operate with a global footprint, with a majority of its employees continuing to be located in the United States and the UK.

Maersk Supply Service Selects Inmarsat Fleet Data End-User API to Optimise Performance of Battery-Powered Vessel

November 2, 2023 – Maersk Supply Service has selected Fleet Data IoT platform from Inmarsat Maritime, a Viasat business, to help optimise the performance of its first vessel battery installation

onboard Maersk Minder Offshore Supply Ship, in a solution which will also allow the owner to evaluate how best to optimise the use of zero-emission energy storage systems across its fleet. An end-user API seamlessly gathers data from onboard equipment, automatically organises it with time-stamps, synchronises it, and uploads it to the customer's visualisation tools, all presented in a user-friendly format. Beyond streamlining in-house reporting and analytics, the API makes data available to original equipment manufacturers (OEMs), such as VPS, whose data-driven decarbonisation system, Maress, provides real-time insight into vessel performance to support fuel savings and emissions reduction. Crucially, Maress will help Maersk to evaluate the effectiveness of the battery system in terms of peak shaving and energy efficiency and determine the requirements for future battery installations for the rest of the fleet.

Delta Air Lines Selects Hughes In-Flight Connectivity to Elevate the Wi-Fi Experience on Regional Aircraft

November 1, 2023 – Hughes Network Systems, LLC announced that Delta Air Lines has selected the Hughes In-Flight connectivity solution to power passenger Wi-Fi service on more than 400 Boeing 717 and regional jets serving North America. Designed for commercial aircraft, the weight-optimized, high-performance aeronautical solution combines the advanced artificial intelligence and machine learning powered Hughes In-Flight management system with a multi-orbit antenna and Hughes JUPITER™ Ka-band satellite capacity to deliver reliable in-flight connectivity (IFC) even over busy airport hubs. This solution enables a consistent passenger IFC experience at scale across the entire itinerary. The program is already underway and on schedule with initial installations expected to begin in mid-2024. Capable of operating on JUPITER-enabled Ka-band high-throughput satellites around the world, Hughes In-Flight supports seamless roaming across JUPITER-driven satellites. The solution is forward-compatible with the Hughes JUPITER 3 ultra-high-density satellite, the largest commercial communications satellite ever built, which launched in July and will enter service later this year. It is also compatible with additional Ka-band satellite systems, providing airlines an onramp to even wider coverage and lower latency services as they come online. Globally, JUPITER System technology remains the de facto standard for satellite connectivity with proven performance.

BROADCAST

Telstra Broadcast Services and BT Announce Strategic Alliance to Enhance Global Network Connectivity

November 21, 2023 – Telstra Broadcast Services (TBS) and BT have entered into an initial five-year strategic alliance to bring together each company's global media network teams, pooling their vast network infrastructure and localised expertise. The deal will increase TBS' global footprint by 50% and expand its customer-base to more than 170 broadcast and media organisations worldwide. As part of the deal, customers of both TBS and BT will have access to the best unified operations of the two Global Media Networks via a product offering headed up by Telstra, including key Asia-Pacific regions with India, Malaysia, and Hong Kong, and other countries. Customers will benefit from Telstra's high-capacity media networks, generating expanded reach and distribution of their content. This will be supported by an increased local team in APAC and access to the broader suite of TBS products and services, including field services, special events teams, and broadcast operations centers in Sydney, Melbourne, Hong Kong, London, and Pittsburgh. Telstra and BT customers will continue to access the same high-quality media delivery service with the additional opportunity to drive greater global reach and visibility of their content.

Thuraya Collaborates with Norway-based AnsuR Technologies to Distribute its Advanced Video Compression Solutions

November 21, 2023 – Thuraya Telecommunications Company has announced a partnership with leading Norway-based technology company, AnsuR Technologies AS to enable businesses in various international markets to leverage the benefits of its advanced video compression technology, Asmira.

Asmira video compression is a versatile, network-agnostic software solution designed for video streaming from remote sites and platforms, offering various benefits to various users and across a wide range of use cases. The agreement expands Thuraya's portfolio of advanced solutions, introducing Asmira to its worldwide distribution network with a bundled license that includes an airtime subscription package for end users who require video compression solutions. The partnership is part of Yahsat's strategy to meet increasing market demand for Video and Intelligence, Surveillance, and Reconnaissance (ISR) solutions for improved situational awareness as well as safety and security. The solution can be offered through customizable business models providing flexibility to meet varying and challenging use cases while also simplifying management of the service. The key benefits of the Asmira video compression technology include the efficient utilisation of available bandwidth and bitrates hard-capped at low levels, securing operations even when bandwidth is constrained. This ensures that users achieve the best video quality with smaller and lighter equipment.

France Télévisions Chooses Eutelsat for UHD Broadcasting Solution to Terrestrial and Satellite Networks across France

November 13, 2023 – French public broadcaster, France Télévisions, has signed a multi-year contract with Eutelsat Communications to broadcast two 4K channels on both terrestrial and satellite networks. France 2 UHD, a full-time channel, and France 3 UHD, a part-time UHD channel dedicated to special events will be distributed via satellite to terrestrial transmitters across the French territory, as well as Direct-to-Home via the Fransat platform. The channels will be broadcast via the EUTELSAT 5 West B satellite using the new DVB-SIS (Single Illumination System) transmission technology standard. This enables France Télévisions to use a single content source, combining distribution to both the terrestrial network backbone (DTT) and Direct-to-Home (DTH) reception via Fransat, the free-to-view satellite platform for French DTT channels. In preparation for the Paris 2024 Olympic and Paralympic Games, the service is scheduled to start by early 2024. UHD or 4K offer viewers true immersion and an unprecedented viewing experience with an image quality four times richer than the current Full HD and two times more images per second. By incorporating satellite in their UHD distribution strategy, France Télévisions is ensuring that they can reach and serve all audiences with high-quality, reliable content delivery. Satellite has the available bandwidth and extensive reach, to provide extremely popular, premium quality content to all users across vast territories, as well as off-set terrestrial networks for a smooth, consistent viewing experience.

RSF to Launch Svoboda Satellite Bouquet for Independent Journalism in Russia

November 7, 2023 – In an unprecedented initiative aimed at ensuring the right to information, Reporters Without Borders (RSF), the international nonprofit organisation promoting and defending a free, independent and pluralistic journalism, have announced the signing of a contract with Eutelsat, a leading global satellite operator, on November 7, 2023. An RSF initiative will see, in the coming weeks, the launch of the Svoboda satellite bouquet, a dedicated satellite broadcasting service aimed at providing independent news and information to Russian speaking audiences. Svoboda, which means "freedom" in Russian, represents a significant step forward in the quest for unrestricted access to information in a region where media freedom faces numerous challenges. The bouquet will enable Russian-speaking viewers to access a wide range of independent journalism and international news, with the aim of fostering a more informed and diverse media landscape. The bouquet will feature news programs to offer a comprehensive and objective view of global events. RSF will ensure the playout of the content for Svoboda, in compliance with the highest journalistic standards. Specific media and ethics committees will be set up to guarantee that the satellite package is operated according to the best standards in terms of journalism. Eutelsat, known for its expertise in satellite services, will provide the satellite broadcasting capabilities, ensuring that Svoboda reaches audiences.

Blue Sky Network and Videosoft Global Partner to Integrate Video Compression Technology into the Skylink Family of Solutions

November 2, 2023 – Blue Sky Network announced a partnership with Videosoft Global for the

adoption of its innovative video compression technology. This collaboration will offer customized video solutions to end-users around the world who seek live streaming, along with optimized communications bandwidth from critical and austere locations. Blue Sky Network will leverage Videosoft Global's expertise in adaptive video compression and transmission protocols to enhance its existing SkyLink family of satellite communication (SATCOM) solutions. SkyLink operates on the Iridium Certus® network, a flexible, award-winning platform with bandwidth solutions that scale to meet size, weight, and power requirements. Blue Sky Network will embed Videosoft Global's real-time video streaming capability into their SATCOM terminal, bundled with Iridium Certus 100 airtime. Users that require real-time video surveillance for security, operational efficiency, or research, among many others, will benefit from increased usability and responsiveness, as well as customization and prioritization of audio, video, and data transmissions.

LAUNCH / SPACE

Tata Advanced Systems and Satellogic Sign Strategic Contract to Build LEO Satellites in India

November 29, 2023 – Tata Advanced Systems Limited (TASL), India's leading private sector player for aerospace and defense solutions, and Satellogic Inc., a leader in sub-meter resolution Earth Observation (EO) data collection, announced their collaboration for establishing and developing local space technology capabilities in India. This collaboration is a first step in TASL's satellite strategy and a significant milestone for Satellogic as it enters the fast-growing Indian defense and commercial market. The project will commence with comprehensive training, knowledge transfer, and local assembly of optical sub-meter resolution EO satellites, the first of which is planned to be launched as TSAT-1A. The focus will be on manufacturing satellites and developing imagery in India for national defense and commercial applications, toward which TASL is commissioning a satellite AIT plant at its Vemagal facility in Karnataka. TASL and Satellogic will collaborate on the development of a new satellite design and work together to integrate multiple payloads on a single satellite that will generate a diverse range of data over India. This contract marks Satellogic's second Space Systems customer, following an agreement with an international space agency.

Telesat Government Solutions Awarded DARPA Space-BACN Phase 2 Contract

November 29, 2023 – Telesat Government Solutions, a wholly owned subsidiary of leading satellite operator Telesat, today announced that it was awarded the Phase 2 contract of the Defense Advanced Research Projects Agency (DARPA) Space-Based Adaptive Communications Node (Space-BACN) program. The goal of Space-BACN is to create a reconfigurable, multi-protocol intersatellite optical communications terminal that is low in size, weight, power, and cost (SWaP-C), easy to integrate, and able to connect heterogeneous constellations that operate on different optical intersatellite link (OISL) specifications that otherwise would not be able to communicate. More simply, the goal is to eliminate stovepipes and "connect space," which will in turn help enable the Department of Defense (DoD) joint all-domain command and control initiative. This new award is a follow-on to the Phase 1 contract awarded to Telesat Government Solutions in August 2022 for work on Space-BACN Technical Area 3. Phase 2 includes a 20-month period of performance to continue evolving the schema for cross-constellation communications developed in Phase 1, to function in more challenging and dynamic scenarios. Phase 2 will emphasize scalability and increasing the nodes for connectivity while enhancing the schema's capabilities and efficiency.

Thaicom and Airbus Celebrate the Signing of Thaicom's New Software-Defined High Throughput Satellite

November 22, 2023 – Mr. Jean-Claude Poimboeuf, Ambassador of France to Thailand, hosts an official signing ceremony between Thaicom's Chief Executive Officer, Mr. Patompob (Nile) Suwansiri, and Airbus's Head of Space Systems and President of Airbus Defense and Space, Mr. Jean-Marc Nasr, to commemorate their partnership on the building of Thaicom's new generation software-defined high throughput satellite at 119.5 degrees East. The ceremony was held at the French Ambassador's

Residence in Bangkok, Thailand, on November 16, 2023. Thaicom has selected Airbus Space Systems to design and manufacture its new satellite, as well as offer ground control segment components. Airbus will provide one of its latest designed satellites, a fully reconfigurable OneSat which is capable of adjusting the coverage area, capacity, and frequency "on the fly". This partnership with Airbus marks an important milestone for Thaicom as the satellite will provide ubiquitous access to broadband services both in the government and the private sector across the Asia Pacific. It will also enhance people's lives as well as capture new space innovations in the future. Airbus plans to deliver the satellite in 2027.

Azercosmos and Brazilian Space Agency sign MOU for Space Initiatives

November 22, 2023 – Azercosmos, the Space Agency of the Republic of Azerbaijan, and the Brazilian Space Agency (AEB) have signed a Memorandum of Understanding (MoU) on space cooperation. The MoU envisages Brazil-Azerbaijan collaboration in space science, technology, and application and will serve as an instrument to establish a framework for future cooperation in the domain of outer space. Under this MOU, Azercosmos and AEB will explore ways to support socio-economic development in both countries through satellite imagery data in areas related to: agriculture, water resources, urban and regional planning, environmental assessment, land cover mapping, disaster monitoring, mapping of natural resources, maritime and terrestrial monitoring, geospatial systems, as well as communications on satellite ground stations. The two organizations will also study the use of academic and training opportunities for personnel and broaden student participation at the development program from both countries in the fields of space science, technologies, and applications.

Airbus and SATLANTIS Sign a MoU to Develop Infrared Capability for the Spanish MoD

November 21, 2023 – Airbus and SATLANTIS have signed a Memorandum of understanding (MoU) to develop infrared capability for the Spanish MoD. This collaboration will be the first step towards a future Spanish infrared Earth observation system for governmental purposes and dual use. The Agreement will help foster technological leadership in Earth observation for Spain. The collaboration between the two companies will see the integration of optical and thermal cameras developed by the SATLANTIS group on satellites designed and integrated by Airbus in Spain. This synergy represents an ideal combination of national resources, taking advantage of SATLANTIS' experience and agility in the development of cameras for the acquisition of optical and thermal Earth observation data, and Airbus in Spain's extensive experience as a large space systems integrator. A key element of this infrared capability will be the development of innovative satellite solutions incorporating high-resolution capability in the MWIR (Mid-Wave Infrared) and LWIR (Long-Wave Infrared) thermal bands. This joint project aims to provide governments with an unprecedented capability at an affordable price for high-resolution thermal observation and data collection, which will be fundamental in addressing critical challenges in areas such as national security, natural disaster management and environmental monitoring.

Thales Alenia Space to Provide Communication Transponder for Turkey's First Lunar Mission

November 21, 2023 – Thales Alenia Space has signed a contract with TÜBİTAK Space Technologies Research Institute (TÜBİTAK UZAY) to provide a Communication Transponder for AYAP-1, Turkey's first lunar mission. The Lunar Research Program (AYAP) is an integral part of the National Space Program led by the Turkish Space Agency, with TÜBİTAK UZAY in charge of the design, development, integration, test, launch and operations of the AYAP-1 spacecraft. With this project, Turkey aims to successfully carry out its first lunar mission and become one of the few countries that can conduct activities on the Moon with its own capabilities. Thales Alenia Space will provide an S-Band TT&C (Tracking, Telemetry and Command) Transponder for the AYAP-1 spacecraft, a key unit to establish a communication link between the spacecraft and the ground station. The TT&C transponder is in charge of receiving the commands sent by the ground station to control the spacecraft, and sending back the telemetry with the vital information on the status of the spacecraft. The TT&C link is also

instrumental to monitor the position of the spacecraft by measuring the distance to the ground station.

Viasat's Broadband Arctic Extension Closer as Spacecraft Complete Key Tests

November 21, 2023 – Viasat, Inc. has announced the second satellite in the upcoming Arctic Satellite Broadband Mission has completed thermal vacuum testing at Northrop Grumman's Dulles, VA, site: a significant milestone as the project looks to connect the Arctic region with high-speed broadband in the second half of 2024. The mission, led by the Space Norway subsidiary Heosat, will see two satellites deployed in a highly elliptical orbit (HEO) in the world's first HEO mission carrying a broadband commercial service payload. The two satellites – ASBM-1 and ASBM-2 – will host Viasat's GX-10a and GX-10b Ka-band payloads, extending Viasat's high-speed global network across the Arctic region. The spacecraft are designed to integrate as part of Viasat's wider satellite fleet and extend the coverage of its Ka-band network beyond that available from geostationary satellites. The payloads will be Viasat's first in non-geostationary orbit and will become a key element of its co-operative hybrid network. Once launched, these new payloads will increase Viasat's fleet size to 20, with an additional eight under development. The ASBM-1 and ASBM-2 spacecraft will now undergo their final testing and readiness activities. Once complete, they will be transferred to Vandenberg Space Force Base, California and launched together on a SpaceX Falcon 9 rocket in mid-2024. The company will share further details on the launch schedule once confirmed.

Skyrora and Spirit to Enhance Future UK Launch Capability

November 21, 2023 – Skyrora and Spirit AeroSystems have announced collaboration on orbital launch capability. The companies celebrated the announcement on the conference's opening day in Belfast, home to Spirit's largest UK manufacturing facility. UK-based, launch-vehicle manufacturer, Skyrora is developing an agile, end-to-end, launch service to provide access to space for small satellites globally. Having conducted a test launch of the suborbital Skylark L vehicle in October 2022, as part of the company's incremental learning approach to launch, Skyrora is well on track to become the first UK company to vertically launch satellites from the UK, expecting to conduct up to 16 launches per year once operating at scale.

SES's Fifth and Sixth O3b mPOWER Satellites Successfully Launched

November 12, 2023 – SES announced today that two additional O3b mPOWER satellites were successfully launched into space by a SpaceX Falcon 9 rocket from Cape Canaveral Space Force Station in Florida, United States, at 4:08pm local time. With the fifth and sixth O3b mPOWER satellites launched, the system completes the six medium earth orbit (MEO) satellites required to offer high-performance network services delivering high throughput, predictable low latency, unique flexibility and service availability. Last month, SES announced it will add to the constellation two more satellites built by Boeing, bringing the total number of O3b mPOWER satellites to 13. The additional investment is expected to be covered within SES's existing committed CapEx envelope. The first four O3b mPOWER satellites launched in the last year have arrived at their target orbital position and are undergoing in-orbit checks, including a series of system validation tests encompassing both space and ground components. In 2023 alone, SES has rolled out and tested more than 160 O3b mPOWER terminals over the existing O3b constellation to serve mobility, telecom, government, and enterprise customers. O3b mPOWER commercial service is expected to begin during the second quarter of 2024.

hiSky Announce the Successful Launch of "Ella1" Ka and Ku band LEO Nanosatellite

November 12, 2023 – hiSky announced the successful launch of the "Ella1" nanosatellite into orbit, utilizing the 4U Lemur platform designed, built, and operated by Spire Global, and equipped with a Ka and Ku payload to showcase hiSky's Smartellite™ multi-orbit network-as-a-service. The 'Ella1' journey will start with in-orbit commissioning phase and advance bus checkout to verify that all the nanosatellite components are functional, this first stage of tests will take approximately 3 weeks. During the second stage hiSky will be carrying out payload on-orbit performance verification and

validation, checking the Ka and Ku payloads with hiSky's ground stations. This stage is scheduled for the 3 weeks following the initial testing period. The third stage of Ella1's journey will be dedicated to showcasing hiSky's Smartellite™ ground network operating multi-orbit connectivity. This remarkable achievement not only highlights our commitment to advancing space exploration but also signifies a groundbreaking leap in satellite technology, serving as a testament to hiSky's mission and dedication.

Thales Alenia Space Unveils Project to Develop Space Smart Factory

November 9, 2023 – Thales Alenia Space unveiled its project to build the Space Smart Factory, one of the largest digital and reconfigurable facilities of its kind in Europe. The facility will form part of a system of interconnected space factories in Italy, employing advanced technologies to build satellites of different sizes for various fields and applications. Over €100 million is being invested in the Space Smart Factory, including funding from the Italian Space Agency (ASI) through the PNRR. This new state-of-the-art facility will be located at Rome's technology hub, the Tecnopolo Tiburtino, which already houses 150 companies, mostly small and medium enterprises. Designed by EOS S.r.l., the factory will be built by CBRE | Hitrac, a global leader in critical infrastructure technologies and services spanning the full lifecycle of advanced technology systems. The Space Smart Factory will employ automation and digital processes to offer high production capacity for advanced satellites, both in the microsatellite and small satellite sector, including the PLATiNO and Nimbus satellite families, and for quick turnaround of innovative, modular, high-performance platforms for high-revisit constellations. Featuring state-of-the-art digital technologies, the Space Smart Factory can be reconfigured to suit different production requirements. It will be equipped with highly versatile and flexible clean rooms to support integration and testing of a wide range of satellites of different type and purpose such as Earth-Observation, Navigation, and Communications.

Momentus and RIDE! Space Collaborate to Connect SmallSat Operators to In-Space Services

November 9, 2023 – Momentus Inc. has signed an agreement with RIDE! Space to make its services available through the RIDE! Space platform. Momentus and RIDE! Space recently signed a services agreement to fly Gaindesat and Djibouti payloads on a single mission in 2024. RIDE! is a New Space company based in Paris, France, and founded in 2020. Besides its platform, RIDE! provides a range of launch services – operated by mission managers in charge of multi-deployment analysis – including launch RFP procurement strategy, launch integration, radiofrequency registration, or space insurance benchmarking. RIDE!'s strong ecosystem is composed of 40+ launch vehicles and OTVs, as well as 250+ satellite operators in more than 50 countries.

Starlab Space Station to Boost European Space Agency Ambitions in Low-Earth Orbit

November 9, 2023 – The MoU outlines that the parties intend to commonly foster science and technology development and explore the potential for collaboration in conjunction with post-International Space Station low-Earth orbit (LEO) destinations. The collaboration will initially focus on, but is not limited to, exploring opportunities for sustained access to space for Europe through the Starlab space station. This agreement reflects ESA's ambition to enable a smooth transition from the International Space Station towards the sustained exploitation of human and robotic infrastructures in low-Earth orbit after 2030, including through commercial services. In the past, Airbus has supplied ESA with iconic spacecraft such as the International Space Station Columbus Module, all five Automated Transfer Vehicles (ATV) and – most recently – the European Service Module (ESM) for Orion, Europe's contribution to NASA's Artemis missions back to the Moon. In August 2023, Voyager and Airbus first announced an agreement to form a transatlantic joint venture to support a continuous human presence in low-Earth orbit and a seamless transition of microgravity science and research opportunities in the post-International Space Station era. Starlab is also expected to have a European affiliated joint venture to directly serve the European Space Agency and its member state space agencies.

Firefly Aerospace Announces Agreement with Fleet Space to Deliver Seismic Payload to Far Side of the Moon

November 8, 2023 – Firefly Aerospace, Inc. announced a new agreement with Fleet Space Technologies, an Australian space exploration firm, to deliver and operate Fleet's Seismic Payload for Interplanetary Discovery, Exploration, and Research (SPIDER) on the far side of the Moon. In addition to payloads from NASA and the European Space Agency, the Australian-backed SPIDER payload will fly on Firefly's Blue Ghost lander as part of Firefly's second lunar mission in 2026. Fleet Space's SPIDER payload is part of the Australian Space Agency's Moon to Mars initiative that's aligned with NASA's Artemis program to support future habitation on the Moon. Upon deployment of the payload, Firefly's Blue Ghost lunar lander will provide ongoing power and communications, enabling SPIDER to capture seismic data from the lunar surface for up to 14 days. This data will offer insights into the geological properties of the lunar subsurface and its mineral profile, such as water ice, that can support lunar infrastructure and further regolith exploration.

AndØYa Spaceport to Become the First Operational Orbital Spaceport in Continental Europe to Finalize the Construction of the Launch Site.

November 2, 2023 – Andøya Spaceport celebrated the opening of the first operational spaceport in continental Europe, which will become the first launch site of the European launch service company Isar Aerospace. The spaceport is located at Nordmela on the Norwegian island of Andøya and is in the final stages towards operating capability. In an official ceremony, H.R.H. Crown Prince Haakon inaugurated the spaceport, an event which also marks a crucial milestone on Isar Aerospace's path to its first test flight. Fully constructed, the spaceport will host several launch pads. Isar Aerospace has exclusive access to the first launch site, which was built to Isar's specifications, including a launch pad, payload integration facilities as well as a mission control center. This set-up guarantees greatest flexibility and planning security for Isar Aerospace and its clients in bringing small- and medium-sized satellites to space. The launch site will support the two-stage launch vehicle Spectrum, which is set to carry out final stage testing.

REPORTS

Euroconsult Releases 'Prospects for Direct to Handheld and IoT Markets' Report

November 30, 2023 - The latest edition of Euroconsult's *'Prospects for Direct to Handheld and IoT Markets'* unveils the developing potential of the satellite direct-to-device market, with projections indicating that direct-to-phone services could connect nearly 130 million average monthly users by 2032. Euroconsult's new comprehensive market intelligence report significantly expands on the legacy of earlier reports in the series. It delves into the dynamic landscape of three crucial satellite communication market segments: traditional handheld phones, direct-to-phone connectivity, and Internet of Things (IoT). The report provides a new level of detailed analysis covering market developments, major applications, equipment solutions, and the growth drivers and challenges inherent to each segment.

New Report: The Pulse of the Satellite Industry: Questions and Answers for Senior Executives 2023

November 28, 2023 – This report looks at the questions that industry leaders in the satellite communications (SATCOM) industry want answers to in 2023. It is based on a survey conducted by NSR, an Analysys Mason company. Download the report for free. The results of NSR's annual survey are a unique source of information about industry trends and issues that demand attention. This year's survey elicited around 200 responses, illustrating the industry's growing curiosity and concern about the future of satellite and space technology.

NSR Releases Space Travel & Tourism (STT) Market Report, 5th Edition

November 14, 2023 – NSR's Space Travel & Tourism (STT) Market Report, 5th Edition continues as the industry-leading analysis of this emerging global market. This report provides a complete

assessment, status update, and analysis of the Suborbital, Orbital, and Beyond Earth space travel & tourism markets, with a thorough analysis and a 10-year forecast for the global opportunity. The report answers critical questions regarding the Space Travel & Tourism market.

Soaring Ground Segment Market Forecast to Reach Cumulative Value of $80 Billion by 2032
November 7, 2023 – The latest *Ground Segment Market Prospects (04th Edition)* from Euroconsult, leading space consulting and market intelligence firm, reveals promising trends in the ground segment market from 2023 to 2032. However, the situation is concentrated, regarding the considered market segments. Euroconsult's market intelligence predicts that non-geostationary (NGSO) constellation deployments will be a primary catalyst, leading to an increase by a 2.3 factor in the number of commercial user terminals by 2032, translating to an impressive 8.7% Compound Annual Growth Rate (CAGR). Flat Panel Antennas (FPA) also represent a massive growth area and will account for 74% of the sold commercial user terminals by 2032 compared to about 45% in 2022. The report highlights how the commercial user terminal market is benefitting from robust growth across various verticals. This expansion ranges from achieving universal broadband access to catering to the needs of mobility industries, enterprises, and government clients. Market demand is encouraging the development of terminals that seamlessly switch between low Earth orbit (LEO), medium Earth orbit (MEO) and geostationary orbit (GEO), enhancing performance and resiliency

UPCOMING EVENTS

Middle East Space Conference, January 8-10, Muscat, Oman,
https://www.euroconsult-ec.com/euroconsult-events/middle-east-space-conference/

Convergence India 2024, January 17-19, New Delhi, India, http://www.convergenceindia.org

PTC'24, January 21-24, Honolulu, Hawaii, USA, https://www.ptc.org
Register today for the premier digital infrastructure, telecommunications, and ICT event of the year! Join top-level executives, technologists, thought leaders, investors, and more, as we set the business agenda for the year and set the course for the future of the industry. We've curated an experience that promises to elevate your professional growth and strategic planning.

APSCC @PTC'24: SPACE STRATEGIES FOR TELCOS IN ASIA/PACIFIC
January 23, 2024
2:00 PM-2:45 PM HAT
MPCC, South Pacific 4
Hilton Hawaiian Village, Hawaii

A broad-based panel looking at the next steps in the evolution of satellite communications as vital global service.

Moderator: Gregg Daffner, CEO, GapSat / Emeritus President, APSCC
Timothy Logue, Principal, TJLNova Consulting

Speaker: Ronald van der Breggen, Chief Commercial Officer, Rivada Space Networks
Josh Reed, Principal Solution Sales Specialist, Telstra InfraCo
Alexander Schumann, General Manager, Microcom

Global Space and Technology Convention, February 14-16, Singapore, https://www.space.org.sg/gstc/

Asia Video Summit, March 13-14, Hong Kong, https://asiavideosummit.com/

Satellite 2024, March 18-21, Washington DC, USA, https://www.satshow.com/

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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.