

APSCC Monthly e-Newsletter

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

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

INSIDE APSCC

Mark Your Calendar for APSCC 2019 on Nov 19 – 21 in Bangkok, Thailand! **Intercontinental Hotel Bangkok, Thailand**

APSCC is pleased to announce that the APSCC 2019 Satellite Conference & Exhibition will be held in Bangkok, Thailand on 19th – 21st November 2019. For the first time held in November as Asia's must-attend executive event for the satellite and space industry, APSCC 2019 will incorporate industry veterans and new players through the 3-day of in-depth conference program to a broader audience. For more information please visit www.apscclsat.com

Call for the 1st News Space Pitch Competition is Now Open!

APSCC is pleased to announce the 1st Annual New Space Pitch Competition will be held in Intercontinental Hotel Bangkok, Thailand on 21st November, 2019. It aims to encourage New Space startups to share their thoughts on developing and growing the New Space economy in Asia with established satellite operators, manufacturers, and investors. Please visit <https://apscclsat.com/newspace-competition/> and join us to share your innovations with industry experts! The application submission deadline is by **23rd August**.

SATELLITE BUSINESS

Intelsat and Lintasarta to Expand Internet and Mobile Access across Indonesia

July 1, 2019 - Intelsat has been selected by PT. Aplikasi Lintasarta, a data communication, internet service, and IT services provider, to support the deployment and expansion of Indonesia's broadband and wireless communications infrastructure, bringing reliable, consistent, and affordable connectivity to millions of Indonesians. Indonesia is home to the world's fourth largest population. Its citizens are widely dispersed, residing in more than 500 districts and 80,000 villages spread across approximately 6,000 inhabited islands. Under a new, five-year agreement, Lintasarta will use overlapping coverage from two of Intelsat's high-throughput satellites, Intelsat 33e and Horizons 3e, which cover the Asia Pacific and Pacific Ocean region. The satellites provide broadband, mobility, and government customers who operate in the region with unmatched performance, resiliency, and redundancy. The Indonesian government – working through its universal service organization (USO) agency Badan Aksesibilitas Telekomunikasi dan Informasi (BAKTI) – has committed to fostering social development and accelerating equitable economic growth by connecting 150,000 sites across the country by the end of 2023. In April 2019, Lintasarta was selected by Indonesia's Ministry of Communication and Information Technology to advance its USO program, "Internet Fixed Broadband and Mobile Cellular Backhaul over Indonesia via a GEO Fixed Satellite Services (FSS) System."

Hughes JUPITER System Selected to Power New Indonesian High-Throughput Satellite

July 1, 2019 - Hughes Network Systems, LLC announced that its JUPITER™ System has been chosen as the ground network platform for a new satellite over Indonesia. The contract for construction and operation of the 150 Gbps "Multifunctional Satellite" has been awarded by the Government of Indonesia, through its Ministry of Communication and Informatics, to the PSN Consortium led by PT Pasifik Satelit Nusantara (PSN), the first private satellite telecommunication and information service provider in Indonesia. Hughes will provide the ground system to enable broadband satellite connectivity across the island nation. In addition to PSN, the PSN Consortium includes Indonesian companies PT Pintar Nusantara Sejahtera, PT Dian Semesta Sentosa and PT Nusantara Satelit Sejahtera. Utilizing a JUPITER System operating over its

Nusantara Satu (PSN VI) High Throughput Satellite, PSN currently delivers broadband services to consumers and enterprises and powers 2,000 Community Wi-Fi Hotspots, providing satellite Internet access to one million Indonesians. Employing the advanced DVB-S2X industry standard, the JUPITER System is becoming the platform of choice by operators globally, delivering high capacity and efficiency for any satellite broadband implementation. A family of terminals can be readily configured for all customer markets – consumer, enterprise and government – and JUPITER System gateways can be scaled to the multi-Gbps capacity requirements of next-generation HTS systems such as the Multifunctional Satellite.

Scandinavian Airlines Selects Inmarsat's GX Aviation

July 1, 2019 - Inmarsat's GX Aviation inflight broadband service has been selected by Scandinavian Airlines (SAS) for its brand new fleet of Airbus A350 aircraft. SAS has ordered a number of new Airbus A350 aircraft as part of an extensive fleet renewal programme, the first of which will be delivered from the Airbus factory in Toulouse at the end of this year with GX Aviation pre-installed. The aircraft has been named 'Ingegerd Viking' and will officially enter service on 28th January 2020, serving long-haul routes to destinations such as Chicago, San Francisco, New York, Beijing, Tokyo, Shanghai and Hong Kong. GX Aviation's unique proposition of fast, seamless global coverage was a key factor in its selection by SAS. SAS is the latest in a growing list of European airlines to offer passengers access to GX Aviation, the world's first and only global, high-speed inflight connectivity service delivered through a wholly-owned and operated network of high-throughput satellites. The airline will also benefit from major upcoming enhancements to the GX network, with additional capacity being introduced by three new satellites launching in 2019, 2020 and 2021.

L3Harris Technologies Merger Successfully Completed

July 1, 2019 - L3Harris Technologies announced the successful completion of the all-stock merger between Harris Corporation and L3 Technologies on June 29, 2019. Headquartered in Melbourne, Florida, L3Harris is the sixth largest defense company in the U.S., and a top 10 defense company worldwide – with approximately \$17 billion in revenue and 50,000 employees, including 20,000 engineers and scientists.

INRED Partners with SES Networks to Enable 1,000 Free Wi-Fi Hotspots to Connect Colombia

July 3, 2019 - The Colombian Ministry of Telecommunications (Mintic) has selected local services provider INRED to install, operate and maintain 1,000 Wi-Fi hotspots in rural areas around the country as part of the Sustainable Universal Access project. Enabled by SES Network's Signature Enterprise Solutions INRED will leverage managed satellite services with flexibility on capacity and coverage, and a tailored network management interface, SES announced. This project responds to Colombia's "the digital future belongs to everyone" governmental initiative, which aims to accelerate the closing of the digital divide in Colombia and seeks strong cooperation between the private and public sectors to connect 100 percent of Colombians. INRED has become Colombia's first certified partner for delivering SES Networks' Signature Solutions and will leverage connectivity delivered by the SES-14 satellite, which comprises a mix of wide beams and high throughput (HTS) spot beams to cover the entire Latin America region, the Caribbean and the North Atlantic. By partnering with SES Networks, INRED is boosting Internet access in Colombia's most sparsely populated areas, while fulfilling universal service obligation (USO) commitments. The deployment of INRED's Wi-Fi hotspots will benefit 1,000 municipalities in the Colombian departments with the lowest Internet network penetration. The improved service will bring new opportunities for local communities and businesses.

Inmarsat Introduces Global Mobile Broadband Service Enhanced with New Arctic Capabilities

July 3, 2019 - Inmarsat is to introduce two new satellite payloads dedicated to the Arctic region in a partnership with Space Norway and its subsidiary Space Norway HEOSAT. The new Global Xpress (GX) payloads support the rapidly growing demand among both commercial and government users for seamless, reliable, high-speed mobile broadband services in the Arctic and throughout the world. In commercial markets, the GX Arctic payloads are designed to specifically address the needs of merchant fleets, fishing vessels, commercial airlines and the energy market, where high-speed mobile broadband connectivity is driving both major operational and efficiency improvements and supporting the introduction of new business models. Inmarsat's new Arctic capabilities will further increase network flexibility and efficiency through multi-beam, high-throughput capacity that can be fully dialled up and down depending on customer demand in the region. Today, the Arctic Circle represents a rapidly growing connectivity region for high-quality mobile broadband with increasing requirements from government, maritime and aviation customers. Building on Inmarsat's current capabilities up to and beyond 75° North,

the new GX Arctic payloads will improve network performance in very high latitudes by flying directly overhead, providing GX antennas with much higher elevation angles to optimise throughput.

GLOBAL Technologies Selects Eutelsat to Support West Africa Power Pool Project

July 4, 2019 - Eutelsat Communications has secured a multi-year contract with GLOBAL Technologies for C-band capacity on its EUTELSAT 10A satellite to provide connectivity and communications for the West Africa Power Pool Project (WAPP). Established in 1999 by ECOWAS (Economic Community of West Africa States), the WAPP project aims to interconnect the power grids of 14 West African countries. GLOBAL Technologies was awarded the telecommunications part of the project, and through this contract signature, will leverage EUTELSAT 10A satellite's dedicated coverage of West Africa to monitor the main power distribution sites across the region.

KSAT Wins Ground Station Contract with Space Norway

July 5, 2019 - Kongsberg Satellite Services (KSAT) has signed a MNOK 618 contract with Space Norway for the delivery of ground station services to provide satellite-based broadband in the Arctic. The contract is related to Space Norway's newly announced cooperation with the satellite operator Inmarsat and the Norwegian Ministry of Defence to offer mobile broadband coverage in the Arctic. The two satellites related to this cooperation are scheduled to be launched by SpaceX in 2022. The 15 year service agreement covers ground station and spacecraft operations and requires KSAT to expand with both capacity and antennas in the Tromsø-region in Northern Norway. This award is an important milestone for Kongsberg Satellite Services. Providing broadband to the strategically important Arctic region demonstrates that we are world leading provider of satellite ground stations and services.

Globe Awards Gilat a Contract for Delivering Satellite Based WiFi in the Philippines

July 9, 2019 - Globe Telecom, Inc., the leading telecom company in the Philippines, has chosen Gilat for a three-year multi-million US dollar contract, to enable WIFI service over satellite to schools and hospitals, in addition to cellular backhaul throughout the Philippines. The WIFI Broadband multi-million US dollar award comes two years after Globe chose Gilat to deliver cellular backhaul over satellite in a five-year multi-million US dollar managed service project for 2G/3G/4G connectivity and for emergency response.

RBC Signals Announces Collaboration with Amazon Web Services (AWS) Ground Station

July 10, 2019 - RBC Signals announced it is collaborating with Amazon Web Services (AWS) Ground Station to provide satellite operators access to AWS Ground Station. Combining the expansive reach of the worldwide RBC communication network with high-throughput AWS Ground Station antennas will make it faster and easier for RBC customers to downlink their satellite data, and provide low-latency, local access to other AWS services for data processing, storing, and analysis. RBC Signals will provide their satellite operator customers seeking expanded global space communication solutions with access to AWS Ground Station services. RBC Signals will also provide ongoing feedback to AWS as it matures and refines its APIs and service platform. RBC Signals' rapidly expanding network now includes more than 65 antennas in over 40 locations across the globe. The firm's communication capabilities span VHF, UHF, S, C, X, Ku and Ka-bands. RBC Signals supports satellites in GEO, MEO, and LEO, meeting a wide array of mission needs.

ZTE Launches its Cybersecurity Lab Europe in Brussels

July 11, 2019 - ZTE Corporation, a major international provider of telecommunications, enterprise, and consumer technology solutions for the Mobile Internet, has furthered its commitment to improving security for the ICT industry by opening its Cybersecurity Lab Europe in Brussels, Belgium. Located in the administrative and political heart of the EU, the Cybersecurity Lab Europe will provide a much wider range of access to the external security verification of ZTE's products, services and processes, and will facilitate the external cooperation in the security field with stakeholders. The opening of the lab is another important part of a transparency initiative of ZTE. Under such an initiative, the company has launched two other Cybersecurity labs in Nanjing, China and Rome, Italy in May. As the platform for transparency and cooperation, the lab provides four essential functions including source code review, document review, black box testing and penetration testing. In addition, ZTE will conduct in-depth research of the security field in the lab, in partnerships with industry-leading security organizations. Moreover, the lab will play a significant role of guaranteeing the security of the company's 5G solutions in the 5G era.

Avanti Confirms the Successful Integration and Testing of the 5G Limassol Platform

July 12, 2019 - Avanti Communications confirms the achievement of a significant milestone in the

5GENESIS project with the successful integration and testing of the first release of the 5G Limassol platform in Cyprus. A functional end-to-end network, enabled by satellite backhauling through Avanti's HYLAS 2 satellite, with added virtualization capabilities at the core and edge networks of PrimeTel is now confirmed. This development paves the way to integrate a 5G core and a 5G base station next year as they become available from consortium partners Athonet and Eurecom respectively. Moreover, as part of the preparation for demonstrating a complete 5G End-to-End test case, the Internet of Things (IoT) application provided by the Universitat Politècnica de València has also been integrated into the platform with both its physical and virtual components at the core and at the edge. As part of the integrated setup, Avanti has installed a 1.2 m iDirect terminal providing satellite backhaul bandwidth (15Mbps downlink / 5Mbps uplink) through HYLAS 2 to the Limassol platform using Avanti's Gateway Earth Station located in Cyprus.

Hyundai Global Service and Intellian Sign Strategic Partnership in Satellite Communications

July 16, 2019 - Intellian has signed a strategic partnership in satellite communications with Hyundai Global Service (HGS), a marine engineering & service provider and subsidiary of world's No.1 shipbuilding company Hyundai Heavy Industries (HHI) group, on July 15. As the first step of the cooperation, both companies will expand HGS' innovative 'Integrated Smart Ship (ISS)' solution; a digital ecosystem for vessel and fleet management, incorporating a powerful data analysis platform. This solution supports optimal vessel operation and management and is expected to reduce fuel costs by over 6% per year. With vessel lifespan varying based on how they are managed, smart ships with integrated digital platform capabilities such as the 'ISS' are more appealing to ship owners looking to reduce costs and environmental impact by optimizing operational efficiency. A key aspect of the partnership is Intellian's ability to provide full life-cycle support to the vessels under HGS management spanning, from monitoring and maintenance to the general services. Intellian VSAT antennas will be provided to all existing and new HHI ships as a standard package. Further, both companies will begin a full-fledged sales and marketing of 'ISS' solution & satellite communications system to various maritime markets mainly merchant, energy, etc.

Hughes Wins NASPO Contract to Provide Internet Solutions for Participating US States

July 16, 2019 - Hughes Network Systems announced it has been awarded a NASPO (National Association of State Procurement Officials) ValuePoint contract to deliver HughesNet for Business to state agencies and eligible political subdivisions. Under the agreement, Hughes will provide its flagship high-speed satellite Internet service, HughesNet, to state and local government offices and facilities, including police and fire stations, park offices, schools and libraries, and environmental monitoring stations in participating states. With download speeds of 25 Mbps available from coast to coast, HughesNet has been ranked first by the Federal Communications Commission (FCC) in its Measuring Broadband America report among all Internet service providers (ISPs) nationwide – including cable, fiber, satellite and DSL providers – in meeting or exceeding advertised download speeds. Twenty-two states have indicated their intent to participate in the contract. Hughes is the only satellite Internet provider on the NASPO ValuePoint contract and was selected to deliver services under Award Category 4: Alternative Wireless Transport Options.

Myriota Signs IoT Agreement with Australian Space Agency

July 16, 2019 - The Australian Space Agency has signed an agreement to collaborate with local space startup Myriota to enhance Australian satellite IoT capabilities. Myriota is building a constellation of low earth orbit nanosatellites capable of scaling to support billions of IoT devices. Dedicated Myriota low power IoT modules securely transmit data to the nanosatellites without the need for additional gateways, towers or other ground based infrastructure. Myriota modules have an expected battery life of years. The data is then transferred to a global network of satellite ground stations and sent to the cloud. Data from the modules is available globally via Myriota's cloud APIs. The Myriota network has applications across industries including agriculture, logistics, transport, maritime, defence, mining, utilities and the environmental sector. For example, the network is already being used by the Australian Institute of Marine Science to monitor Australia's coastline. Myriota currently uses three satellites operated by automatic identification system (AIS) satellite provider partner exactEarth.

BridgeSat Announces Corporate Name Change to BridgeComm

July 16, 2019 - BridgeSat has announced its official corporate name change to BridgeComm. Supporting the company's vision to provide organizations worldwide with fast, secure, enterprise-grade broadband services, the name change reflects its role as an OWC pioneer in growing marketplaces adjacent to the space sector, where it has built strong relationships among public, private and government organizations.

Launched in 2015, BridgeComm quickly garnered attention as the first organization to commercialize OWC and begin development of a global network of optical ground stations designed to support complimentary fixed and mobile terminals that provide high-bandwidth, high-security solutions for unique applications. A wireless technology offering rapid point-to-point data transmission via beams of light that connect from one telescope to another using low-power, safe, infrared lasers in the terahertz spectrum, OWC holds tremendous potential to augment RF, fiber and mmWave technologies and extend the capabilities of the terrestrial fiber grid – particularly in hard-to-access environments and in areas where cell towers do not currently exist.

Speedcast to Provide Connectivity for SKOM Fleet

July 17, 2019 - Speedcast International announced that Speedcast will deliver Ku-band VSAT services for 17 SKOM vessels, the chartering division of one of Malaysia's largest offshore support vessel (OSV) providers, Nam Cheong. SKOM is an existing Speedcast customer that wanted to upgrade from a basic L-band service to a higher-throughput Ku-band VSAT service from Speedcast. This migration to broadband connectivity is a trend in the market because these services are becoming essential in the modern world of commercial shipping.

EAN Inflight Broadband Now Available to Thousands of Airline Passengers

July 18, 2019 - The European Aviation Network (EAN), is now being offered by airlines to more than 30,000 passengers across the continent each day, allowing them to seamlessly browse the internet, stream videos, check social media, enjoy real-time interactive gaming, and more during flights. Currently under a 'soft launch' phase with initial airline customers, the award-winning connectivity solution can already be accessed on more than 100 routes from key destinations such as London, Madrid, Barcelona, Athens, Lisbon, Prague, Rome and Vienna. To date, almost two million passengers have travelled on flights with access to EAN. Building upon unique European infrastructure, EAN marks a paradigm shift in the airline passenger experience for the continent, with incomparable speeds, uninterrupted coverage and significantly lower latency than any other inflight broadband network in the market. Developed by Inmarsat and Deutsche Telekom (DT) in partnership with leading European companies such as Thales, Nokia, Airbus, Cobham and EAD Aerospace, EAN has been designed from scratch specifically for the needs of European aviation. It delivers consistent inflight broadband across Europe, one of the world's most congested airspaces, with more than one billion passengers and 11 million flights per year.

Speedcast Wins Contract for Fully-Managed Communications with Color Line

July 23, 2019 - Speedcast has been awarded a new multi-year, fully-managed communications contract with Color Line, onboard the Color Carrier vessel. Color Line is Norway's largest cruise ferry company, and Color Carrier is the latest addition to the Cargo service fleet operating between Oslo, Norway and Kiel, Germany. The new communications service provided by Speedcast uses 4G/LTE services in conjunction with VSAT and Iridium Certus™ links for enhanced reliability through multi-access technology coverage. Dual tracking LTE and multiple omni-directional antennas are used to increase range. All links are managed by Speedcast's network operations team to ensure seamless connectivity.

Viasat's Real-Time Earth Service Provided Commissioning and Operations Support to Orbital Test Bed Satellite

July 23, 2019 - Viasat announced its Real-Time Earth (RTE) service achieved a major milestone by providing ground station service support to General Atomics Electromagnetic Systems' (GA-EMS) Orbital Test Bed (OTB) satellite after its successful launch on a SpaceX Falcon Heavy rocket on June 25, 2019. Once in orbit, Viasat's RTE service provided critical satellite commissioning activities and subsequent operations from two of its U.S. ground stations: one in Georgia and the other in Hawaii. The GA-EMS OTB satellite is a new paradigm for low-earth orbit (LEO) hosted payload spacecraft, and provides customers with affordable access to space in order to test and qualify various technologies. Viasat's role in the OTB program has been to provide initial communications, control and telemetry services to the spacecraft via the Viasat RTE ground station network. Viasat's RTE network provides Ground-Station-as-a-Service (GSaaS) to the earth observation and remote sensing community. The service offers affordability and reduced latency through automation and geographic diversity on a pay-per-use basis. Viasat's RTE service can support next-generation and legacy LEO satellites using the S-, X-, and Ka-bands, which enables operators to meet today's and tomorrow's data requirements.

Telesat to Bridge Canada's Digital Divide through LEO Satellite Technology,

July 24, 2019 - Telesat and the Government of Canada have partnered to ensure access to affordable high-speed Internet connectivity across rural and remote areas of Canada through the development of Telesat's LEO Satellite Constellation. The partnership is expected to generate \$1.2 billion (CAD) in revenue for Telesat over 10 years, which includes a contribution of up to \$600M (CAD) from the Government of Canada, supporting the company's mission of deploying a transformational communications architecture that delivers affordable, high-speed broadband services across Canada and the rest of the world. Additionally, the Government of Canada will contribute \$85 million (CAD) to Telesat through the Government's Strategic Innovation Fund (SIF). Telesat, as part of the agreement, will support approximately 500 jobs in Canada, invest \$215 million (CAD) in R&D over the next five years, and promote STEM jobs and education in Canada through a newly created scholarship, university partnerships and other initiatives, with a strong focus on creating opportunities for women.

Inmarsat Hails US FAA Commitment to Improved Aircraft Surveillance

July 24, 2019 - The United States Government and Accountability Office (GAO) recently published a report confirming that the Federal Aviation Administration (FAA) has committed to use enhanced Automatic Dependent Surveillance-Contract (ADS-C) technology to achieve reduced distances between aircraft, called minimum separation standards, in U.S. oceanic airspace as part of its commitment to implement new international standards by 2022. ADS-C, powered by Inmarsat's SB-S and Classic Aero services, has been selected by the FAA as the technology of choice for aircraft surveillance in the region (voice and data communications are also available to all aircraft using SB-S and Classic Aero services). The decision by the FAA, which regulates the largest aviation market in the world, was driven by an in-depth analysis of the cost and benefits of both ADS-C and space-based ADS-B technologies.

Aireon Announces Landmark Deal with The Airports Authority of India

July 25, 2019 - Aireon announced that The Airports Authority of India (AAI) has signed a contract to implement Aireon's air traffic surveillance service in Mumbai, Chennai and Kolkata's oceanic airspaces. These regions are located in the Arabian Sea, Bay of Bengal and Indian Ocean and represent over six million square kilometers. The goal is to deploy space-based Automatic Dependent Surveillance-Broadcast (ADS-B) by the end of 2019. This landmark agreement will immediately provide AAI coverage of all ADS-B OUT 1090 MHz equipped oceanic air traffic, ensuring one of the densest oceanic airspaces in the world has access to the best tools to enhance safety and efficiency and accommodate unprecedented double-digit growth, year over year. Beyond those benefits, real-time air traffic surveillance over the busy routes between South East Asia, India, the Middle East and Europe and beyond will significantly increase efficiency and improve transitions between oceanic and domestic airspace.

US Army Awards Hughes \$11Million R&D Contract for Enhancing Military Satellite Communications

July 25, 2019 - Hughes Network Systems has been awarded an \$11.8 million R&D contract by the US Army, answering its requirement for improved resiliency and interoperability among SATCOM systems for military communications. The contract calls for Hughes to demonstrate a new, end-to-end Narrowband SATCOM Architecture (NBSA) incorporating Machine Learning (ML) and Artificial Intelligence (AI) features designed to improve three critical areas – network management, automated control, and system interoperability – for the US Army Combat Capabilities Development Command (CCDC), C5ISR Center, Space and Terrestrial Communications Directorate.

Gilat Achieves Critical Milestone in Peru with Approval to Enter Operational Phase

July 29, 2019 - Gilat Satellite Networks has reached a critical milestone in Peru with approval to enter the operational phase of the three-region telecom project awarded in 2015 for an aggregate value of \$285M. This phase enables the start of delivery of broadband internet services to over half a million people in the three regions. Entering the operational phase will enable Gilat to unlock access to revenue of ~\$12M per annum of operations fees, for a period of ten years, as well as to start selling services over the network. The huge project will supply connectivity to one thousand towns in the three regions, through the deployment of almost 5,000 km of fiber optic and the use of Information and Communication Technologies (ICT). The network will also provide cellular backhaul to allow mobile network operators to reach distant villages for 3G/4G broadband mobile services to satisfy the need for the same mobile connectivity services as in the urban regions. Furthermore, during the project's operation, over 4,000 representatives of schools, health, post and police stations will receive training.

Mainstream Data Expands Satellite Communications Business Based on iDirect Platform

July 29, 2019 - ST Engineering iDirect announced that Mainstream Data is expanding its business continuity and private networking services based on the iDirect platform. The additional satellite IP networking infrastructure will enable Mainstream Data to meet growing connectivity demand from both existing and new customers in the healthcare and banking sectors across areas in the United States, including areas with underdeveloped communications infrastructure. To serve their customers today, enterprises are increasingly dependent on uninterrupted IP network connectivity, driven increasingly by Software as a service (SaaS) applications and cloud computing. As a result, communications service providers are expanding their investment in network infrastructures that support higher access speeds and provides resiliency in the event of connectivity failures. However, many communities in rural North America remain underserved by terrestrial IP infrastructure, leaving a critical gap in enterprises' ability to maintain their connections with customers, data centers, and partners.

Speedcast Delivers Expanded Connectivity and Applications for Goodwood Vessels

July 30, 2019 - Speedcast will deliver Ku-band VSAT services for an additional six vessels in the Goodwood fleet, as well as providing voice services and enterprise applications with the industry-leading SIGMA Gateway platform. With the addition of these six vessels Speedcast is now providing Ku-band and Fleet Xpress VSAT services and SIGMA Gateway to a total of 25 Goodwood vessels. Goodwood is an existing Speedcast customer that wanted Speedcast's service for an additional six vessels that were previously served by another provider. Speedcast will provide Ku-band VSAT connectivity, as well as Speedcast's SIGMA Gateway connectivity platform and value-added services. SIGMA Gateway will support the customer's requirements today, and the SIGMA Gateway roadmap ensures that the customer's future needs will be met as they demand more applications and services. Goodwood's migration to SIGMA Gateway demonstrates the platform's leadership position in the market.

PHSAT Selects the Hughes JUPITER System to Power Businesses Connectivity in the Philippines

July 30, 2019 - Hughes Network Systems announced that PHSAT Telecom Solutions has chosen the Hughes JUPITER System to enable Internet services for its small-to-medium enterprise (SME) customers. PHSAT, providing domestic and international telecommunication services to businesses throughout the Philippines, selected the JUPITER System to improve the efficiency and performance of satellite broadband services to its customer base while laying the foundation for future 4G implementations. PHSAT aims to provide Internet service to underserved and unserved areas in the Philippines and increase Internet speed and reliability throughout the nation. The JUPITER system, with terminals capable of 300 Mbps of throughput plus acceleration of 16,000 TCP sessions, will help support PHSAT in achieving those goals. PHSAT is a new entrant in the Philippine telecommunications industry, with primary focus on delivering internet connectivity via satellite technology, and currently operating and managing the VSAT operations of a major telecommunications company in the Philippines.

Fleet Xpress Selected by KOTUG International for High-speed Connectivity in Asia Pacific Region

July 30, 2019 - Successful trials of Inmarsat Fleet Xpress off Western Australia have persuaded global tug operator KOTUG International to select the high-speed broadband solution for this area of the Asia Pacific region. Following trials on board the 100-ton bollard pull tug Roebuck Bay, the towage service company has confirmed that the unique Fleet Xpress combination of Ka-band, continuously backed up by FleetBroadband, has significantly enhanced both the stability of communications and available uptime. KOTUG will now phase in Fleet Xpress connectivity to cover towage services supporting Shell's Prelude floating LNG platform via a flexible plan agreement that includes 'Confirmed and Maximum Information Rates' for data transfer and crew connectivity. The package also incorporates a comprehensive onboard movie/sports/news content entertainment package. KOTUG uses its own antennas and smart boxes on board, while its business critical decisions are supported by IT tools that manage the business from its headquarters in the Netherlands.

BROADCAST

Eutelsat Invests in Broadpeak's Solutions to Develop New Generation Video Services

July 3, 2019 - Eutelsat Communications and Broadpeak announce a circa 20% investment in Broadpeak, an industry leader in video content delivery solutions. Broadpeak is a supplier of CDN (Content Delivery Network) technologies optimising the delivery of video content over terrestrial and satellite networks to

provide end-users with best-in-class viewing quality on all their devices. Eutelsat's investment in Broadpeak is a further step in its strategy to integrate satellite into the Internet Protocol (IP) ecosystem, following the launch in September 2018 of Eutelsat CIRRUS, its hybrid satellite-OTT solution giving satellite TV channels and operators the ability to offer a flexible and homogeneous multi-screen consumer experience. Eutelsat and Broadpeak will pool their technological resources to expand their respective portfolios of services for telecom operators, media groups and content owners by offering them turnkey video delivery solutions enabling them to respond to the rising demand for video content on all networks. They will also work together on projects aimed at integrating satellite technology into the 5G generation of mobile networks.

Ethiopian Broadcasters to Migrate to SES Satellite Creating Dedicated Ethiopian TV Environment

July 9, 2019 - Ethiopian private and public broadcasters, and the local media market, are poised for growth following two agreements signed between SES and the Association of Ethiopian Broadcasters (AEB), and the Ethiopian Broadcasting Cooperation (EBC) that will result in the creation of a dedicated Ethiopian TV environment. In particular, the AEB agreement will see the most popular Ethiopian TV channels migrate to a new TV neighbourhood hosted by SES's NSS-12 satellite at 57 degrees East. The migration agreement with AEB will create a dedicated TV neighbourhood for Ethiopians on SES's East Africa Digital TV platform on NSS-12 at 57 degrees East and will be launched in August 2019. The consolidation of Ethiopian content into one prime TV neighbourhood under a new orbital location means that the AEB members comprising private broadcasters EBS, Fana Broadcasting, Walta TV, Arts TV, Afrihealth, OBS, LTV, Kana, JTV, DWTV, Asham TV, Ahadu TV, Ministry of Education and Nahoo TV will be able to easily expand their audience reach. Together, these 14 members of the association control more than 50% of the viewership of Ethiopia and will be able to foster healthy advertising markets that will strengthen the development of the country's free-to-air (FTA) market. In a separate agreement with SES, the public and regional channels including ETV News, ETV Entertainment, ETV Languages, OBN TV, Tigray TV, South TV and Amhara TV led by the public service broadcaster EBC will also be distributed via this Ethiopian-dedicated TV neighbourhood. The Ethiopian content via NSS-12 will be broadcast mainly in high-definition (HD), introducing a new level of viewing experience to Ethiopian audiences.

Speedcast and In Aria! Networks Join Forces with Telespazio on Large-Scale, High-Capacity Video Services

July 15, 2019 - Speedcast announced a joint service offering with In Aria! Networks, one of Europe's leading service providers in managed broadcast video contribution over IP, and Telespazio, a leading provider of digital TV platforms and satellite transmission in Europe. Relying on a combination of In Aria! Networks' redundant video contribution over IP gateways integrated with the Speedcast Media Network (SMN) and Telespazio video teleports, media companies around the globe can securely contribute and deliver SD, HD, and UHD video services with unparalleled efficiency, flexibility, and a faster time to market. The joint service offering from Speedcast, In Aria! Networks and Telespazio is designed to speed up cloud-based IP video contribution, media processing and satellite-based digital distribution. The offering includes a wide range of cloud-based value-added services, such as backhaul, media conversion, high-quality, low-latency live streaming, and occasional use secure IP contribution, as well as multichannel digital TV platforms on the leading European Direct-to-Home satellite position.

Newtec Dialog Transforms Telemedia's Outside Broadcast Capabilities

July 16, 2019 - Newtec has provided a Newtec Dialog hub system to enhance the live broadcast capabilities of Telemedia, a media broadcast company based in Sandton, South Africa. The Newtec Dialog hub will enable Telemedia to offer a data service in addition to video broadcasting services from its fleet of Outside Broadcast (OB) trucks. Founded in 1981, Telemedia has evolved into a broad-based media facility providing a sophisticated and versatile product range with an emphasis on cutting-edge equipment and solutions. Today, outside broadcasts are reliant upon more than a contribution link back to the host broadcaster's headquarters. They also require access to phone lines, the Internet, email and file transfer services. However, installation of these essential services is normally provided by fixed line operators and is very costly. Once the installation is completed, the services are often used on a one-time basis and very rarely used again. Installation of these critical services on board OB trucks eliminates the need for one-off installations and means that the services travel with the trucks wherever they are required. Newtec Dialog is a single-service and multiservice VSAT platform that allows operators and service providers to build and adapt their infrastructure and satellite networking according to business or missions at hand. Based on the cornerstones of flexibility, scalability and efficiency, the Newtec Dialog platform gives the operator the

power to offer a variety of services on a single platform.

[Nigeria's IDS Africa Signs Contract for Broadcast Services on AMOS-17 Communications Satellite](#)

July 16, 2019 - Spacecom, operator of the AMOS satellite fleet, announced that Nigeria-based IDS Africa is the newest broadcaster to sign up for broadcast services on the AMOS-17 satellite. The satellite is scheduled to be launched to its 17°E orbital position in August 2019. IDS Africa will use the satellite to broadcast Channels TV news programming throughout Nigeria as well as to the Nigerian diaspora in Europe. Spacecom worked closely with local partner Intertel Nigeria to bring this deal to fruition. Specifically designed to meet Africa's fast-moving communication demands, AMOS-17's advanced digital payload will be Africa's most technologically advanced satellite. It will provide extensive C-Band HTS capabilities, Ka-Band and Ku-Band to a range of markets and will combine broad regional beams and high throughput spot beams to maximize throughput and spectral efficiency to connect Africa, the Middle East and Europe.

[NEC Successfully Transmits Live 8K Video Using 5G with the Largest Television Station in France](#)

July 16, 2019 - NEC Corporation has announced the successful transmission of live 8K video using 5G at an international tennis tournament recently held in Paris, France. This demonstration was carried out in cooperation with France's largest television station, France Televisions, and 8K broadcasting equipment manufacturers. In this demonstration, NEC's "VC-8900" 8K material transmission encoder, which utilizes real-time video compression technologies, was used to transmit high-definition live 8K video of the tournament to 8K video monitors and 5G smartphones and tablets at a location within the tournament's venue.

[OneWeb's Satellites Deliver Real-Time HD Streaming from Space](#)

July 16, 2019 - OneWeb, whose mission is to enable internet access everywhere for everyone, announced the successful test of its six satellites in Low Earth Orbit. All satellites delivered high-speed, low-latency services, with speed of more than 400 Mbps which enabled the fastest real-time video streaming in Full HD from Space. The tests, which took place in Seoul, South Korea, represent the most significant demonstration of the OneWeb constellation to date, proving its ability to provide superior broadband connectivity anywhere on the planet. OneWeb's satellites are performing well, enabling the company to continue its path forward towards a fully functioning global constellation in 2021 and delivering partial service beginning as early as 2020. OneWeb's service will broaden and innovate the use cases of satellite connectivity and will represent an important step towards enabling quality access everywhere for everyone. The recent satellite tests were conducted in partnership with Intellian, the developer and manufacturer of OneWeb user terminals and SatixFy, developer and manufacturer of the 125 MHz SCPC test modem.

[WarnerMedia Asia Pacific Taps Synamedia to Improve Satellite Delivery Efficiencies English](#)

July 25, 2019 - Synamedia announced that WarnerMedia Asia Pacific has chosen its end-to-end PowerVu content delivery solution to enhance their satellite content delivery system. Synamedia technologies will reduce bandwidth costs, deliver next-generation security capabilities, and prepare the company's satellite system for future IP delivery innovations. WarnerMedia is leveraging Synamedia's Virtual Digital Content Manager (vDCM) with Smart Rate Control and Automation, PowerVu Network Center (PNC), and D9800 Network Transport Receiver to help revolutionize the efficiency and speed by which their content is delivered around the world. Today, satellite technologies are advancing, leases are expiring, and security is becoming an ever-increasing concern. WarnerMedia looked to the formidable expertise of Synamedia and its HEVC technology to enable them to protect their footprint in existing markets while finding new routes to additional revenues. The end-to-end Synamedia solution will allow the company to complement its traditional satellite distribution with future IP-based delivery options, a unique capability of the D9800 Network Transport Receiver.

[Eutelsat 65 West A Selected by Ultra DTH for Pay-TV Platform](#)

July 31, 2019 - Ultra DTH Inc. has signed a multiyear, multi-transponder agreement with Eutelsat Americas, a subsidiary of Eutelsat Communications for capacity on the EUTELSAT 65 West A satellite to support the launch of a white label DTH platform across the Caribbean and the Andean region. Ultra DTH will leverage EUTELSAT 65 West A's exceptional Ku-band coverage to reach millions of households in the Caribbean and the Andean territories. Strategically headquartered in San Juan, Puerto Rico, Ultra DTH will rely on a network of key country pay-TV operators to commercialize its platform across several markets in the

Caribbean and the Andean region. These partner operators will benefit from Ultra DTH's expertise for ease of deployment and expansion within their markets, while retaining the freedom to rebrand the platform to fit the specific demands of each audience. The low-cost service will allow pay-TV operators to give access to content from across the globe, combining a unique international offering with content in English, Spanish, French, Dutch and Hindi to respond to the diverse demand from the Caribbean islands and Andean region.

LAUNCH / SPACE

Thales Alenia Space to Provide SATRIA Telecommunication Satellite for Indonesia

July 1, 2019 - Indonesia's Ministry of Communication and Information Technology (Kominfo) has selected the consortium led by the domestic satellite operator Pasifik Satelit Nusantara (PSN) to deploy and operate a broadband telecommunication satellite. This consortium has awarded Thales Alenia Space to design and manufacture the satellite named SATRIA. The Consortium PSN has formed Satelit Nusantara Tiga (SNT) to be operating company to carry on the project. The shareholders of SNT are PSN, PT Pintar Nusantara Sejahtera (Pintar), PT Nusantara Satelit Sejahtera, and PT Dian Semesta Sentosa (subsidiary of PT Dian Swastatika Sentosa Tbk). PSN and Pintar are the majority shareholders of SNT and both will maintain majority ownership in the operating company throughout the project lifetime. Acting as prime contractor, Thales Alenia Space will deliver the Very High Throughput (VHTS) satellite based on its Spacebus NEO full electric platform and fitted with a fifth-generation digital processor (5G). The company will also be in charge to provide two satellite control centers (main and backup), the telecommand and telemetry stations, and the ground mission segment linked to the fully processed payload. In addition, Thales Alenia Space will put in place a complete training program for PSN engineers, where part of them will join the project team as residents in Cannes and Toulouse during the duration of the program. The full Ka-band SATRIA satellite will carry more than 150 gigabits per second over the full Indonesian territory. Dedicated to narrow the digital divide, SATRIA has the ambition to connect around 145,000 areas including 90,000 schools, 40,000 hospitals and public buildings as well as regional government sites not linked by existing satellite or terrestrial infrastructure. The satellite will contribute to the digital infrastructure developments in Indonesia.

China to Launch Constellation with 72 Satellites for Internet of Things

July 3, 2019 - A research institute of the Chinese Academy of Sciences (CAS) has announced a constellation program, planning to launch 72 small satellites for the Internet of Things in the next three years. The program will be implemented by Beijing-based private satellite company "Commsat," which was funded by the Xi'an Institute of Optics and Precision Mechanics under the CAS. A total of eight communication satellites of the program were sent into space last year for in-orbit tests. The company plans to initiate the commercial use of the program in 2020 with a launch of another four satellites, and to complete a global deployment of the constellation of 72 low-earth orbit satellites by the end of 2022. These satellites will serve different segments including wildlife protection, field emergency rescue, vehicle and ship monitoring and logistics tracing. In February 2018, the company launched a satellite called Young Pioneer 1, an education satellite that provides students of primary and secondary schools with experiences like wireless communication and space photography. Last December, seven small satellites called the "ladybeetle series" manufactured by the company were sent into space. They are used to test a closed-loop system for the Internet of Things, which includes satellites, cloud computing platforms, ground control stations and terminals.

Satellite Startup NSLComm to Launch First Satellite into Space

July 3, 2019 - Founded in 2009, NSLComm designs small satellites with fabric-like, flexible dish antennas that expand in space. NSLComm Ltd., an Israel-based developer of nanosatellites, is set to launch its first satellite into space, the company announced Wednesday. The satellite, called NSLSat-1, has been successfully installed on the Soyuz launch vehicle at the Russian spaceport of Vostochny Cosmodrome, with takeoff set for 1:42 AM Eastern Time on Friday, the company said. The technology permits the antennas to be stowed during launch in a compact volume and deployed while in orbit, according to company statements. The company has raised \$9.5 million to date, from investors including Jerusalem Venture Partners (JVP), Jerusalem-based equity crowd funding company OurCrowd, the tech investment arm of Israel's national carrier EL AL Israel Airlines Cockpit Innovation, and Liberty Technology Venture Capital, according to Pitchbook data. The company is headquartered in Airport City, Israel.

Singapore's Rocket Tech Startup, ESI Joins the ANSYS Startup Program

July 5, 2019 - Access to ANSYS simulation tools will support ESI (Equatorial Space Industries)'s efforts in becoming Southeast Asia's first commercial space launch startup. ESI plans to leverage ANSYS mechanical and fluid dynamics simulation capabilities to develop and optimize components for ESI's upcoming Suborbital Hybrid Ascent and Recovery Programme (SHARP) vehicles, as well as the orbital-class Volans microlauncher. ESI was started in 2017 in Singapore to deliver new-generation space technologies and propulsion systems to be used in a variety of rockets and spacecraft, including its small launch vehicles. ESI aims for its first orbital test flight by 2021.

Maxar Technologies Extends Contract with Esri for Highest Quality Satellite Imagery Mosaics

July 8, 2019 - Maxar Technologies announced that it signed a three-year contract to continue providing its Vivid and Metro satellite imagery mosaics to Esri's ArcGIS Living Atlas of the World. This new contract builds upon Esri and Maxar's long-term partnership and demonstrates Esri's commitment to providing ArcGIS users with the highest quality satellite imagery foundation available. Esri's ArcGIS Living Atlas of the World is a collection of geographic information from around the world, including maps, apps and data layers. The World Imagery map of Living Atlas uses Maxar's Vivid and Metro imagery mosaic products, which include some of the highest resolution, most accurate and visually consistent global image mosaics available on the market and updated annually. As part of Maxar's continued efforts to innovate and enhance its products, Esri will receive a new version of Vivid that more than doubles the horizontal accuracy of imagery pixels, thus making the vector features extracted by ArcGIS creators even more precise. Esri's contract includes up to 1,000 of Maxar's 6,000 Metro imagery mosaics, which provides global, off-the-shelf access to recent imagery of specific cities. ArcGIS end users will also have access to Maxar's NaturalVue® 2.0 image mosaic and National Urban Change Indicator (NUCI) through the Living Atlas Catalog, which was announced earlier this year.

Airbus to Develop CO3D Earth Observation Programme for CNES

July 8, 2019 - The French Space Agency (CNES) has awarded the CO3D (Constellation Optique 3D) contract to Airbus. Under this agreement, Airbus will deliver a global high-resolution Digital Surface Model (DSM). Following launch, expected end of 2022, the Airbus-made CO3D constellation, comprising four identical satellites, will deliver 50cm resolution stereo imagery across the world on a daily basis. The data acquired will feed a cloud-based processing chain operated by Airbus and integrating CNES' algorithms, to produce a cutting-edge 3D map of the Earth's landmass. Designed to weigh approximately 300kg, the CO3D satellites will join Airbus' fleet of optical satellites, strengthening the company's ability to meet the growing needs of very demanding applications. Inaugurating a generation of highly innovative and all electric platforms, these extremely agile satellites will instigate a new way of acquiring, processing and transferring images to the ground. Together with the four Pléiades Neo satellites, the CO3D constellation will offer unrivalled refresh rates for very high-resolution imagery. CNES and Airbus have established a virtuous partnership with this project. An integrated and agile governance between both partners will enable the mission to be optimised to cover both private and public needs. Data collected by the CO3D constellation will be available for scientific and defence institutional partners of the programme.

China's Ocean Observation Satellites Put into Operation

July 8, 2019 - China's two ocean observation satellites, HY-1C and HY-2B, have completed their in-orbit delivery, according to the Ministry of Natural Resources. The two satellites represent the country's highest level of marine remote sensing satellites and the delivery signified that China's first batch of ocean observation satellites became operational. The HY-1C was launched in September 2018 and had a designed life of five years. It will help monitor ocean color and water temperatures, providing basic data for research on the global oceanic environment. The HY-2B was launched in October 2018 and had a designed life of five years. It can acquire a variety of marine dynamic parameters such as global sea surface wind field, wave height and sea surface temperature. It will provide data to support marine disaster relief, ocean resources utilization and marine environmental protection.

NASA Awards Launch Services Contract to SpaceX for Astrophysics Mission

July 8, 2019 - NASA has selected SpaceX to provide launch services for the agency's Imaging X-Ray Polarimetry Explorer (IXPE) mission, which will allow astronomers to discover, for the first time, the hidden details of some of the most exotic astronomical objects in our universe. The total cost for NASA to launch IXPE is approximately \$50.3 million, which includes the launch service and other mission-related costs. IXPE measures polarized X-rays from objects, such as black holes and neutron stars to better

understand these types of cosmic phenomena and extreme environments. The IXPE mission currently is targeted to launch in April 2021 on a Falcon 9 rocket from Launch Complex 39A in Florida. IXPE will fly three space telescopes with sensitive detectors capable of measuring the polarization of cosmic X-rays, allowing scientists to answer fundamental questions about these turbulent environments where gravitational, electric and magnetic fields are at their limits.

Maxar Teams with Dynetics on Power and Propulsion Element for Lunar Gateway

July 9, 2019 - Maxar Technologies announced that it has signed a teaming agreement with Huntsville, Alabama-based Dynetics to support Maxar in building and demonstrating the power and propulsion element for the Gateway – an essential component of NASA's Artemis lunar exploration program and future expeditions to Mars. The teaming agreement establishes a framework for the companies to work together on the mission, with substantive work being executed by Dynetics. As recently announced, Maxar was selected by NASA to build and perform a spaceflight demonstration of the power and propulsion element spacecraft. The spacecraft is the first element for the NASA-led lunar Gateway, which will play a critical role in ensuring that NASA astronauts can land on the surface of the Moon by 2024 while serving as a vital platform to support future missions to Mars and beyond. The mission is targeted for launch by the end of 2022 and will provide power, manoeuvring, attitude control, communications systems and initial docking capabilities for the Gateway. The agreement enables Dynetics to collaborate with Maxar in the design, manufacturing and operations of Maxar's power and propulsion element spacecraft. Dynetics has a wide range of capabilities to support Maxar in areas such as propulsion systems, mechanical and propulsion testing, system integration and assembly, and mission operations.

China Develops New Generation Recoverable Satellite for Commercial Use

July 11, 2019 - China is developing a new generation recoverable satellite for commercial use, which is expected to make its maiden flight in 2020, according to a space engineer. Delivering a report at a science communication salon recently, Zhao Huiguang, chief designer of the recoverable satellite from the China Academy of Space Technology, said China's new generation recoverable satellite is able to return 500 kg to 600 kg payloads back to Earth from space. So far, China has launched 25 recoverable satellites, and their usage is shifting from resources investigation to space science. In the coming 10 years, China will launch 10 to 15 recoverable satellites to meet the demand of domestic and international customers. *(Source: China Space News)*

Maxar Begins Production on Legion-class Satellite for Ovzon

July 12, 2019 - Maxar Technologies announced that it has begun production on a Legion-class geostationary satellite for Ovzon, a company located in the United States and Sweden dedicated to meeting the demand for increased mobile broadband connectivity in underserved regions. Ovzon selected Maxar in December 2018 to build its first satellite, Ovzon 3, which will provide extremely versatile mobile broadband communications for small vehicles, aircraft and users on-the-move. Now that Ovzon has secured financing to build the satellite, Maxar will begin building it in its Palo Alto, California manufacturing facility. The satellite will be based on the mid-size Legion-class platform, formerly called the SSL-500, and is expected to be launched by SpaceX in 2021.

Proton Successfully Delivers the Spektr-RG Astrophysical Observatory Spacecraft into Orbit

July 17, 2019 - The Proton M launch vehicle with the Block DM-3 upper stage and the Spektr-RG astrophysical observatory was successfully launched from Site 81 of the Baikonur Cosmodrome on July 13. The launch and flight were completed with no issues making this the second launch of this type of vehicle in 2019. The spacecraft is expected to detect 100,000 galaxy clusters in the observable part of the Universe, as well as approximately 3 million accretive supermassive black holes, hundreds of thousands of stars with active coronas and accreting white dwarf stars, tens of thousands of star-forming galaxies and many other objects, including objects of unknown nature. These data are extremely important for understanding how matter is distributed in the Universe, what role dark energy played in its development and how supermassive black holes appeared and grew. The Spektr-RG spacecraft was developed in partnership with Germany as part of the Federal Space Program on request of the Russian Academy of Sciences. The observatory is equipped with two unique X-ray mirror telescopes, the ART-XC (made in Russia at the Russian Space Research Institute) and eROSITA (made in Germany at MPE), which comprise an oblique incidence X-ray optical system. The telescopes are mounted onto a Navigator bus (NPO Lavochkin, Russia), that was adapted to the requirements of the program.

Syrlinks and Thales Alenia Space to Provide Payloads for the Kinéis IoT Constellation

July 19, 2019 - Syrlinks has been chosen by Thales Alenia Space to contribute to the design and delivery of the payloads for the future Kinéis constellation nanosatellites. These miniaturized payloads will recover the data transmitted from the beacons to the satellites, before beaming them back to the ground-based stations. Syrlinks has been chosen for its proven expertise in space technology and its mastery of the New Space class and miniaturization, designed to reduce system energy consumption. The company has already been closely involved in this area, having worked as subcontractor of Thales Alenia Space since 2017 on the development of the Argos Néó payload for the demonstration nanosatellite built by the CNES (the French National Center for Space Studies). Syrlinks has now completed the development phase of this demonstration nanosatellite and delivered its flight model. The launch is scheduled for October 2019. With 25 nanosatellites in service, Kinéis will operate the very first European nanosatellite constellation for the IoT. As announced last September, Kinéis has entrusted Thales Alenia Space with the development of the payloads, in partnership with Syrlinks, while Hemeria (a Nexeya corporation) will design and build the nanosatellites.

ISRO's GSLV Launches Chandrayaan-2 Spacecraft

July 22, 2019 - India's Geosynchronous Satellite Launch Vehicle GSLV MkIII-M1, successfully launched the 3840 kg Chandrayaan-2 spacecraft into an earth orbit. The spacecraft is now revolving round the earth with a perigee (nearest point to Earth) of 169.7 km and an apogee (farthest point to Earth) of 45,475 km. In the coming days, a series of orbit manoeuvres will be carried out using Chandrayaan-2's onboard propulsion system. This will raise the spacecraft orbit in steps and then place it in the Lunar Transfer Trajectory to enable the spacecraft to travel to the vicinity of the Moon. GSLV Mk III is a three-stage launch vehicle developed by ISRO. The vehicle has two solid strap-ons, a core liquid booster and a cryogenic upper stage. The vehicle is designed to carry 4 ton class of satellites into Geosynchronous Transfer Orbit (GTO) or about 10 tons to Low Earth Orbit (LEO). Chandrayaan-2 is India's second mission to the moon. It comprises a fully indigenous Orbiter, Lander (Vikram) and Rover (Pragyan). The Rover Pragyan is housed inside Vikram lander. The mission objective of Chandrayaan-2 is to develop and demonstrate the key technologies for end-to-end lunar mission capability, including soft-landing and roving on the lunar surface. On the science front, this mission aims to further expand our knowledge about the Moon through a detailed study of its topography, mineralogy, surface chemical composition, thermo-physical characteristics and atmosphere leading to a better understanding of the origin and evolution of the Moon.

OneWeb and Airbus Open Satellite Production Facility in Florida

July 22, 2019 - OneWeb Satellites – a joint venture of OneWeb and Airbus – officially opened the world's first high-volume, high-speed advanced satellite production facility to bring transformative internet connectivity to everyone, everywhere. Historically, satellites are custom built, costing tens of millions of dollars to build, and taking more than a year to produce a single one. The OneWeb Satellites facility is the first to employ industrial-scale mass production techniques for satellites, enabling dramatically reduced costs and production times that can deliver one satellite per production shift or two a day, while significantly expanding internet connectivity and making space technology far more accessible. The facility's production capabilities will first support the rapid scaling of the OneWeb network, starting with a constellation of 650 satellites and scaling to 1,980 satellites delivering global connectivity. The 105,500 square foot production facility has two production lines capable of producing two satellites a day.

Maxar to Integrate NASA's Pollution Monitoring Payload on an Upcoming Commercial Satellite

July 23, 2019 - Maxar Technologies has announced that it will integrate and fly NASA's Tropospheric Emissions: Monitoring of Pollution (TEMPO) instrument on a 1300-class satellite in geostationary (GEO) orbit. TEMPO will be the first space-based instrument to provide hourly monitoring of major air pollutants during the daytime across the North American continent at high spatial resolution. TEMPO is a UV-visible spectrometer that will observe Earth from a vantage point about 22,000 miles above Earth's equator. It will detect pollutants by measuring sunlight reflected and scattered from Earth's surface and atmosphere. The resulting data from TEMPO will be used to enhance air quality forecasts in North America, enabling more effective early public warning of pollution incidents. Maxar previously completed a study to accommodate TEMPO on a commercial GEO satellite. Building on the successful completion of the study, Maxar has been selected to integrate and fly the TEMPO payload. The instrument is currently slated for launch by 2022.

Thales Alenia Space and Telespazio Win Contract from Italian Space Agency

July 23, 2019 - The Space Alliance between Thales Alenia Space and Telespazio announced that it has signed a contract with the Italian Space Agency (ASI) for the initial development of an innovative satellite system dubbed Ital-GovSatCom. This contract paves the way for a dynamic program within the scope of the Italian "Space Economy" initiative. The contract, signed by Thales Alenia Space as the lead company in a temporary consortium (RTI), is the first within the scope of the Space Economy initiative, providing for both private and government participation. The Ital-GovSatCom program was originally Italy's contribution to a European initiative called GovSatCom. Designed to give Italy a strong position in the strategic sector of governmental communications, its aim is to develop and operate an innovative and competitive satellite system providing secure, robust and reliable communication services for several government applications, including civil security, defense, humanitarian aid, telemedicine and maritime surveillance.

SpaceX Dragon on Route to Space Station with NASA Science Cargo

July 25, 2019 - A SpaceX Dragon cargo spacecraft launches to the International Space Station on a Falcon 9 rocket at 6:01 p.m. EDT July 25, 2019, from Space Launch Complex 40 at Cape Canaveral Air Force Station in Florida. The spacecraft is scheduled to arrive at the orbiting laboratory July 27 with the station's second commercial crew docking port and about 5,000 pounds of science investigations and supplies. This delivery, SpaceX's 18th cargo flight to the space station under a Commercial Resupply Services contract with NASA, will support dozens of new and existing investigations. The space station continues to be a one-of-a-kind laboratory where NASA is conducting world-class research in fields, such as biology, physics, and materials science. NASA's research and development work aboard the space station contributes to the agency's deep space exploration plans, including returning astronauts to the Moon's surface in five years and preparing to send humans to Mars.

Japanese Space Industry Startup Synspec Inc. Raises US \$100 Million in Funding

July 26, 2019 - Synspec Inc., is a Japanese startup which provides satellite data solutions using small sized SAR (Synthetic Aperture Radar) satellites. The company accumulated \$100 million USD in funding since its foundation in February 2018. Raising that amount in less than 17 months makes Synspec the world's fastest and Japan's second highest funded space startup. The investment will help strengthen the company's SAR satellite development, manufacturing systems, and solutions development. Synspec provides one-stop solutions by satellite gathered geospatial data. The core technology was developed by the IMPACT program* led by The Cabinet Office, Government of Japan, building small SAR satellites and constellation, allowing frequent observation of areas of interest. Synspec uses SAR satellites to provide data and produce user-friendly information to Governments and Private Companies.

Airbus to Build European Component of SMILE

July 30, 2019 - Airbus has been selected by the European Space Agency to build the European component of the SMILE satellite (Solar wind Magnetosphere Ionosphere Link Explorer). SMILE will be the first joint satellite mission between the European Space Agency (ESA) and the Chinese Academy of Sciences (CAS), following on from the success of the Double Star / Tan Ce mission which flew between 2003 and 2008. The objective of SMILE is to study and understand space weather. Specifically, it will look at the physics behind continuous interaction between particles in the solar wind and Earth's magnetosphere, the magnetic shield that protects the existence of life in our planet. The mission is now entering a four year period of manufacturing, testing, and integration of the payload module and the platform. In launch configuration these two components will form a 3.15-m-high stack.

Luxembourg and NorthStar to Cooperate on a Common Clean Space Initiative

July 31, 2019 - During the visit of Luxembourg's Deputy Prime Minister, Minister of the Economy, Étienne Schneider to the NorthStar Earth & Space headquarters in Montreal, a cooperation was launched to enable a Clean Space initiative to foster sustainability in space. The Clean Space initiative would evaluate the use of NorthStar Earth and Space Information services with the support of Luxembourg's insurance, financial and satellite operator communities to address some of the key issues related to space traffic management, sustainable commercialization of space activities, insurance products for space operations to promote growth in commercial space activities, and satellite operational challenges. NorthStar's mission is to empower humanity to preserve our planet by putting into place a unique Space and Earth information platform dedicated to space-based Space Situational Awareness (SSA) and Earth Intelligence. Starting in 2021 and based on a satellite constellation equipped with Hyperspectral, Infrared and Optical sensors, the

platform will operate continuously from space, imaging, digitizing and analyzing the details of Earth's ecosystems and surrounding orbit on a daily basis. It will transform the way governments, industry and NGOs assess risk, enforce regulations and make decisions to foster the sustainable development of our planet and deliver a safe and secure near-space environment for the global satellite community.

EXECUTIVE MOVES

Eutelsat Announces Two Changes to its Executive Committee

June 28, 2019 - Eutelsat Communications has announced several changes to its Executive Committee, as part of a generational renewal of its management body. These changes will be effective as of 1 July this year. Philippe Oliva, aged 46, currently, Executive Vice-President, Sales and Products, succeeds Michel Azibert as Chief Commercial Officer. In this role, he will be responsible for defining and supervising the commercial policy, as well as generating revenue for the Group. Jean-Hubert Lenotte, aged 51, currently Director of Strategy and Strategic Marketing, will also be taking charge of the Deployment Department and will be responsible for Eutelsat's satellite fleet, frequency management and resource planning. This newly revamped department will now be known as the Strategy and Resources Department. Michel Azibert will remain Deputy Chief Executive Officer and, in this role, will participate in all matters of importance to the Group. Previously Director of Deployment, Jacques Dutronc will become Director of Development, coordinating Group-wide business development projects. Philippe Oliva began his career as a consultant in the consultancy firm CIMAD, before joining IBM in 1999, where he held several senior positions. These included head of Business Services France, then Vice President of the services offered by the Technological Infrastructure Department. He also coordinated the launch of the Cloud business and Hybrid Cloud services in France, then in the United States, where he spent several years. He held the position of Vice President in charge of strategic accounts at IBM before joining Eutelsat in September last year. Jean-Hubert Lenotte began his career with the Bouygues Group, taking part in the creation of its subsidiary Bouygues Telecom in 1994. In 1997, he joined the McKinsey firm in Paris, where he was appointed Associate Director in 2004. In 2009, he joined McKinsey's global Telecommunications, Media and Technology Division, where he was in charge notably of consumer-related issues. He joined Eutelsat as Director of Strategy in 2013 and became a member of the Executive Committee in 2016 as Director of Strategy and Strategic Marketing.

Firefly Aerospace Names Brad Schneider as Chief Revenue Officer

July 24, 2019 - Firefly Aerospace announced today that it has hired Brad Schneider as the Chief Revenue Officer. Schneider has more than 35 years of experience in corporate operations, business, and strategic marketing within the aerospace and defense industry, focusing the last two decades on the development of small satellite and launch vehicle technologies. Schneider has previously held senior leadership roles, including Chief Financial Officer, Chief Operating Officer, General Manager and Consultant for leading private start-up companies and has had extensive public sector experience with Lockheed Martin and Raytheon. Prior to joining Firefly, he was one of the first executives with Rocket Lab USA Inc., serving as Executive Vice President of USA operations responsible for operational and launch services activities. As a senior executive of innovative high technology Aerospace and Defense companies dedicated to the design, development and manufacturing of state-of-the-art systems, Schneider is recognized as a leader within the small satellite industry.

REPORTS

NSR's Wireless Backhaul and 5G over Satellite, 13th Edition

July 2, 2019 - NSR's detailed market review in *Wireless Backhaul & 5G via Satellite, 13th Edition* is rooted in the bottom-up assessment, and forecast, of the installed base of Backhaul, Trunking, Hybrid Networks and 5G Sites in each of the seven different regions analyzed in this study. Following the installed base assessment, NSR then evaluates capacity demand in all frequencies and architectures, CPE shipments as well as the revenues generated.

NSR Releases Maritime Satcom Markets, 7th Edition

July 9, 2019 - NSR's *Maritime Satcom Markets, 7th Edition* is built from 10+ years of research on the

maritime satellite communications market. Continuously tracking the developments of key players, end-users, and market segments, combined with extensive interviews across the value-chain, and deeper-dives in selected sub-segments and regions, all combine to form a complete quantification of major trends, drivers, and restraints present in the maritime market.

WTA Releases Managing VSAT Networks for Optimum Performance Report

July 11, 2019 - The World Teleport Association (WTA) released *Managing VSAT Networks for Optimum Performance*, a new report that shares insights from thought leaders in the industry on the top challenges facing VSAT operators, future-proofing networks to address these challenges and what impact they expect from 5G and LEOs. In *Managing VSAT Networks for Optimum Performance*, WTA invites teleport and satellite executives to describe the challenges that their networks face today and the techniques and tools they use to overcome them. They share their view of what works best today and what solutions are in development to tackle the greater challenges of the future.

Satellite Manufacturing & Launch Services Market to Generate \$225B in Next Decade

July 17, 2019 - NSR's *Satellite Manufacturing and Launch Services, 9th Edition (SMLS9)* report published today forecasts a \$225 B market opportunity over the next decade, driven by Situational Awareness and Earth Observation markets. Despite the hype created by smallsat LEO constellations, the traditional market is expected to remain the dominant source of revenue globally for building and launching satellites. While it is not likely to return to heady levels of yesterday, new opportunities are emerging that the industry can grasp if it adapts to a nimbler state of affairs.

Euroconsult Predicts 10-Year Growth Cycle for Government Space Programs

July 25, 2019 - According to Euroconsult's newly released research, *Government Space Programs: Benchmarks, Profiles & Forecasts to 2028*, global government space budgets are in the early stages of a ten year growth cycle with total world expenditures reaching \$70.9 billion in 2018, and forecast to grow to \$84.6 billion by 2025. The report, which is trusted by hundreds of organizations around the world, provides important detail on how much investment is expected by region with profiles of space programs in 86 countries. It includes analysis of seven different application areas for each country including Earth observation, satellite navigation, space science and exploration, space security, communications, launch vehicles and manned spaceflight.

UPCOMING EVENTS

World Satellite Business Week, September 9-13, Paris, France, <http://www.satellite-business.com/en>

IBC 2019, September 13-17, Amsterdam, the Netherlands, <https://show.ibc.org/>

IAC 2019, October 21-25, Washington DC, USA, www.iac2019.org

37th International Communications Satellite Systems Conference (ICSSC), October 29 – November 1, Okinawa, Japan, <http://www.kaconf.org/call4papersICSSC.php>

China Satellite 2019, October 30 – November 1, Beijing, China, www.china-satellite.org

Asia Video Summit 2019, November 4-6, Hong Kong, <https://asiavia.org/insight/events/>

Global MilSatCom 2019, November 5-7, London, UK, <https://www.smi-online.co.uk/defence/uk/global-milsatcom>

APSCC 2019 Satellite Conference & Exhibition, November 19-21, Bangkok, Thailand, <http://apscsat.com>

APSCC 2019 Youth Development Workshop, November 21, Bangkok, Thailand, <https://apscsat.com/workshop/>

Broadband India Forum, November 27-28, New Delhi, India, www.broadbandindiaforum.com

Broadband India Forum is organizing 5th International Summit - India SatCom 2019 on 27 & 28 November, 2019 at New Delhi. The conference would deliberate on Policy and Regulatory measures required to facilitate rapid and barrier free deployment of Next Gen Satellite communications technologies to achieve the objectives of Govt's flagship programme on Digital India.

Editorials and Inquiries

News, comments, and suggestions can be sent to the editor at:

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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.