APSCC Monthly e-Newsletter
September 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 August 1 to August 31.

INSIDE APSCC

APSCC 2023 Satellite Conference & Exhibition (APSCC 2023), October 10-12, Sheraton Imperial Kuala Lumpur, Malaysia

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!

Register by September 22 and enjoy **Advance Registration Rate** at www.apsccsat.com/attend.

APSCC Welcomes Ubiqconn as New Member

Ubiqconn is a leading provider of rugged mobile solution focus on key industries, such as SATCOM, Agriculture, Logistics, Maritime, Transportation and Government. We aim to provide a value-added ODM/OEM services for key players and start-ups in different vertical markets, as well as rugged solutions for its own brand RuggON. Our mission starts with understanding customer's perspective and expectations to develop solutions that solve customer's pain points. We're continuing to uphold our vision of "ubiquitous connection" by connecting with industries, people, things, supply chains and ecosystem, while being agile fully implement the zero-to-market business model to realize the customer's vision. Visit https://www.ubiqconn.com/en/ for more information.

SATELLITE BUSINESS

SES and Telemor Expand Partnership to Deliver Enhanced Connectivity Services in Timor-Leste

August 31, 2023 – Telemor (Viettel Timor Unipessoal Lda), the leading mobile operator in Timor-Leste, and SES announced the renewal of their eight-year partnership which involves enabling Telemor to deliver upgraded mobile connectivity to residents and businesses in Timor-Leste. Under the new agreement, Telemor will increase its service uptake substantially on SES's O3b constellation operating in medium earth orbit (MEO). Partners since 2015, Telemor has been leveraging O3b's unique combination of reliable high throughput and low latency to deliver high-quality mobile data services to its subscribers in the country. With mobile phone subscriptions in Timor-Leste reported at 106.5 per 100 people in 2023, Telemor will continue matching users' increasing needs for more bandwidth and level up the connectivity experience to serve up to 1.4 million consumers as well as businesses. Subscribers will be able to seamlessly experience video applications and voice communications whether from ultra-connected urban areas or remote villages. In particular, the service uptake will enable uninterrupted access to data-hungry online services delivered through various Content Delivery Networks (CDNs) to serve large volumes of daily online requests from subscribers.

Korean Air Selects Viasat Inflight Broadband Service for Airbus A321neo Fleet

August 29, 2023 – Viasat, Inc. has been selected as the inflight connectivity provider for Korean Air. Under the agreement, the Korean flag carrier has selected Viasat's award-winning inflight broadband solution for its upcoming fleet of Airbus A321neo aircraft. Korean Air will receive a total of 30 Airbus A321neos by 2027 as part of a fleet modernization plan, all of which will be delivered linefit with the global satellite company's connectivity solution. These will be operated on short and mid-haul flights between the airline's main hub in Seoul and destinations across the Asia region. The reliable, consistent, and high-speed inflight connectivity will enable Korean Air to meet passenger expectations for staying connected, browsing the internet, enjoying social media, streaming video and audio, shopping online, catching-up with work and more, all from the comfort of their seats. The selection was secured in partnership with hardware provider Safran Passenger Innovations (SPI) to develop the solution required by Korean Air. This included combining inflight connectivity (IFC) airtime and Safran's Inflight Entertainment and Connectivity (IFEC) hardware. This partnership will enable Korean Air to extend its digital passenger journey, providing opportunities for direct engagement with passengers as well as enhancing their inflight experience.

Lockheed Martin Australia Selected as Australian Defence Force's Strategic Partner for AIR6500

August 28, 2023 – Lockheed Martin welcomed today's announcement by the Department of Defence on being selected as the strategic partner to steward AIR6500 Phase 1 (AIR6500-1). AIR6500-1 will provide the Australian Defence Force (ADF) with a Joint Air Battle Management System (JABMS) that will form the ground-breaking architecture at the core of the ADF's future Integrated Air and Missile Defence (IAMD) capability. This first-of-its-kind system will provide greater situational awareness and defence against increasingly advanced air and missile threats, as well as give the ADF increased levels of interoperability with the United States and allied partners. Since 2015, Lockheed Martin Australia has been highly dedicated to supporting ADF's vision to transform into a fully integrated and IAMD capable force through AIR6500-1.

MEASAT and Parcel365 to Accelerate Rural Entrepreneurship in Partnership with Corporate Sector

August 24, 2023 – MEASAT officially activated the Program Transformasi Usahawan (PTU) segment of the KampungDigital365.com initiative today, in partnership with Parcel365 Sdn Bhd and M2B Services Sdn Bhd (collectively "Parcel365"). The activation was marked by a launch event that included the introduction of the PTU platform, which enables corporations and individuals to support the sales of local products, as well as training and creation of employment for villagers. The PTU will first focus on empowering women entrepreneurs to uplift themselves and their communities via the digital economy, while subsequent phases will target youths and farmers, among others. Participants in the PTU will be provided startup capital, tools and access to CONNECTme NOW high-speed broadband to get their business activities off the ground while being trained in eCommerce and marketing skills to sustain their businesses successfully. In the first phase, the training is targeted at five Kampung Orang Asli (KOA) sites in Pahang, namely KOA Titom, KOA SOP, KOA Simoi Lama, KOA Sekam Batu 17 and KOA Kedut. The inaugural phase targets to train 125 entrepreneurs, which in turn supports 2,500 villagers from the Orang Asli community, at a projected investment of RM500,000 for all expenses across five months.

Intelsat Wins U.S. Defense Department Low Earth Orbit Satellite Opportunity

August 23, 2023 – Intelsat has been tapped to provide commercial satellite communications bandwidth, equipment and services to the U.S. Defense Department, as part of a 10-year indefinite delivery, indefinite quantity (IDIQ) U.S. Space Force contract. "As a trusted provider of resilient satellite communication services to the U.S. Government for 60 years, Intelsat is uniquely positioned to offer value-added solutions to the Defense Department through this important program," said Dave Micha, president of Intelsat Government Solutions. "Our partnerships with LEO operators, combined with our fleet of more than 55 GEO satellites, 80 global teleports, security operations center and the largest terrestrial network in the world, positions Intelsat to provide strong but

flexible communications during critical missions." The multi-award, multi-participant contract is part of the Proliferated Low Earth Orbit (pLEO) program and is valued up to $900 million over 10 years. The Defense Department pLEO program provides a network of LEO communication satellites, which provides reliability even if there is disruption of a small number of assets.

SES and We Are IT to Deliver Internet Connectivity to 43 Commission of Elections Sites across Mindanao, the Philippines

August 23, 2023 – SES and We Are IT (WIT), the Philippines' leading telecommunications service provider, announced their first partnership to deliver connectivity services via the SES-9 satellite to 43 Filipino Commission of Elections (COMELEC) offices. The partnership will see SES enable WIT to deliver reliable and secure connectivity to COMELEC offices in Mindanao, the second-largest island in the Philippines. WIT is the largest VSAT satellite network service provider in the Philippines, with two decades of experience and expertise in delivering satellite-enabled connectivity to government entities, businesses and individuals in the country. WIT will use SES-9 to meet the growing connectivity requirements for mission-critical government operations and digital services in remote regions of the country.

Hughes Awarded Space Force IDIQ Contract for Low Earth Orbit (LEO) Satellite Services

August 22, 2023 – Hughes Network Systems announced that it has been awarded a five-year, Indefinite Delivery Indefinite Quantity (IDIQ) contract by the U.S. Space Force for proliferated Low Earth Orbit (LEO) satellite-based services. Under the IDIQ vehicle, valued at up to $900 million, U.S. Department of Defense, other federal agencies and international coalition partners can procure fully managed, low-latency LEO services from Hughes leveraging capacity on two constellations: OneWeb and EchoStar Lyra™. Hughes previously announced a distribution agreement with OneWeb Technologies Inc., a wholly owned subsidiary of OneWeb, to deliver managed, wideband LEO services to the DoD; those services are now available under the IDIQ and the GSA Schedule. Also available under the IDIQ are narrowband services over the EchoStar Lyra constellation, the system that EchoStar, parent company of Hughes, is developing for Internet of Things (IoT) connectivity and ongoing market development that includes 5G non-terrestrial networks (NTN).

Space Development Agency Taps Mynaric for Optical Ground Station Project

August 22, 2023 – Mynaric has been selected by the Space Development Agency (SDA) to contribute to an optical ground terminal demonstration. The research and development program's mission, slated for 2025, is to demonstrate the successful connection between various space-based optical communications terminals (OCTs) and an optical ground station designed by Mynaric. The principal purpose of this research and development program is to collect data and record findings from the connection between various space-based optical communications terminals and the optical ground station. This program will serve as risk reduction for follow-on demonstrations focusing on communications between the optical ground station and the Tranche 0 Transport Layer Space Vehicles.

Malaysia Airlines Selects Viasat to Enhance In-Flight Experience on Board its New Boeing 737-8 Fleet

August 17, 2023 – Viasat Inc. announced Malaysia Airlines - the national carrier of Malaysia - has selected the company to outfit the airline's new Boeing 737-8 fleet with its leading wireless In-Flight Entertainment (IFE) system. In the pipeline as part of its connectivity strategy, Malaysia Airlines will also introduce high-quality internet connectivity on its 737-8 aircraft. The agreement encompasses factory installation of Viasat's equipment on its aircraft, the first of which is expected to be delivered to Malaysia Airlines later this month. Through this partnership, Malaysia Airlines' customers will enjoy an enhanced and curated in-flight experience through the airline's wireless IFE system, MHstudio, which provides them access to over 500 on-demand entertainment options and personalized shopping experiences at their convenience. Once introduced, high-speed internet

connectivity on Malaysia Airlines' 737-8 aircraft will allow customers to stay connected throughout their journey. With anticipated flight routes across Malaysia and Southeast Asia for the new fleet, Malaysia Airlines will leverage Viasat's Ka-band satellite network in the region, including, once launched and in service, ViaSat-3 APAC.

Viasat Real-Time Earth Opens Ground Station in Japan

August 14, 2023 – Viasat Inc. announced the opening of a Real-Time Earth (RTE) ground station in Hokkaido, Japan, now enabling RTE customers the ability to downlink Ka-band payload data in the northwestern Pacific at the site hosted by RTE partner Infostellar. This new ground site gives RTE customers unique access to a strategic location that reduces the time it takes to deliver mission critical data. Viasat is establishing itself as a global leader in Ka-band support for low earth orbit (LEO) missions with its ability to downlink Ka-band payload data with a 7.3m full motion antenna at the Hokkaido site and is postured to support current and future government and commercial satellite programs. For Viasat, the Hokkaido ground station is a vital link in supporting high data rate remote sensing missions in polar and inclined orbits through the RTE network of Ka-band antenna systems.

Intelsat Completes C-Band Spectrum Clearing for 5G Deployment

August 14, 2023 – Intelsat will receive nearly $3.7 billion in the fourth quarter after completing C-band frequency clearing, providing future strategic opportunities for the company and its shareholders. The FCC C-Band Transition Order set a deadline to clear the spectrum by December 2025 but offered incentive payments to satellite operators if cleared before December 2023. With the validated certification now complete, Intelsat will receive accelerated relocation payments totaling $3.67 billion.

SES Completes FCC's C-Band Transition Clearing and Relocation Plan in the U.S.

August 10, 2023 – SES announces today the U.S. Federal Communications Commission (FCC) has validated the certification of SES's Phase II accelerated C-band clearing and relocation activities. With this milestone, and following the successful completion of its Phase I activities in 2021, SES has fulfilled its commitment to the FCC's program to clear a portion of the C-band to allow the rapid rollout of 5G services across the United States. With the help of trusted partners across the U.S., SES has completed all of its Phase II C-band clearing and relocation requirements and all transition activities put forth in its Transition Plan. In accordance with the FCC Report and Order issued on 3 March 2020, SES has satisfied the Phase II relocation requirements in advance of the 5 December 2023 deadline and is now eligible to receive the accelerated relocation payment of $2.99 billion (before tax of 18-19%). SES expects this payment to be made in Q4 2023. SES received the FCC validation of its Phase I accelerated C-band-clearing activities in 2021 and secured the first accelerated relocation payment of $1 billion in the subsequent year.

MEASAT Provides Astro Kasih Hostels with CONNECTme NOW Service

August 10, 2023 – MEASAT is partnering with Astro Malaysia Holdings Berhad ("Astro") to provide complimentary CONNECTme NOW high-speed broadband services to two Astro Kasih Hostels in East Malaysia. The initiative currently benefits over 200 primary school students from remote hostels in SK Magandai (Kota Marudu) in Sabah and SK Sungai Paku (Kapit) in Sarawak. MEASAT is installing CONNECTme NOW satellite broadband with speeds of up to 100Mbps at participating hostels. Hostels that do not have grid power will also be installed with solar power infrastructure to support the CONNECTme NOW equipment. The social impact of this programme will be reviewed from time to time to determine ways to increase its impact.

Panasonic Avionics Unveils Major Expansion to Geo Satellite Connectivity Network

August 10, 2023 – Panasonic Avionics Corporation announces a major expansion of its global connectivity network with the addition of new and expanded GEO (geostationary) Ku-band satellite capacity that delivers higher-speed in-flight internet connections for airlines and their passengers.

The world's leading supplier of in-flight entertainment and communication systems is adding new HTS (High Throughput Satellites) and XTS™ (Extreme Throughput Satellites) to its connectivity network that will enhance coverage over North, Central and South America, the North and South Atlantic Ocean, Europe, the Middle East, Arabian Sea, Africa, and the Indian Ocean. Panasonic Avionics is also expanding its current capabilities by introducing additional HTS capacity over China and Japan, building on existing connectivity investments in this region.

Marlink Simplifies Operations and Expands Network Flexibility with Upgrade to ST Engineering iDirect Dialog 2.5.1

August 8, 2023 – ST Engineering iDirect announced that service provider Marlink has upgraded to the latest Dialog® 2.5.1 release to take full advantage of its global network, increasing performance and simplifying the operations of customers across several markets. The latest release effectively combines the extra-high throughput from high resolution coding (HRC) and scaling from MRC, two former versions of Dialog's award-winning waveform Mx-DMA®, into a single return technology. The newly heightened performance of Mx-DMA MRC, combined with the scalability and efficiency for which Mx-DMA is known, creates a new level of service agility that is central to the business of service providers that support many markets, sectors and applications. The introduction of one operating system that serves the wide range of requirements across Marlink's maritime, enterprise and energy customers, means a single approach for link budgeting, frequency plans and configuration, plus a single hub device, that together enable truly simplified operations.

DISH Network Corporation and EchoStar Corporation to Combine

August 8, 2023 – DISH Network Corporation and EchoStar Corporation announced they have entered into a definitive agreement for DISH Network to combine with EchoStar Corporation in an all-stock merger at a fixed exchange ratio. The transaction was negotiated and recommended by Special Committees of Independent Directors of both companies and unanimously approved by the Boards of Directors of both companies. The transaction combines DISH Network's satellite technology, streaming services and nationwide 5G network with EchoStar's premier satellite communications solutions, creating a global leader in terrestrial and non-terrestrial wireless connectivity. Both companies have strong momentum, highlighted by DISH's 5G wireless network that now covers more than 70 percent of the U.S. with full commercialization underway and the successful launch of EchoStar's JUPITER 3 satellite with significant available capacity for converged terrestrial and non-terrestrial services. The combined company will be well-positioned to deliver a broad set of communication and content distribution capabilities, accelerating the delivery of satellite and wireless connectivity solutions desired by customers. The combined company will be headquartered in Englewood, Colorado. It will go to market worldwide under a suite of proven consumer and business brands, including DISH Wireless, Boost Wireless, Sling TV and DISH TV, as well as EchoStar, Hughes® and JUPITER™ satellite services, HughesON™ managed services and HughesNet® satellite internet.

Lynk and Vodafone Cook Islands to Begin Sat2Phone Service for Subscribers

August 8, 2023 – Lynk Global and Vodafone Cook Islands announced the start of an initial satellite direct-to-mobile phone service to Vodafone Cook Island subscribers using Lynk's "cell-towers-in-space." Vodafone Cook Islands is the second mobile network operator (MNO) in the world to launch Lynk's sat2phone technology as a subscriber service. Vodafone is the leading telecommunications services provider in the Cook Islands, offering mobile, broadband, fixed line, and a range of other telecommunications technology-based services and solutions across all inhabited islands. With a rich history and commitment to innovation, the company has played a pivotal role in shaping the digital landscape of the Cook Islands. The company has continuously invested in cutting-edge technologies and infrastructure to provide a seamless and reliable network for its subscribers. Whether it's voice calls, messaging, internet access, or enterprise solutions, Vodafone Cook Islands offers a comprehensive range of services designed to cater to individual, residential, and business needs.

OneWeb and IP Access International Sign Distribution Partnership Agreement to Deliver OneWeb-powered Services across U.S.

August 8, 2023 – OneWeb and IP Access International, a leading provider of terrestrial and space based mobile connectivity to enterprise and public safety markets, announced today that they have signed a Distribution Partnership Agreement to deliver high-speed, low-latency broadband connectivity across the United States. Under this partnership, IP Access International will seamlessly blend OneWeb's satellite services with all major terrestrial cellular providers in the U.S., providing resilient mobile communications through a single service plan and support center. This partnership makes OneWeb's LEO constellation the first to be integrated into IP Access International's SuperGIG™ service, a connectivity solution designed specifically for public safety and enterprise critical mobile operations that seamlessly aggregates terrestrial and space-based networks. OneWeb's LEO technology will complement, enhance and extend existing IP Access International services and enable robust connectivity in rural areas outside of cellular coverage areas, as well as in urban locations affected by events such as natural disasters and other conditions impacting connectivity.

Eutelsat and Thaicom to Partner for New Software-Defined Satellite over Asia

August 7, 2023 – Eutelsat Communications announces that its subsidiary Eutelsat Asia PTE. LTD. has signed a partnership agreement with Space Tech Innovation Limited (STI), a subsidiary of Thaicom, a leading Asian satellite operator, related to a new software-defined satellite (SDS) to be positioned at the 119.5° East orbital slot over Asia. Under this partnership, Eutelsat will expand its service over the continent. Eutelsat is committed to lease and operate the service for half of the capacity on the new satellite during its lifetime. The state-of-the art geostationary SDS will be procured by STI and will be one of a new generation of satellites offering instant in-orbit adjustment and seamless reconfiguration, optimising the use of the in-orbit resources to the benefit of both the operator and the customer. It is due to be delivered in calendar 2027. Through this satellite, Eutelsat will expand its in-orbit assets by some 50 Gbps of incremental capacity over Asia to address surging demand for connectivity in the region. The SDS's performance, combined with the high level of flexibility in terms of coverage, bandwidth allocation, and power levels, will assure an unparalleled quality of service to Eutelsat's customers in the Asian region. It will be fully compatible with Eutelsat and OneWeb's GEO / LEO multi-orbit approach.

Viasat Receives over $80M in Development Awards for Multi-Function AESAs across Warfighting Domains

August 7, 2023 – Viasat Inc., a global communications company, today announced it has received awards totaling over $80 million to develop Active Electronically Scanned Array (AESA) systems for ground, maritime, and space applications. AESA, a type of phased array antenna that offers greater flexibility and resilience to support military platforms, is often employed when multiple beams, low probability of intercept (LPI) and jamming resistance are required. Viasat is leveraging commercial AESA phased array antenna technology and products to meet these demanding defense requirements. The developments will allow Viasat's existing phased array technology to be extended and adapted to support defense operational environments and mission needs, enabling scalable, and highly flexible capabilities to be achieved at previously unattainable recurring cost.

Azercosmos Sustainably Extends Hosting Services with Chinese Emposat

August 3, 2023 – Azercosmos has reached one more hosting services milestone in its global expansion through agreement with Chinese Emposat, leading global aerospace infrastructure builder and operations service provider. In the course of a long-standing commercial partnership, Azercosmos has installed Emposat's 7.3-meter S/X-band terrestrial antenna at its Main Satellite Ground Control Station. It's worth noting that this is the second successful Hosting project after Emposat's 4.2m S/X-band terrestrial antenna, which is now rendering services via Azercosmos' Station. With this terrestrial-based configuration, Emposat will dynamically manage and optimise

space and ground resources to meet the changing needs of its customers with a "top assurance level" offer. This infrastructure will play a key role in realizing Emposat's vision of bringing high-performance, easily installed, affordable communications services to the industrial sector and advancing its teleport operations. With innovative and high performance in the ground segment, Emposat will provide a number of reliable and modern space-to-ground services for receiving accurate signals from satellites thanks to the antenna installed in Tier 4 certified Azercosmos' Ground Station.

RHEA, neXat and ST Engineering iDirect Start Product Phase for Secure Satcom Service

August 2, 2023 – The BeSecured Pooling & Sharing Service project has reached a new milestone with the start of the Product Phase for this secure satellite communication services pooling and sharing platform. Started on April 2023, the Product Phase is expected to result in the development of a product ready for operations by the end of 2024 and commercialization in early 2025. Led by RHEA Group, with neXat as service provider and in cooperation with ST Engineering iDirect, this platform will address governments' and institutions' needs for reliable and secure satellite communication services. The BeSecured Pooling & Sharing Service (BeSecured PSS) project has entered into the Product Development phase, which will lead to the commercialization of the service in 2025, following successful completion of the definition and technology phase. The project is co-funded by the European Space Agency (ESA) under its programme of Advanced Research in Telecommunications (ARTES) with the support of the Belgian Science Policy Office (Belspo).

Satcom Direct and Gilat Sign Strategic Agreement for Joint ESA Project to Expand Plane Simple® Portfolio

August 1, 2023 – Satcom Direct, the business aviation solutions provider, and Gilat Satellite Networks Ltd. have signed a strategic agreement to develop and supply new ultra-low profile electronically steered antennas (ESA) to support in-flight connectivity (IFC) for business, government, and defense. Available from 2025 and designed for optimized compatibility with the OneWeb low earth orbit (LEO) constellation, the hardware strengthens the Plane Simple® Antenna Series portfolio with the addition of the Gilat advanced ESA that will unlock the full broadband potential of OneWeb. The collaboration will see Gilat develop the antenna system while Satcom Direct Avionics, the Canadian hardware manufacturing division of SD, will work with OneWeb to develop the SD Modem Unit to harness the full potential of the LEO constellation. To meet soaring data demands, customers will also benefit from the antenna's full-duplex performance, a key capability in a small-form, power efficient device that allows data to be sent and received simultaneously.

BROADCAST

SES and Quanta Partner to Serve Sports and Events Customers in Latin America

August 10, 2023 – SES and Quanta, a leader in infrastructure, post-production, delivery, management and innovation capabilities for the audiovisual market, have announced their partnership that will see the companies interconnect their content delivery networks for sports and events customers operating in Latin America. As part of the agreement, Quanta's newly-inaugurated teleport in São Paolo has been interconnected with SES's hybrid distribution network and media centres to allow for simplified content delivery services to global and Latin American takers via satellite, IP and fibre networks. Sports and events customers will also be able to leverage post-production capabilities at Quanta's facilities, including commentary recording, graphics and advertisement.

Imagine SureFire Video Ad Server Launches in AWS Solutions Library

August 8, 2023 – Imagine Communications, a global leader in advertising and media software and solutions, announces that its SureFire™ video ad server is now available in the Amazon Web Services (AWS) Solutions Library. A broadcast-quality ad decisioning solution for OTT, SureFire leverages an advanced set of broadcast rules and audience data across CTV, FAST, AVOD, and addressable linear

platforms, enabling media companies to sell and fulfill campaigns across their entire audience and deliver a consistent, quality experience for both viewers and advertisers. The AWS Solutions Library enables customers to easily browse curated solutions built by AWS and AWS Partners for a broad range of industry and technology use cases. Whether organizations prefer off-the-shelf deployments or customizable architectures, the AWS Solutions Library enables fast discovery of AWS-vetted solutions and guidance that help rapidly address relevant business challenges. SureFire operates as a managed cloud service on AWS, so it has flexibility and scale to meet the needs of any media company. Auto-scaling enables SureFire to support millions of concurrent viewers, with sub-100ms response times and six 9s reliability even under heavy load. It uses the advertising industry-standard VAST and VMAP protocols to communicate broadcast-quality dynamic ad insertion instructions with AWS Elemental MediaTailor.

AVS Leverages Optimum Coverage of EUTELSAT 65 West A Satellite over Brazil to Expand Its Broadcast Services

August 7, 2023 – AVS, a leading Brazilian service provider and integrator in the public and private sectors, has signed multiple contracts with Eutelsat Communications (Euronext Paris: ETL) for capacity on its EUTELSAT 65 West A satellite. This partnership has allowed AVS to deploy public channels such as TV ALEPR, TV ALESC, TV ALEPE and TV ALBA on the EUTELSAT 65 West A satellite, avoiding interference generated by the activation of 5G, underway in the country. Brazil is implementing 5G in the 3.5 GHz band, which is currently used to support satellite TV services in the C-band. The planned C-band of EUTELSAT 65 West A is a single frequency band with a frequency range between 4 .5GHz to 4.8GHz, operating at 800MHz above the 5G operating frequencies in Brazil. Consequently, EUTELSAT 65 West A allows for cost-effective geographic expansion for broadcasters, as filters do not need to be installed to avoid 5G interference.

AFP and SES Extend Partnership for AFPTV Live Platform

August 1, 2023 – Agence France-Presse (AFP), a leading global news agency, is extending its partnership with SES, enabling its customers to continue leveraging the innovative AFPTV Live platform for real-time access to live news and events from around the world, both companies announced today. AFPTV Live, based on SES 360, offers a platform that enables users to access AFP's live video news feeds and deliver content to their news studios via IP in a simple and secure way. Customers can also plan their news coverage with real-time information, collaborative agenda features and a chat tool connecting them to AFPTV's Live editors. Since the platform's launch in 2018, AFP and SES have introduced numerous new features to AFPTV Live to optimise the user experience and capabilities of the platform, making it the first of its kind to offer advanced features such as replaying, refeeding, downloading and clipping live content from a single user interface.

LAUNCH / SPACE

Viasat Provides Status of Inmarsat-6 F2

August 24, 2023 – Viasat Inc. confirmed that its Inmarsat-6 F2 (I6 F2) satellite, which was launched on February 18, 2023, has suffered a power subsystem anomaly during its orbit raising phase. At this stage, Viasat and Airbus, the satellite's manufacturer, are working to determine the root cause of the anomaly and assess whether the satellite will be able to perform its mission. Airbus has advised that this anomaly is an unprecedented event; none of its geostationary telecommunication satellites have ever suffered a failure in orbit. It is important to note that the I6 F2 anomaly does not impact ongoing customer services, and Viasat does not anticipate that it will materially affect the financial outlook for revenue and Adjusted EBITDA growth discussed in our letter to shareholders dated August 9, 2023. The manufacturing and launch costs of the I6 F2 satellite were insured and near-term cash positions are expected to improve. The twin Inmarat-6 F1 satellite (I6 F1), which was launched in December 2021, is operational and continues to perform as expected.

Rocket Lab Launches 40th Electron Mission, Successfully Flies Reused Engine

August 24, 2023 – Rocket Lab USA, Inc. successfully launched a dedicated Electron mission for Capella Space (Capella). The mission demonstrated several significant milestones for Rocket Lab's reusability program, including an ocean splashdown of the Electron rocket's first stage and the successful flight of a previously flown Rutherford engine. The mission was also Rocket Lab's 40th Electron launch since the Company began launches in 2017, further cementing Electron's position as the leading commercial small launch vehicle globally. The 'We Love The Nightlife' mission lifted-off on August 24th at 11:45 am NZST from Rocket Lab Launch Complex 1 on New Zealand's Mahia Peninsula, deploying Capella's next-generation Acadia satellite for its synthetic aperture radar (SAR) constellation to a 640km circular low Earth orbit. As a recovery mission, Electron's first stage returned to Earth under a parachute after launch and splashed down in the Pacific Ocean several hundred kilometers down range from Launch Complex 1. Rocket Lab's marine recovery vessel will soon extract the stage from the ocean and transport it back to Rocket Lab's production complex for analysis and testing to inform future recovery efforts. In addition to recovering the booster, Rocket Lab launched a pre-flown 3D printed Rutherford engine for the first time. The engine previously flew on the first stage of the 'There and Back Again' mission, launched in May 2022. The engine performed on par with new Rutherford engines, completing a successful first stage burn.

India's Chandrayaan-3 Successfully Lands on the Moon

August 23, 2023 – Chandrayaan-3 launched from the Satish Dhawan Space Centre in Sriharikota Range (SDSC SHAR), India, on 14 July 2023 on a mission to demonstrate new technologies and to achieve India's first soft landing on another celestial body. The spacecraft arrived in lunar orbit on 5 August. On 17 August, the lander module separated from the propulsion module and soon after began its descent to the surface. On 23 August, after a nail-biting wait, ISRO confirmed that Chandrayaan-3's lander had successfully touched down in the Moon's southern polar region as planned. ESA is providing deep space communication support to the Chandrayaan-3 mission. Communication is an essential part of every space mission. Ground stations on Earth keep operators connected to spacecraft as they venture into the unknown. Without ground station support, it's impossible to get any data from a spacecraft, to know how it's doing, to know if it is safe or even to know where it is. For the Chandrayaan-3 mission, ESA is coordinating routine support from its Kourou station in French Guiana and from Goonhilly Earth Station Ltd in the UK. These stations compliment support from NASA's Deep Space Network and ISRO's own stations.

Lockheed Martin Selected to Deliver 36 Small Satellites to Advance Space Development Agency's Communications Network

August 21, 2023 – The Space Development Agency awarded Lockheed Martin a firm-fixed price agreement valued at approximately $816 million to build 36 Tranche 2 Transport Layer (T2TL) Beta satellites. T2TL is part of an overarching plan to strengthen deterrence with more resilient space architectures for beyond line-of-sight (BLOS) targeting, data transport, and advanced missile detection and tracking. The T2TL Beta variant satellites will work in tandem with SDA's Tranche 1 and Tranche 2 networks. They will advance the initial warfighting capability with targeted technology enhancements, mission-focused payload configurations, and increased integration. SDA awarded Lockheed Martin an agreement worth approximately $816 million for 36 Tranche 2 Transport Layer satellites.

Equatorial Launch Australia Signs Multi-Launch Contract with Innospace to Conduct Orbital Launches from Arnhem Space Centre

August 17, 2023 – Equatorial Launch Australia (ELA) has today signed a multi-year, multi-launch contract with Korean aerospace company, INNOSPACE, for a series of orbital launches from the Australian spaceport. The agreement will see the launch of several INNOSPACE rocket variants each carrying between 50kg and 500kg payloads into low earth orbit from the ASC across a five-year timeframe until Dec 2028. ELA is widely regarded as the most advanced multi-user commercial

spaceport in the world, and the signing of this contract has validated the business concept and development plans by securing INNOSPACE – the only hybrid-fuelled rocket company worldwide to have successfully launched into space – as the first commercial company to become a 'resident launcher' (long term tenant and regular launcher) at the Australian spaceport. The first launches by INNOSPACE from the ASC are expected to commence in early 2025. ELA previously had a three-launch contract with NASA. ELA has been working with the Australian Space Agency (ASA) to expand its existing Launch Facilities Licence (LFL) to support orbital launches from the ASC with a range of orbital rockets, differing azimuths and trajectories and a much wider array of propellant mixes and rocket configurations as part of its Phase 2 Development Plan. This work with the ASA will now expand to assist INNOSPACE to obtain its first Australian Launch Permit (ALP). This ALP approval process is expected to take between 6 and 14 months commencing later his year.

Rocket Lab Inks Dedicated Launch Deal with Japanese Earth Imaging Company iQPS

August 17, 2023 – Rocket Lab USA, Inc., a global leader in launch services and space systems, today announced it has signed a deal to launch an Earth observation satellite on Electron for the Institute for Q-shu Pioneers of Space, Inc. (iQPS), a Japan-based Earth imaging company. iQPS was originally manifested on another launch vehicle, but iQPS has now selected Rocket Lab to launch QPS-SAR-5 on a dedicated Electron mission to expedite the deployment. The launch is scheduled for lift-off in September 2023 and will carry iQPS's QPS-SAR-5 satellite named "TSUKUYOMI-I" into orbit on a dedicated Electron mission from Rocket Lab Launch Complex 1 in Mahia, New Zealand. The mission has been named "The Moon God Awakens" in acknowledgement of Tsukuyomi, the Japanese God of the Moon. QPS-SAR-5 is a synthetic-aperture radar (SAR) satellite that will join a constellation after QPS-SAR-6 already in orbit. iQPS's satellites are small, high-performance SAR satellites that use a lightweight, large, stowable antenna to collect high resolution images of Earth, even through clouds and adverse weather conditions. Ultimately, the iQPS constellation is planned to have 36 satellites capable of monitoring specific fixed points on Earth every 10 minutes.

Telesat Contracts MDA as Prime Satellite Manufacturer for Its Advanced Telesat Lightspeed Low Earth Orbit Constellation

August 11, 2023 – Telesat has announced that space technology company MDA Ltd. will build 198 advanced satellites for the Telesat Lightspeed Low Earth Orbit (LEO) program. Telesat also announced that Telesat Lightspeed is now fully funded through global service delivery taking into account the company's own equity contribution, certain vendor financing, and aggregate funding commitments from its Canadian federal and provincial government partners. By taking advantage of key technology advances, including MDA's industry-leading digital beamforming array antennas and integrated regenerative processor, the re-designed Telesat Lightspeed network will achieve increased network efficiency and enhanced flexibility to focus and dynamically deliver capacity to users. These technology advances allow each satellite to be slightly smaller than the satellites Telesat was previously considering while still maintaining the highest levels of service performance, resiliency and overall usable capacity in the network.

BlackSky Signs New Block Buy for Five Rocket Lab Launches

August 8, 2023 – Rocket Lab USA has today announced it has signed another block buy deal for five Electron launches with BlackSky, a leading provider of real-time geospatial intelligence and global monitoring services. Rocket Lab has launched six Electron missions for BlackSky since 2019, becoming the primary launch provider for BlackSky's constellation. With these five new launches added to the manifest, BlackSky has contracted more Electron launches than any other single commercial customer. The launches are expected to begin in 2024 from Rocket Lab's Launch Complex 1 in Mahia, New Zealand. BlackSky's next-generation Gen-3 satellites are designed to produce images with up to 35-centimeter resolution. Increased resolution and enhanced spectral diversity extend BlackSky's ability to provide real-time insights to its customers in a broad set of conditions, including nighttime, low light and challenging weather. The new BlackSky launches join a busy Electron manifest in 2024

featuring missions for commercial constellation operators Capella Space, Kinéis, Hawkeye 360, and Synspective, as well as a variety of government missions.

Pale Blue Expands Partnerships in Asia to Supply Water-based Propulsion Systems for Yonsei University

August 7, 2023 – Pale Blue announced it was awarded a new contract with Yonsei University in South Korea to provide the Resistojet (0.5U-sized water vapor) propulsion system for a pair of 6U satellites. The propulsion system will be used to do formation flying for a laser crosslink system between the two nanosatellites in LEO and conduct optical communication between the two satellites. The laser crosslink payload employs a deployable optical telescope in order to compensate for the compact bus capability of a typical CubeSat platform. With this novel design, a stable communication link can be achieved at a distance of up to 1000 km. The proposed data rate is at least 1 Gbps, which is a challenging objective given the efficient and low-cost nature of the systems. Asia is the capital of the rapidly growing space industry, and Pale Blue aims to boost the presence in this region as well as contribute to the development of space technologies. Throughout collaboration with Yonsei University, Pale Blue will expand the business by strengthening partnerships in Asia. The company will create mobility capabilities that are core to the space industry while providing the water-based propulsion systems to the global market.

Lockheed Martin Successfully Completes CDR for SDA's Tranche 1 Transport Layer Satellites

August 7, 2023 – Lockheed Martin and the Space Development Agency (SDA) successfully completed the Critical Design Review (CDR) for SDA's Tranche 1 Transport Layer (T1TL) program. The integrated system review validated that Lockheed Martin's T1TL ground and space designs meet all mission requirements and can proceed to production. The initial warfighting capability of the SDA's Proliferated Warfighter Space Architecture (PWSA), T1TL consists of 126 space vehicles divided into six orbital planes. Lockheed Martin is building 42 of those space vehicles for the transport layer constellation, which will provide assured, resilient, low-latency military data and connectivity worldwide to a full range of warfighter platforms using Link-16 waveforms and laser optical intersatellite links. During the CDR, which took place eight months after a successful preliminary design review, Lockheed Martin and SDA worked closely to thoroughly validate the company's T1TL satellite and ground designs, to include supplier designs. The CDR included various design validation tests and a successful system optical communications terminal interoperability test, in addition to many other analyses.

SKY Perfect JSAT and Intelsat Launched Horizons-4/Galaxy 37 to Provide Capacity over North America and Pacific

August 3, 2023 – SKY Perfect JSAT Corporation and Intelsat successfully launched a new satellite to satisfy the growing connectivity demands in the North America and Pacific region. Known as Horizons-4/Galaxy 37 ("H-4/G-37"), the satellite was launched aboard SpaceX's Falcon 9 launch vehicle from Cape Canaveral Space Force Station, Florida, U.S.A at 2:00 p.m. on August 3, 2023, Japan Standard Time (JST) and the satellite was separated from the launch vehicle at 2:33 p.m. JST. It will succeed and replace Horizons-1/Galaxy 13 in geostationary orbit at the 127 degrees West location. Operation is expected to start in the fourth quarter 2023. The H-4/G-37 satellite marks the fifth satellite by SKY Perfect JSAT and Intelsat in 20 years, following Horizons-1 (2003), Horizons-2 (2007), Intelsat 15/JCSAT-85 (2009) and Horizons 3e (2018). The H-4 Ku-band payload, which will be jointly owned by both companies, will provide capacity for mobility connectivity with expanded coverage over the Pacific Ocean, in addition to the United States, Mexico and the Caribbean. The G-37 C-band payload, which will be owned by Intelsat, will provide North American capacity for television media and telecommunication network customers.

EXECUTIVE MOVES

Fleet Space Technologies Appoints Isa Notermans as Chief People Officer

August 30, 2023 – Fleet Space Technologies, one of the world's fast-growth mineral space-tech companies, is delighted to announce Isa Notermans as its new Chief People Officer. This strategic appointment comes as the company continues to experience exponential growth following the successful completion of its Series C funding round. Isa Notermans brings to Fleet Space Technologies a rich background spanning over 17 years in people and culture, with a focus on technology-driven environments. Isa will oversee the recruitment of a large number of highly skilled positions in Australia and around the world as the company is expanding globally through a network of global offices. She most recently served as Chief HR Officer at Airtasker, a globally operating marketplace for services, headquartered in Sydney. Prior to this, she held the pivotal position of Global Head of People & Culture at Melbourne-based startup, Linktree.

Globalstar Appoints Dr. Paul Jacobs as Chief Executive Officer

August 29, 2023 – Globalstar, Inc. announced that Paul E. Jacobs, Ph.D., founder and CEO of XCOM Labs and former CEO and Executive Chairman of Qualcomm, has been appointed CEO of Globalstar, effective immediately. Dr. Jacobs has also been appointed to Globalstar's Board of Directors. He succeeds David Kagan, who will retire as Globalstar's CEO. Dr. Jacobs is an accomplished leader and innovator who brings to Globalstar deep wireless industry experience and a track record of driving innovation-led growth, including growing Qualcomm's revenues from $5.7 billion to $25.7 billion as CEO from 2005 to 2014 while adding approximately $50 billion to its market capitalization. As Globalstar's CEO, he will drive the Company's ongoing strategic initiatives to develop and deploy innovative solutions across terrestrial and satellite for customers around the world. In conjunction with Dr. Jacobs' appointment, Globalstar has also entered into a strategic perpetual licensing agreement for exclusive access to certain key XCOM technologies and personnel. The license covers a number of XCOM's novel technologies for wireless spectrum innovations, including XCOMP, XCOM's commercially available coordinated multipoint radio system. XCOMP delivers substantial capacity gains and other benefits in dense, complex, challenging wireless environments in sub 7 GHz spectrum. Globalstar also gains exclusive access to XCOM's peer-to-peer connectivity technologies that could have applications across cellular and satellite devices.

REPORTS

NSR Reports: Gaining Deeper Insights into the Space and Satellite Industry

August 8, 2023 – NSR's NewSpace reports empower businesses with expert insights on emerging trends and technologies, enabling clients to seize opportunities and navigate the dynamic space sector successfully. With a keen focus on Space Cloud Computing, Lunar Markets, Space Travel and Tourism, In-Orbit Services, Space Situational Awareness, Space ESG, Optical Satellite Communication, and Software Defined Satellites, these comprehensive analyses shed light on emerging trends, market dynamics, and cutting-edge technologies that are shaping the future of space exploration and utilization. Our expert analysis and research provide a comprehensive view of the New Space economy, enabling entrepreneurs, investors, and companies to make informed decisions and navigate the challenges of this exciting frontier.

UPCOMING EVENTS

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

The World Satellite Business Week (WSBW) and its subsequent, the Summit for Satellite Financing and Earth Observation Business, will take place from **September 11-15, 2023**, at the Westin Paris – Vendôme Hotel. WSBW is a leading global business space event, which gathers more than 1,500 business leaders and more than 230 executive-level speakers. ***APSCC members can register at the discounted rate of 30%: https://na.eventscloud.com/725950?discountcode=WSBW23APSCC***

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

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

Satellite Innovation 2023, October 17-18, Silicon Valley, CA, USA
https://2023.satelliteinnovation.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.