

APSCC Monthly e-Newsletter

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

SATELLITE BUSINESS

Intelsat, SES, Eutelsat and Telesat Establish the C-Band Alliance

October 1, 2018 - Intelsat, SES, Eutelsat, and Telesat announced the creation of a consortium called the C-Band Alliance, or CBA, in a move that could accelerate making mid-band spectrum available for 5G services. The CBA is designed to act as a facilitator as described in a recent U.S. Federal Communications Commission (FCC) proceeding featuring the companies' market-based proposal to clear a portion of C-band spectrum in the United States. The formation of the CBA is a significant achievement and demonstrates the industry alignment necessary to make this mid-band spectrum available quickly, thus supporting the U.S. objective of winning the race to introduce terrestrial 5G services. A significant milestone in the progression of the proposal, the establishment of the CBA signifies that the satellite operators delivering the vast majority of satellite C-band services in the U.S. have agreed upon the key technical and commercial steps necessary to enable commercial implementation of the spectrum clearing process. The CBA also ensures that customer services are protected from potential interference as new wireless services are introduced into the cleared portion of the spectrum.

Cobham and Inmarsat Solution Extended to United Airlines' Boeing 737NG

October 2, 2018 - Cobham Aerospace Communications, the leading manufacturer of satellite communications solutions, and Inmarsat have announced entering into a contract for the certification of the AVIATOR 300D satellite communication system on Boeing 737NG aircraft. The new STC for the Cobham solution will enable United Airlines to extend Inmarsat's SB-S satellite IP platform to more of its fleet, bringing the airline more operational efficiencies from the connected flight deck. Developed and owned by Avionics Support Group, Inc. (ASG) for the AVIATOR avionics and Delta G Designs, Inc. (DGD) for the compact Cobham IGA-5001 Intermediate Gain Antenna, the STCs will cover the Boeing 737, NG and MAX aircraft and are expected to be available in early 2019. For the last year, United Airlines has been utilising Cobham's AVIATOR 300D satcom and Inmarsat's SB-S IP broadband platform on its Boeing 767-300 aircraft in the North Atlantic Airspace for communications and surveillance with Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance Contract (ADS-C) messaging.

ORBCOMM to Offer Satellite Services and Solutions in China

October 3, 2018 - ORBCOMM Inc. announced the availability of ORBCOMM satellite services and solutions in China, targeted for the heavy equipment, transportation & logistics and maritime industries. One of the premier Chinese telecommunications operators recently received the authorization for the use of ORBCOMM's satellite constellation. ORBCOMM's local service partner for China, Asia Pacific Navigation Telecommunications Satellite (APNTS), based in Shenzhen and Hong Kong, will participate in providing service, support and distribution. A China Gateway Earth Station (GES) is planned for construction to serve as a network link between the ORBCOMM satellite system and its worldwide infrastructure. It will enable ORBCOMM to more effectively deliver the advanced services provided by its satellite constellation, making communications more efficient, reliable and globally available for its industrial IoT customers. Additional ORBCOMM GES facilities in China are in the planning stages.

SES Networks Enables Direct Connectivity to IBM Cloud via Global Satellite Network

October 4, 2018 - Through the IBM Cloud Direct Link Service Provider Program, SES Networks is enabling high-performance, fibre-like connectivity to IBM Cloud customers globally. SES Networks is using satellite-based connectivity to deliver an improved digital experience in customer segments such as governments, global telecommunications, maritime, aerospace, energy and other markets with remote or mobile end

points, SES announced. With cloud adoption increasing worldwide, SES Networks is collaborating with IBM to help ensure that applications and solutions can be deployed on the IBM Cloud to markets that currently have limited connectivity due to unreliable or non-existent terrestrial networks. SES Networks' O3b Medium Earth Orbit (MEO) satellite network delivers improved resilience and always-on managed connectivity services to IBM Cloud customers.

Intelsat and APSATCOM Launch IntelsatOne Flex for Maritime in Asia

October 7, 2018 - Intelsat S.A. announced that APT Mobile Satcom Ltd. (APSATCOM) will become the first maritime solution partner to offer, in China, IntelsatOne Flex for Maritime services. This agreement will deliver a seamless global maritime network for APSATCOM's customers, providing unparalleled throughput, improved economics, and easier access to broadband services. Under the new, multi-year agreement, Intelsat will provide IntelsatOne Flex for Maritime services, interconnection, and backhaul to APSATCOM's data centers. The award-winning IntelsatOne Flex for Maritime platform is a seamlessly integrated managed service that offers multi-layered global coverage by leveraging the power of the Intelsat Epic^{NG} high-throughput satellites (HTS) and Intelsat's global network of wide beam satellites.

Telesat and Newtec Successfully Complete Over-the-Air Testing on Telesat's First LEO Satellite

October 8, 2018 - Newtec announced its modems have become the first to be successfully tested over-the-air on Telesat's inaugural Low Earth Orbit (LEO) satellite. Telesat's Phase 1 LEO satellite was launched on January 12, 2018, and the company is now conducting live demonstrations of its capabilities – an important milestone in Telesat's plans to deploy a global LEO constellation that will revolutionize broadband communications around the world. Testing of the Ka-band payload is ongoing and Newtec's technology is being used to demonstrate different service scenarios. The latest trials saw test user traffic successfully passed over the satellite via Newtec modems, showing that flawless operation without packet loss can be achieved on LEO constellations.

NEP Group Acquires SIS LIVE

October 9, 2018 - NEP Group announced its acquisition of SIS LIVE Limited, a leading provider of connectivity services and a subsidiary of UK-based Sports Information Services (SIS). The acquisition complements NEP's Broadcast Services and Media Solutions businesses, strengthening the company's support of live sports, broadcast and entertainment clients across the UK, Europe and worldwide. The addition is also consistent with NEP's stated strategy to grow its Media Solutions segment, and connectivity capabilities are critical to NEP delivering a full suite of managed services that enable NEP's clients to make, manage and show the world their content.

IRG Becomes Satcoms Innovation Group

October 9, 2018 - The Satellite Interference Reduction Group announced it is expanding its reach to encompass all types of innovation within the satellite communications industry. As part of that expansion, it has changed its name to Satcoms Innovation Group (SIG). SIG aims to promote innovation in the satellite communications industry to improve operational efficiency, reduce the risk of service impacting events, and improve quality of service. A significant part of that remit remains innovation to minimize satellite interference, both by prevention and quicker resolution. It also now covers other areas where innovation can improve performance and enable the industry to become more competitive. SIG will continue the focus on bringing the industry together at an engineering level. This makes it uniquely positioned to provide a platform for those engineers to discuss current challenges. This approach has resulted in a number of innovative solutions being brought to market that have had a massive impact on reducing satellite interference.

Viasat Offers Highest-speed Connectivity Package for Bombardier Global Aircraft

October 10, 2018 - Viasat announced an exclusive distributor agreement with StandardAero to offer a high-speed connectivity package for Bombardier Global business jets. The package will cover Viasat's Ka-band and dual-band Ka-/Ku-band equipment, inclusive of the Viasat shipset, radome and STC, for all Bombardier Global Express, Global Express XRS, Global 5000 and Global 6000 aircraft. Through this agreement, operators and other maintenance, repair and overhaul (MRO) shops of Bombardier Global aircraft can work directly with StandardAero to install Viasat's in-flight connectivity system on the select named Bombardier models.

SATConsult Selected by ESA to Lead Consortium

October 11, 2018 - SATConsult, member of Euroconsult Group selected by ESA to lead a consortium, composed of RHEA Group, Airbus and Space Hellas, to help develop a secure, independent, and centralized digital platform for Pooling & Sharing (P&S) satellite communication resources. ESA has identified an increasing demand for secure satellite communications worldwide and a need for reliable and secured communications to support a variety of domains such as crisis management, maritime safety, border control and other security domains. Satellite capacity is an important resource in establishing secure communications links, especially where terrestrial infrastructure is compromised – such as is the case with natural disasters. However, despite availability, it is currently a difficult and lengthy process to identify and allocate those resources to set up communications links for missions where time can be a critical factor.

Harris Corporation and L3 Technologies to Combine in Merger of Equals

October 14, 2018 - Harris Corporation and L3 Technologies, Inc. have agreed to combine in an all stock merger of equals to create a global defense technology leader, focused on developing differentiated and mission critical solutions for customers around the world. Under the terms of the merger agreement, which was unanimously approved by the boards of directors of both companies, L3 shareholders will receive a fixed exchange ratio of 1.30 shares of Harris common stock for each share of L3 common stock, consistent with the 60-trading day average exchange ratio of the two companies. Upon completion of the merger, Harris shareholders will own approximately 54 percent and L3 shareholders will own approximately 46 percent of the combined company on a fully diluted basis. The combined company, L3 Harris Technologies, Inc., will be the 6th largest defense company in the U.S. and a top 10 defense company globally, with approximately 48,000 employees and customers in over 100 countries. For calendar year 2018, the combined company is expected to generate net revenue of approximately \$16 billion, EBIT of \$2.4 billion and free cash flow of \$1.9 billion.

Intelsat Introduces New End-to-End Managed Service for Business Aviation

October 15, 2018 - Intelsat announced that it is launching FlexExec, a managed end-to-end service enabling service providers to easily and cost-effectively deliver high-performance, in-flight broadband connectivity to business jets globally. FlexExec's broadband services are now accessible via Intelsat's global, high performing, multi-layered Ku-band satellite fleet. Designed specifically to cover high-traffic business jet routes, FlexExec rides on the Intelsat global network, which integrates layers of high-throughput satellite platform (HTS) coverage from the company's proven Intelsat Epic^{NG} fleet with the company's wide-beam satellites to deliver added resiliency and redundancy. FlexExec aggregates Intelsat's space segment, the IntelsatOne ground infrastructure into a simplified, streamlined ecosystem. By having one, cohesive network, service providers will immediately gain operational efficiencies and be in a stronger position to simplify the inflight experience for flight departments.

NOAA to Acquire Thales' Advanced Ground Segment Technology to Respond to Distress Signals

October 15, 2018 - The National Oceanic and Atmospheric Administration (NOAA) in United States has chosen Thales to develop and build an operational ground station in the southwest part of the country, at Holloman Air Force Base in New Mexico, to track Global Navigation Satellite System (GNSS) satellites operating in medium Earth orbit (MEO). The ground station will receive and process 406 MHz distress beacon signals from the MEO satellites being tracked, and relay them to the US SARSAT (Search and Rescue Satellite Aided Tracking) program's Mission Control Center (USMCC), via US government communication links, for validation and distribution to rescue authorities. This ground station will be designated the National Oceanic and Atmospheric Administration's (NOAA) Southwest USA Medium-Earth Orbit Local User Terminal (SUSA MEOLUT), and will be an integral part of the MEO-based ground system operated by the USMCC.

Viasat Selected as Connectivity Provider on Gulfstream G280 Business Jets

October 15, 2018 - Viasat Inc. announced its high-speed, high-capacity Ka-band in-flight connectivity solution has been selected for the Gulfstream G280™ mid-sized business jet airframe. The Viasat in-flight connectivity system will be a line-fit option, offered directly from the Gulfstream factory for all new aircraft. It will also be available as a retrofit for in-service aircraft. The Viasat Ka-band in-flight connectivity service is proven to support more passengers and more devices simultaneously through all phases of flight, when performing bandwidth-intensive applications, including accessing virtual private networks, or streaming high-definition video calls, cloud content or live TV entertainment.

Comtech Awarded in Excess of \$5.4 Million Additional Funding from U.S. Army

October 15, 2018 - Comtech Telecommunications Corp. announced that during its first quarter of fiscal 2019, its Command & Control Technologies group, which is part of Comtech's Government Solutions segment, received additional funding in excess of \$5.4 million on the previously announced three-year \$123.6 million contract to provide ongoing sustainment services for the AN/TSC-198A SNAP (Secret Internet Protocol Router (SIPR) and Non-classified Internet Protocol Router (NIPR) Access Point), Very Small Aperture Terminals (VSATs). SNAP terminals provide quick and mobile satellite communications capability to personnel in the field. The contract has been funded \$38.9 million to-date.

AMN and Intelsat Partner to Connect Ultra-Rural sub-Saharan Africa

October 16, 2018 - Intelsat S.A. and Africa Mobile Networks (AMN) announced that Intelsat has made a strategic investment in AMN. The purpose of the investment is to accelerate the deployment of mobile connectivity to unserved communities across multiple countries in sub-Saharan Africa. At the core of AMN's solution is a low-cost, small cell solution that is powered by a highly reliable solar-based system which can be rapidly deployed and installed in less than 6 hours. As part of the long-term agreement, AMN will leverage the power, performance and efficiencies generated by Intelsat's next-generation Intelsat Epic^{NG} high-throughput satellites (HTS), as well as the 23 Intelsat satellites covering the continent to provide the optimal balance between coverage and high-throughput for the enabled sites. Once installed, the sites will connect over the Intelsat fleet to the core of the mobile network operator and deliver 2G mobile services, such as GSM voice, SMS and GPRS/EDGE packet data, with the ability to upgrade the base stations to 3G and 4G as data demands allow.

Inmarsat Celebrates 400th Installation of Jet ConneX

October 17, 2018 - Inmarsat's market-leading Jet ConneX (JX) business aviation inflight Wi-Fi solution has now been installed and activated on 400 business jets worldwide. The speed of uptake has been rapid, with 125 installations taking place in the past four months alone. Inmarsat's suite of advanced connectivity services makes today's connected business aircraft a more productive and efficient way to fly, providing an onboard connectivity experience in the air that has previously only been available on the ground. Jet ConneX is the preferred linefit option by all of the market-leading business jet manufacturers including Gulfstream, Bombardier, Dassault and Embraer. Using Inmarsat's advanced Ka-band satellite network, Jet ConneX offers data plans up to 15Mbps and delivers a reliable, consistent Wi-Fi experience that enables the business traveller to stream wherever and whenever.

Intelsat and Q-KON Enable Large-scale Broadband Access in Africa

October 17, 2018 - Intelsat and Q-KON announced that Q-KON will introduce new, multiple high-speed broadband services powered by the IntelsatOne Flex for Enterprise platform. Combining a cloud-based management platform with Intelsat's global satellite and terrestrial networks, the IntelsatOne Flex platform will enable Q-KON to rapidly deploy high-quality broadband that enables new services and applications for smaller businesses throughout Botswana, Mozambique, Namibia, South Africa, Zambia and Zimbabwe. Q-KON's offering will incorporate services from Intelsat 33e, one of Intelsat's next generation high-throughput satellites, and utilize IntelsatOne Flex for Enterprise, a managed wholesale service that removes the complexities and improves the economics of network expansion. Intelsat and Q-KON will partner on marketing the new services, while Q-KON will work with small regional and wireless ISPs and field partners for the installation and support of end-user equipment.

Intellian Awarded SPL100 Antenna System Procurement Contract for U.S. Navy by SPAWAR

October 17, 2018 - Intellian, a leading global provider of reliable maritime satellite communication solutions, has been awarded a contract by SPAWAR to deliver its new SPL100 antenna system to the U.S. Navy. The SPL100 antenna is a unique combined Ka- and L-band antenna system designed to provide the U.S. Navy with sustained information warfare capabilities. This groundbreaking new antenna system provides enhanced capabilities in both the Ka- and L-band depending on operational requirements. Intellian was commissioned by SPAWAR to design, develop, and deliver the SPL100 product for the U.S. Navy based on its innovative technology and approach along with industry-leading RF performance. The product is tested and certified to the MIL-STD 167-A & 461-F military standard. SPAWAR products and services transform ships, aircraft and vehicles from individual platforms into integrated battle forces, delivering and enhancing information warfare for Navy, Marine, joint forces, federal agencies and international allies.

Hispamar and Gilat Launch a Satellite-based Broadband Service in Brazil

October 17, 2018 - Hispamar, the Brazilian subsidiary of the Spanish satellite-based telecommunications operator Hispasat, and Gilat Satellite Networks Ltd., a worldwide leader in satellite networking technology, solutions and services, have joined together to offer a new high-quality satellite-based broadband connectivity service, focusing on both the residential and corporate market, in order to extend Internet access to the parts of the country that are currently digitally isolated. Both companies announced this plan in a special event for clients, partners and media held in São Paulo, as part of the Futurecom fair. The event was hosted by executives from both sides including Hispasat's CEO, Carlos Espinós; Hispasat's CCO, Ignacio Sanchis; Hispamar's Business Director for South America, Sergio Chaves; Gilat's Regional Vice President for Latin America, Tobias Dezordi and Gilat's General Manager of Brazil, Eduardo Bessa. The joint goal is to enhance the reach of Brazilian Internet service provider networks, thus making it easier for residents to access a high-quality service, helping to bridge the digital divide and promoting development in Brazil.

Boeing Launches New Organization to Unleash the Power of Advanced Computing and Networks

October 17, 2018 - Boeing announced a new Disruptive Computing and Networks (DC&N) organization to develop computing and communications solutions for advanced commercial and government aerospace applications. By leveraging core technologies in quantum communications and computing, neuromorphic processing and advanced sensing, the new organization will enable Boeing to develop breakthrough solutions in secure communications, artificial intelligence and complex system optimization. In addition to building internal capabilities, DC&N will also work closely with Boeing HorizonX, the company's innovation cell, to identify external partners for collaboration to accelerate growth. DC&N will be based in Southern California and operate as a part of Boeing Engineering, Test & Technology. Charles Touns, formerly the vice president and general manager of Boeing Research & Technology (BR&T), will lead the organization as vice president and general manager.

Viasat and MDA to Enhance Link 16 Capabilities for Canadian Armed Forces

October 18, 2018 - Viasat Inc. in partnership with MDA announced plans to establish a repair, maintenance and upgrade service facility for Viasat's Link 16 military communication terminals in Halifax, Nova Scotia. The Halifax facility will be strategically located near the largest East Coast bases of the Royal Canadian Navy (RCN) and Royal Canadian Air Force (RCAF), which will allow Viasat and MDA to provide enhanced technical support for Viasat's Small Tactical Terminals (STT) and other small, next generation Link 16 devices. This support will include everything from software upgrades and crypto modernization initiatives, to retrofitting Multifunctional Information Distribution System Low Volume Terminal (MIDS-LVT) Block Upgrade 2 devices for critical RCN and RCAF platforms; including Halifax class frigates and Aurora aircraft, among others.

Paradigm and Kymeta Announce Partnership on Enhanced Portable Terminal Solution

October 22, 2018 - Kymeta and Paradigm have partnered to create an enhanced portable terminal solution for military and emergency responder customers called the MANTA. The MANTA, which integrates the Kymeta™ KyWay™ terminal together with Paradigm's Interface Module (PIM®) controller, offers increased capabilities to users needing reliable communications on-the-move. Military and first responder users who need connectivity for remote incident response, in urban environments where existing infrastructure is compromised, or elsewhere in the world where operations demand reliable communications now have a rugged, easily transportable, and mobile connectivity solution. The MANTA is a one case, all-inclusive solution and needs just one cable (to connect power). The system can operate out of the case or be put onto a vehicle roof in a matter of minutes and eliminates the need for complicated wiring and rack-mounting components. The MANTA is now shipping with an iDirect X7 modem and can support modems from various suppliers.

DataCo and SES Networks to Provide Broadband Network for APEC 2018

October 23, 2018 - Papua New Guinea Government through its implementing agency, DataCo with the assistance of the Australian Government have chosen SES Networks to provide a managed data service delivering 6Gbps of high-bandwidth, low-latency connectivity to ensure the venues and all delegates have reliable, high-speed internet access during the conference from October to December 2018. SES announced that the service will utilize capacity from its O3b Medium Earth Orbit (MEO) satellite fleet to supplement existing capacity into Papua New Guinea (PNG) and will utilize existing DataCo infrastructure. To provide additional connectivity to the nation, SES Networks has created a new core network for DataCo, featuring state-of-the-art security technology to ensure detection and prevention of network intrusions.

Global Eagle, Telesat Pioneer First Ever In-flight Broadband Connectivity via LEO Satellite

October 23, 2018 - Global Eagle Entertainment announced a major milestone in the history of satellite connectivity for aviation and maritime: the successful completion of testing to demonstrate how a new, low-cost satellite network can revolutionize the way airline and maritime passengers enjoy high-speed connectivity and content. The testing began October 18th, 2018 aboard Global Eagle's 'Albatross One' test aircraft near Telesat headquarters in Ottawa, Canada. This test marked the first time an in-flight aircraft has communicated at broadband speeds with a Low-Earth Orbit (LEO) satellite system, demonstrating the capabilities of LEO for mobility customers. Telesat's Phase 1 LEO satellite was launched earlier this year with Telesat and Global Eagle agreeing to collaborate on LEO system development, testing and marketing.

Singtel Achieves Full Certification of its Two Teleports in Singapore from the WTA

October 23, 2018 - The World Teleport Association (WTA) announced that Singtel has achieved Tier full certification of its BukitTimah (Tier 4) and Seletar (Tier 4) teleports under WTA's Teleport Certification Program. They become the first teleports in southeast Asia to achieve full certification and bring the number of fully-certified teleports around the world to 23. Since its introduction at IBC 2015, the Certification program has quickly grown in popularity. Starting with one certified facility in 2015, the program has added more than 40 in 3 years, and currently has 10 teleports engaged in the quality evaluation process. Certifications have been issued to teleports operated by Eutelsat, du, COMSAT, Signalhorn, Optus, Globecom, Horizon, Media Broadcast, Elara Comunicaciones, GlobalSat, Talia, Telenor, Vivacom, Cyta, Batelco, Singtel, CETel, Etisalat, Hawaii Pacific Teleport, Intelsat, Speedcast, Telstra, AXESAT, Telespazio and Arqiva.

Global Eagle and Gilat Use Telesat's Phase 1 LEO Satellite to Demonstrate First Ever, Live Inflight Broadband Connectivity via LEO

October 24, 2018 - Gilat Satellite Networks Ltd., a worldwide leader in satellite networking technology, solutions and services, announced its key role in the first-ever demonstration of an in-flight aircraft communicating at broadband speeds with a low earth orbit (LEO) satellite system. This industry milestone was achieved using Global Eagle's "Albatross One" test aircraft with Gilat's aero modem and Telesat's Phase 1 LEO satellite, launched earlier this year. The testing included a successful demonstration of seamless connectivity and switchover between Telesat's geostationary orbit (GEO) and LEO satellites.

Kymeta Demonstrates Hybrid Data Backhaul on Cellular and Satellite Networks

October 24, 2018 - In September 2018, Kymeta, the communications company making good on the promise of global, mobile connectivity, conducted a series of field trials with United States federal agents to successfully demonstrate the benefits and feasibility of reliable, seamless communications along the southern border of New Mexico. Along with partner CopaSAT, and trial partners Cradlepoint, Inc. and TrellisWare Technologies, Kymeta demonstrated the reliability of its dynamic network capabilities that leveraged both cellular and satellite from a moving platform. Kymeta successfully demonstrated a complete hybrid network architecture to field agents operating in a communications degraded environment. The Kymeta terminal provided on-the-move connectivity to SES satellites which was blended with terrestrial LTE networks using a Cradlepoint software defined wide-area-network (SD-WAN) router.

Kratos to Build Multi-site Ka-band Gateways for SKY Perfect JSAT's New HTS Network

October 29, 2018 - Kratos Defense & Security Solutions has been awarded a contract by SKY Perfect JSAT Corporation (SJC), to design and build gateways for SJC's new High Throughput Satellite (HTS) network. The JCSAT-18 HTS satellite, launching in 2019, will deliver broadband and mobile communication services to Asia Pacific and Eastern Russia. Kratos will design and build a state-of-art Ka-band multi-site gateway solution for SJC's new JCSAT-18 satellite. Kratos' breadth of gateway solutions are assembled and tested in Kratos' integration facility to enable rapid on-site assembly and commissioning. This results in both higher quality and faster time-to-market than traditional piecemeal ground station deployments and protects SJC's investment by reducing complexity and risk. The SJC contract award is for a multi-site gateway solution that will include Kratos' high-performance 13 meter Ka-band Turning Head Antennas and Compass monitoring and control system. The pre-integrated solution will be installed at various SJC locations with control equipment centralized in the company's Network Operations Centre.

Wind Energy Marine Selects NSSLGlobal's Next Generation Technology to Manage its Fleet

October 29, 2018 - Independent satellite communications provider NSSLGlobal announced that it has

signed a three-year contract with offshore support vessel provider Wind Energy Marine. The contract comprises the deployment of NSSLGlobal's FusionIP VSAT terminal alongside its Oceanic Dynamics system aboard Wind Energy Marine's new Crew Transfer Vessels (CTVs) operating from Nordsee Farm, near Bremen, Germany. FusionIP will automatically switch between VSAT and cellular connectivity, whilst the Oceanic Dynamics suite will centralise vessel performance, and assess the impact and "push on forces" reported on offshore structures. By combining the two solutions, the vessels will benefit from seamless connectivity provided by the FusionIP terminal, along with the comprehensive motion and impact analytics delivered by Oceanic Dynamics. They will provide Wind Energy Marine with an extensive set of tools to support maintenance and operation aboard its vessels.

Global Satellite Coalition' Welcomes the Communications Alliance of Australia

October 29, 2018 - The "Global Satellite Coalition" (GSC), established by six of the world's leading satellite industry associations announced that the Satellite Services Working Group (SSWG) of the Communications Alliance of Australia, a group of satellite services-focused companies active in the Australian market, has joined the Coalition. Including the Australian group will allow the satellite industry coalition to leverage the local resources and expertise present in companies based in or serving Australia and its neighbouring countries. Australia is already home to important satellite initiatives such as the launch of two dedicated Ka band satellites by NBN to serve local communities across the vast Australian landmass, which are located outside the reach of other connectivity solutions. Together, the membership of the GSC Associations spans the globe, reflecting the total coverage of satellite through the combined support of hundreds of member companies based in every world region. The GSC's priority is to advocate the role of satellite in achieving complete connectivity from contributing to the UN's Sustainable Development Goals (SDGs) and the Broadband Commission's connectivity objectives to realizing the Network of Networks required for 5G. In addition, it will work on ensuring satellite services are an essential element of national broadband strategies, universal service programs and disaster preparedness efforts.

KVH Introduces World's Fastest, Lightest, Ultra-compact Ku-band Marine VSAT Antenna

October 31, 2018 - KVH Industries unveiled the TracPhone V3-HTS, the world's fastest, lightest, ultra-compact Ku-band marine VSAT antenna. Measuring just 37 cm (14.5 inches) diameter and weighing 11 kg (25 lbs.), the TracPhone V3-HTS is smaller in physical size than any other Ku-band marine satellite communications antenna on the market and is designed to provide faster data speeds (5 Mbps download/2 Mbps upload) than larger marine satellite antennas. The TracPhone V3-HTS's fast data speeds, combined with its diminutive size, make Internet connectivity and HD-quality streaming available aboard smaller powerboats and sailboats along with commercial vessels, such as workboats and offshore fishing boats, that do not have room for a larger satellite communications antenna. KVH designed and engineered the TracPhone V3-HTS specifically for KVH's mini-VSAT Broadband HTS network.

HughesNet Satellite Internet Launched in Peru

October 31, 2018 - Hughes Network Systems, LLC (HUGHES) announced the launch of HughesNet® high-speed satellite Internet service in Peru. Operating over the Hughes 63 West High-Throughput Satellite (HTS) payload, HughesNet now reaches 97% of Peru's population, bringing the many benefits of affordable broadband Internet access to consumers and businesses throughout the country, including in rural and remote areas that are unserved or underserved by terrestrial broadband. According to Peru's telecommunications regulator, the Supervisory Agency for Private Investment in Telecommunications in Peru (OSIPTEL), Internet penetration in rural areas of Peru currently hovers around 10%. Hughes pioneered satellite Internet service for the mass market and currently serves more than 1.2 million subscribers in the Americas, making it the world's largest high-speed satellite Internet service provider.

BROADCASTING

AsiaSat Wins MEDIAPRO 4K Top Tier Soccer Distribution Deal using AsiaSat 9

October 2, 2018 - Asia Satellite Telecommunications Company Limited announced an agreement with MEDIAPRO, a top producer and distributor of audiovisual content, to deliver live 4K top tier soccer matches on AsiaSat 9, AsiaSat's most powerful satellite serving the Asia-Pacific. After a successful year of partnership with MEDIAPRO, AsiaSat 9 was selected for broadcasting matches from top football division in 4K format. This new agreement with MEDIAPRO on AsiaSat 9 via 122°E reinforces AsiaSat as the right partner to help MEDIAPRO's clients reach their target audience within the Asia-Pacific region. AsiaSat and

MEDIAPRO's partnership began in 2017, when MEDIAPRO, the official producer for LaLiga, chose AsiaSat 5 to distribute LaLiga's live feeds in Asia in full HD.

ATEME and Optiva Media Support Orange Spain VOD Service with High Quality Video Cloud Solution

October 2, 2018 - ATEME, the emerging leader in video delivery solutions for broadcast, cable, DTH, IPTV and OTT, has partnered with Optiva Media, an independent professional services of Digital TV company, to provide Orange Spain with a new video platform for its on- demand content. Orange Spain has selected Optiva Media to transcode all the operator's catchup and VOD catalog for its "Orange TV Cine y Series" service by integrating ATEME's TITAN solution. Through the TITAN solution, Orange Spain will benefit from ATEME's best-in-class video encoding to deliver premium quality of experience to their customers, while gaining the flexibility and scalability of a fully operated cloud environment. With this collaboration, Optiva Media increases and expands its portfolio for video processing and delivery by offering a fully operated end-to-end cloud-based solution.

ARK Mediacom Demonstrates First End-to-End 5G Broadcast Network

October 3, 2018 - ARK Mediacom, Inc. (ARK) demonstrated the first end-to-end delivery of IP streaming video content in collaboration with key technology partners. The testing was successful utilizing the next generation ATSC 3.0 broadcast standard from studio origination to the consumer edge. This is an important benchmark in proving the ability to deliver IP video streaming services nationwide over the ARK broadcast network. This successful test demonstrates how ARK broadcast 5G will deliver OTT to the edge. Intelsat provided the satellite IP transmission. DigiCAP also participated by simultaneously streaming four discrete video streams over WiFi to a TV, laptop, tablet and smart phone. Hitachi Comark served as system integrator along with technologists from 13 companies and 3 continents.

TV ISLA Delivers High-performance Broadband on the Island of San Andrés with SES Networks

October 5, 2018 - Local subscribers, businesses, and civil government entities on the Colombian island of San Andrés will benefit from an enhanced user experience with a new broadband service that supports data-intensive and cloud applications with the same performance as on the mainland. TV ISLA, the leading provider of paid TV on the island, is using SES Networks' high-throughput, low-latency satellite network to offer reliable fibre-like broadband internet connectivity across the archipelago, SES announced today. The service is provided using SES's O3b fleet of MEO satellites, the only non-geostationary constellation to deliver commercial broadband services across the globe. This high-performance service will contribute to the digital future of the archipelago by helping to connect the residents and strengthen the digital economy. According to a study carried out by the Colombian Ministry of Information Technologies and Communications, internet usage on San Andrés was above the national average in 2017. However, local organisations on the island have noted that the current infrastructure connecting San Andrés with the mainland cannot meet the island's needs, which has negatively impacted education, commerce and tourism.

Foxtel Chooses Harmonic to Power First 4K UHD Service in Australia

October 9, 2018 - Harmonic announced that Foxtel, an Australian pay-TV operator with cable, direct broadcast satellite and IPTV streaming services, has launched the first 4K UHD offering in the country using a Harmonic software-based UHD solution. Harmonic's solution maximizes workflow efficiencies and ensures exceptional video quality at low bitrates for Foxtel's next-generation television services. Harmonic handles the entire UHD production and delivery workflow for Foxtel's new service using the Electra® video processor for live UHD HEVC encoding, the ProStream® X stream processor for scrambling and the RD9000 decoder to achieve superior video quality for broadcast contribution.

ATEME Enables CJ Hello to Deploy Solution for Increased HD Channel Capacity

October 16, 2018 - ATEME, the emerging leader in video delivery solutions for broadcast, cable, DTH, IPTV and OTT announced that CJ Hello, the number one cable operator and one of the leading companies in Korea's media industry, has successfully deployed its TITAN LIVE solution for its innovative HD project. This deployment enables CJ Hello to virtualize its video headend and service HD channels using terrestrial modulation without STB and reach subscribers in 23 South Korean regions. Based on the bandwidth efficiency of MPEG-2 in conjunction with ATEME's TITAN Live, CJ Hello is able to save the bandwidth and add additional HD channels.

Rede Amazônica Expands HD Television Distribution to the Amazon via Intelsat 14

October 17, 2018 - Intelsat announced that Rede Amazônica, an affiliate of Rede Globo, will rely on Intelsat to accelerate and expand the reach of its high definition (HD) programming via digital terrestrial television (DTT) broadcast in the Amazon region of Brazil. As part of the new, multi-year agreement, Rede Amazônica will leverage C-band satellite services via Intelsat 14, Intelsat's newest video neighborhood in Latin America, located at 315°E. The addition of Intelsat 14 further strengthens and expands the breadth and depth of Intelsat's three premier video neighborhoods in Latin America. Combined, Intelsat 11, Intelsat 21 and Intelsat 34 distribute top-tier sports, entertainment, news and education programming to over 193 million viewers, delivering 77 of the 100 most-watched channels, including nearly 150 in HD. The strength and reach of Intelsat's video neighborhoods in Latin America offers Rede Amazônica the opportunity to consolidate the production and distribution of 13 HD channels to one location, allowing it to reduce operational costs and simultaneously expand its regionalized content offerings in the Amazon.

4KUNIVERSE Launches on HOTBIRD over Europe, Middle East and North Africa

October 17, 2018 - On the occasion of MIPCOM 2018, 4KUNIVERSE, a 24/7 4K HDR general entertainment TV channel, airing original TV series, movies, documentaries, sports and primetime programming, all in 4K HDR, has confirmed that it will be launching on the popular HOTBIRD video neighbourhood on November 1st, 2018. Once positioned on HOTBIRD, the channel will be capable of reaching key cable and IPTV networks, reaching tens of millions of subscribers. 4KUNIVERSE is encrypted and encoded with Wide Colour Gamut, at 50 frames per second (50p), HLG HDR and colour space enabling 1.07 billion colours.

Globecast Extends Partnership with ATP Media for Distribution of ATP Tennis Coverage in Europe, Asia and America

October 17, 2018 - Globecast has renewed its partnership with tennis rights owner ATP Media, the broadcast production and distribution arm of the ATP World Tour, to bring HD coverage of tennis events to viewers around the globe. The new three-year deal extends Globecast's relationship with ATP Media, with Globecast supplying ad hoc distribution services for the ATP World Tour Masters 1000s, the ATP World Tour 500s, the Next Gen ATP Finals, and the Nitto ATP Finals — which total more than 20 events. Acting as a distribution hub for ATP Media, Globecast consolidates all live content produced by ATP Media's productions around the world and provides helpdesk support to all the international rights holders. Globecast provides satellite backhaul from venues to London, combines them with incoming fiber deliveries, then selects content to create a master feed. This hybrid model ensures successful delivery of an extremely resilient, redundant world feed. This feed, as well as supplementary feeds covering additional matches, are then distributed to broadcasters in Europe, Asia and America.

LAUNCH / SPACE

SSL Selected by NASA to Develop Critical Technologies for On-orbit Servicing and Space Exploration

October 1, 2018 - SSL, a Maxar Technologies company, and a leading provider of innovative satellites and spacecraft systems, announced today it was selected by NASA for two separate public-private partnerships to develop two vital "Tipping Point" spacecraft technologies. NASA's Tipping Point awards are designed to foster the development of commercial space capabilities and benefit future NASA missions. A technology is considered by NASA to be at a tipping point if an investment in a demonstration is likely to result in a high likelihood of infusion into a commercial space application, and significant improvement in the ability to successfully bring the technology to market.

PLD Space and ZARM Sign a Launch Agreement for the First Test Flight of ARION 1 Launch Vehicle

October 2, 2018 - The German Center of Applied Space Technology and Microgravity (ZARM) and PLD Space signed a Commercial Launch Service Agreement. In the first test flight of the suborbital launch vehicle ARION 1 – currently scheduled for October 2019 -, PLD Space will launch into space a payload provided by ZARM. The research centre is the first customer to sign a Commercial Launch Agreement with PLD Space for launching payloads onboard ARION 1. Next year PLD Space will perform their first launch attempt into space, trying to reach space and return the launch vehicle back to Earth. In this Test Flight 1, ARION 1 will fly with 100kg of payload for scientific research and technology demonstration. ZARM will utilize one of the four available payload compartments to fly into space a payload. Remaining compartments are planned to be used by PLD Space internally, for additional vehicle sensors and demonstrating technologies for future larger vehicle developments.

Investing in Australia's Satellite Capability

October 4, 2018 - The Australian Space Agency has signed a statement of strategic intent with Sital Australia, a designer and manufacturer of satellites, enhancing the competitiveness and capability of Australia's space industry. Sital Australia is a subsidiary of Sital S.p.A, the largest privately-owned space company in Italy. The Coalition Government committed \$41 million to establish the Australian Space Agency and is investing more than \$260 million to grow Australia's space satellite infrastructure. This is part of the Coalition's investment of around \$2.4 billion to grow our space sector, and research, science and technology capabilities. The Agency supports the long-term development and application of space technologies, growing our domestic space industry and securing our place in the global space economy. The Coalition has an ambitious plan for the Agency; to triple the size of the sector, adding another \$12 billion annually to the Australian economy by 2030, and creating up to 20,000 new jobs. Sital Australia opened a new branch in Adelaide in June 2018, becoming one of the leading local companies in the design and manufacture of satellites of up to 300kg.

Thales Alenia Space and OHB System Sign Contract for PLATO

October 4, 2018 - Thales Alenia Space, the joint company between Thales (67%) and Leonardo (33%), announced today that it has signed a contract with OHB System for the new ESA program PLATO (PLANetary Transits and Oscillations of stars). OHB System AG will be the prime contractor with Thales Alenia Space as a partner. PLATO will be the third medium-class (M3) science mission in ESA's Cosmic Vision Program, following Solar Orbiter (M1) and Euclid (M2), and preceding Ariel (M4). The satellite will be launched in 2026 for an initial mission length of 4.5 years. The aim of PLATO is to find and study extrasolar planetary systems, especially terrestrial type planets in the habitable zone (compatible with water in the liquid state) around stars similar to our Sun. Unlike the previous missions, CoRoT and Kepler, it will offer the unique ability to carry out stable, wide-field observations of bright stars over a very long period (two to four years), enabling us to detect and characterize planets orbiting slowly around their sun, such as the Earth. It will be placed into orbit around the L2 Lagrangian point, and will carry a scientific payload comprising 26 cameras and the associated electronics.

OHB Group Signs Letter of Intent for Cooperation with Blue Origin

October 4, 2018 - The OHB Group signed a Letter of Intent (LOI) for future cooperation with the U.S. aerospace company Blue Origin. The document was signed by Dr. Lutz Bertling and Kurt Melching, members of the Management Board of OHB SE, Hans J. Steininger, CEO of MT Aerospace and Bob Smith, CEO of Blue Origin, during a bilateral meeting at the International Space Congress IAC in Bremen. The aim is to explore the extent to which OHB, MT Aerospace and Blue Origin can work together across the Atlantic. The companies have partnered on a future Blue Moon mission to the lunar surface – Blue Origin's lunar lander capable of bringing several metric tons of cargo to the Moon. The companies will collaborate on a payload on board Blue Origin's reusable orbital rocket New Glenn. The use of these systems and possible cooperation will be the subject of in-depth discussions in the transatlantic dialogue.

JAXA and SRON Release Joint Statement to Collaborate in Space Science and Exploration.

October 5, 2018 - JAXA and the Netherlands Institute for Space Research (SRON) confirmed their intention to collaborate in space science and exploration. With the Dutch minister of Education, Culture and Science Ingrid van Engelshoven and Netherlands Ambassador to Japan Aart Jacobi present, JAXA Vice President Hitoshi Kuninaka and SRON Director Rens Waters signed the joint statement at Embassy of the Kingdom of the Netherlands in Tokyo. Both agencies have confirmed the importance of continuing and strengthening collaborative relationship in the future science missions such as SPICA, XRISM, and Athena through jointly considering; potential cooperation on the hardware, proposal and design of missions for future implementation, and development of critical technology for future missions. JAXA and SRON have developed the relationship over a long time in space science. Releasing this statement will enhance and accelerate the cooperation. From the dawn of X-ray astronomy, the Netherlands and Japan shared a long history of cooperation. Cooperating in a wide range of field in space science will bring about fruitful scientific results.

SSL Continues Positive Momentum in Growing U.S. Government Pipeline

October 8, 2018 - SSL, a Maxar Technologies company has been selected as one of three companies qualified to compete for Department of Defense business under a contract called Small Spacecraft Prototyping Engineering Development and Integration – Space Solutions (SSPEDI). NASA's Ames Research Center in California's Silicon Valley manages the contract under an interagency agreement with the

Department of Defense's Space Rapid Capabilities Office. The new contract is one of a number of innovative and promising programs in SSL's growing U.S. government portfolio. SSPEDI establishes a rapid and flexible method for the Department of Defense's Space Rapid Capabilities Office to acquire commercially-developed solutions for small to medium spacecraft and related systems from a pool of pre-qualified candidates. As one of the awardees, SSL is eligible to compete for multiple future awards over the five-year ordering period of the contract, up to a cumulative value of \$750 million. To supercharge its offerings, SSL is harnessing the collective power of Maxar Technologies, and will closely partner with Maxar's geospatial insights company, Radiant Solutions. Radiant will study next-generation systems for Intelligence, Surveillance, and Reconnaissance (ISR) and contribute its world-class mission engineering expertise to the company's solutions.

EC to Acquire Thales Alenia Space's Advanced Technology to Respond to Distress Signals

October 8, 2018 - Thales Alenia Space has won a contract from the European Commission (EC) to develop and build an operational ground station on La Reunion Island to track Global Navigation Satellite System (GNSS) satellites in medium Earth orbit (MEO). The ground station will receive and process 406 MHz distress beacon signals from the MEO satellites being tracked, and relay them to the SAR/Galileo network via the French Mission Control Center (FMCC) at the CNES facility in Toulouse. The contract also included the procurement of the best possible hosting site for this ground station. This MEOLUT Next will enhance the Commission's contribution to the Cospas/Sarsat Search And Rescue system by extending its coverage in the South Indian ocean, contributing to worldwide coverage. It complements the three MEOLUTs that are already deployed around Europe, in Larnaca (Cyprus), Maspalomas (Grand Canaria) and Spitzbergen (Norway) and are under responsibility of the GSA. The MEO system, which replaces the legacy LEO (low Earth orbit) system, is designed to offer a faster response and better location data in near real time for search & rescue (SAR) authorities, using spacecraft and ground facilities to detect and locate signals from the 406 MHz distress beacons.

China Launches New Remote Sensing Satellites

October 9, 2018 - Two remote sensing satellites were successfully sent into space on October 9 from the Jiuquan Satellite Launch Center in northwest China. The satellites, both part of the Yaogan-32 family, were launched by a Long March-2C rocket with an attached upper stage at 10:43 a.m. Beijing time. The satellites have entered their planned orbits and will be used for electromagnetic environment surveys and other related technology tests. This was the first flight of the upper stage named Yuanzheng-1S, or Expedition-1S. It cooperated well with the Long March-2C rocket and significantly improved the carrying capacity of the rocket. The Yuanzheng-1S, a simplified version of the Yuanzheng-1, is designed for short flights, and will be mainly used for commercial launches.

Boeing HorizonX Ventures Invests in Accion Systems to Propel Satellite Capabilities

October 10, 2018 - Boeing announced its investment in Accion Systems, a Boston, Mass., based startup pioneering scalable electric propulsion technology to transform satellite capabilities in and beyond Earth's orbit. Accion's new Tiled Ionic Liquid Electro Spray (TILE) in-space propulsion system aims to increase the lifespan and maneuverability of satellites and other vehicles in space. Leveraging a non-toxic, ionic liquid propellant and postage stamp-size thrusters, the TILE system is smaller, lighter and more cost-effective than traditional ion engines. Boeing HorizonX Ventures targets investments that help scale startup innovation in aerospace. Its portfolio is made up of companies specializing in autonomous systems, additive manufacturing, energy and data storage, advanced materials, augmented reality systems and software, machine learning, hybrid-electric and hypersonic propulsion and Internet of Things connectivity.

Rocket Lab Unveils New High-Volume Production Facility

October 15, 2018 - Rocket Lab has expanded its global footprint with the unveiling of a new production facility that rethinks the way orbital rockets are built. The new 7,500 sq/m (80,700 sq/ft) rocket development and production facility in Auckland, is designed for rapid mass production of the Electron rocket. Adding to Rocket Lab's existing production facility and headquarters in Huntington Beach, California, the new facility brings Rocket Lab's manufacturing footprint to more than 4.5 acres and enables the company to build an Electron rocket every week. Electron launch vehicles undergo final assembly at the new Auckland facility, where all parts go through a streamlined process for testing and integration into the rocket before launch from Rocket Lab's private orbital launch pad, Launch Complex 1, on the Māhia Peninsula.

Kleos Space Signs Second MoU with Airbus Defence and Space

October 15, 2018 - Kleos Space S.A., state-of-the-art space technology operator, announces the signature of a second Memorandum of Understanding with Airbus Defence and Space, as both companies investigate opportunities to collaborate for the manufacture In-Space of structural elements. Kleos Space and parent Magna Parva (UK) have developed an In-Space manufacturing system that will provide a method of producing huge carbon composite 3D structures in space. A prototype system has been successfully built and tested under 'near space' conditions at Kleos' development facility. It demonstrates the potential for production of assemblies, equipment or even buildings from fully cured and consolidated carbon fibre materials, potentially miles in length.

Arianespace to Launch the National Advanced Optical System (NAOS) for OHB Italia

October 17, 2018 - Arianespace is to launch the National Advanced Optical System (NAOS) under the term of a turnkey contract between OHB Italia and the Luxembourg's Directorate of Defence. Using a Vega C or Vega rocket, the earth-observation mission will be conducted from the Guiana Space Center in Kourou, French Guiana, in 2022. Built by OHB Italia, NAOS will weigh approximately 600 kg. at launch and is designed to have a nominal service life of at least 7 years once positioned in a sun-synchronous orbit at around 500 km. Designed for governmental and military purposes, the high-resolution reconnaissance satellite will provide global coverage, being able to capture more than one hundred images per day. By collecting the satellite's data, Luxembourg intends to participate more actively in the Europe and North Atlantic Treaty Organization (NATO) defense efforts.

Lockheed Martin-built Protected Communications Satellite Successfully Launched

October 17, 2018 - The fourth Advanced Extremely High Frequency (AEHF) protected communication satellite, built by Lockheed Martin for the U.S. Air Force, was successfully launched today at 12:15 a.m. from Cape Canaveral Air Force Station aboard a United Launch Alliance Atlas V 551 rocket. The AEHF system provides global, survivable, highly secure and protected communications for strategic command and tactical warfighters operating on ground, sea and air platforms. The satellite will now move into a testing phase prior to hand over to the Air Force. With four satellites in orbit, the AEHF constellation completes a geostationary ring and will be able to deliver global coverage.

Ovzon Signs Agreement with SpaceX for First Satellite Launch

October 16, 2018 - In an important step towards growing its satellite service offering, Ovzon has entered into an agreement with SpaceX for launch of Ovzon's first GEO satellite. The launch is expected to take place no earlier than Q4 2020. The next step for the company is to finalize the procurement of the satellites. Ovzon is a provider of satellite-based mobility broadband services, targeting end-markets and users in need of high data speeds combined with mobility. Applications include real-time sensor and video upload, either from moving or highly mobile platforms, including small vehicles, small aircraft or UAVs, or transmissions directly from on-site staff holding the terminals and transmitting on-the-go.

ESA Awards Contract to Thales Alenia Space for Operational Phase of Galileo Ground Mission and the Galileo Security Facility

October 18, 2018 - Thales Alenia Space announced the signature of a contract with the European Space Agency (ESA), acting on behalf of the European Commission (EC) and the European GNSS Agency (GSA), for the development and deployment of the next version of the ground-based Galileo Mission Segment (GMS) and the Galileo Security Facility (GSF), together known as WP2X. This contract, amounting around 324 million euros, will also include maintenance of the currently deployed operational versions. The main goal of this operational phase is to achieve the Full Operational Capability (FOC) for Galileo Open service by the end of 2020. For the PRS – which many participating Member States are eager to use for their governmental applications – the aim is to reach Initial Operational Capability (IOC). The main challenges are the modernization of the infrastructure and the enhancement of security – including cyber security. These evolutions will be carried out in parallel with maintenance and operation of the already deployed versions (Galileo services were declared operational for initial service in December 2016). The current GMS/ GSF infrastructure includes more than ten million Lines of Code (LoC).

Arianespace Launches BepiColombo, Europe's First Mission to Mercury, in Cooperation with JAXA

October 19, 2018 - Arianespace has successfully launched the BepiColombo spacecraft on its mission to explore Mercury, the smallest and least known terrestrial planet in the Solar System from the Guiana Space Center (CSG), Europe's Spaceport in French Guiana, South America. BepiColombo is an interdisciplinary

scientific mission designed to study the planet Mercury, carried out jointly by the European Space Agency (ESA) and the Japan Aerospace Exploration Agency (JAXA). Conducted jointly by ESA and JAXA, BepiColombo is an interdisciplinary mission designed to send two probes to Mercury, the smallest and least-explored planet in our Solar System, as part of a single composite spacecraft. BepiColombo is Europe's first mission to Mercury, and will enable a better understanding of the planet's history, geology, composition, atmosphere and magnetosphere.

French-Chinese CFOSat Satellite to Study Climate Change in the World's Oceans

October 22, 2018 - The French-Chinese CFOSat satellite will be launched on Monday 29 October atop a Chinese Long March 2C vehicle from the Jiuquan launch base in Inner Mongolia. This science mission to study ocean surface winds and waves is the first joint project pursued under French-Chinese space cooperation. Developed by CNES and the China National Space Administration (CNSA), the satellite will carry two radar instruments: SWIM (Surface Waves Investigation and Monitoring), developed by France, which will survey the length, height and direction of waves; and SCAT (wind SCATterometer), developed by China, which will measure the strength and direction of winds. The two instruments will enable measurements of winds and waves to be acquired simultaneously for the first time. CFOSat will thus characterize the dynamics of waves and how they interact with surface winds more comprehensively than ever before. The CFOSat mission has been designed to gain new insights into ocean surface characteristics (winds and waves) and their impacts on the atmosphere-ocean exchanges that play a key role in the climate system. The satellite will also provide precise data on deep-sea wave conditions, which have a bearing on the impact of waves on coastal areas.

China Launches HY-2B Satellite to Monitor Marine Environment

October 25, 2018 - China sent a new marine satellite into orbit on October 25. Long March-4B rocket carrying the HY-2B satellite took off at 6:57 a.m. from the Taiyuan Satellite Launch Center in north China's Shanxi Province. The HY-2B is an ocean dynamic satellite, which will form a network with the subsequent HY-2C and HY-2D for maritime environmental monitoring. Used to collect oceanic data, the HY-2B can provide 24/7 all-weather observation with a design life of five years. It can cover 90 percent of the world's oceans, and obtain dynamic ocean environment data, such as sea surface temperature, wind speed, sea ice, and rainfall level. The launch was the 288th by the Long March rocket series.

Viasat, SpaceX Enter Contract for a Future ViaSat-3 Satellite Launch

October 25, 2018 - Viasat Inc has selected SpaceX to launch one of its ViaSat-3 satellite missions. The Viasat mission is scheduled to launch aboard a Falcon Heavy in the 2020 - 2022 timeframe. Viasat chose the SpaceX Falcon Heavy for its ability to fly a near direct-injection mission, inserting a ViaSat-3 satellite extremely close to geostationary orbit – as a result, the spacecraft can begin in-orbit testing (IOT) quickly after launch, rather than spending weeks or months performing orbit raising maneuvers. This is expected to enable Viasat to turn on its ultra-high-speed broadband service much quicker after launch than is possible with other launch vehicles. The ViaSat-3 class of Ka-band satellites is expected to provide vastly superior capabilities in terms of service speed and flexibility for a satellite platform. The first two satellites will focus on the Americas and on Europe, Middle East and Africa (EMEA), respectively, with the third satellite planned for the Asia Pacific (APAC) region, completing Viasat's global service coverage. Each ViaSat-3 class satellite is expected to deliver more than 1-Terabit per second of network capacity, and to leverage high levels of flexibility to dynamically direct capacity to where customers are located.

SSL Delivers Two Earth Observation Satellites to Vandenberg Launch Base

October 25, 2018 - SSL, a Maxar Technologies company, and a leading provider of innovative satellites and spacecraft systems, has shipped two Earth observation satellites to Vandenberg Air Force Base where they will be launched on Spaceflight's first Sun Synchronous dedicated rideshare mission aboard a SpaceX Falcon 9 launch vehicle. SSL manufactured SkySat 14 and 15 for commercial Earth observation company Planet, advancing SSL's leadership in the manufacture of innovative, small form-factor satellites. The imaging satellites feature 72 cm resolution and will be added to Planet's SkySat constellation, which currently includes 11 SSL-built small satellites. The SkySat constellation complements Planet's Dove constellation, with the most satellites on orbit from a commercial imagery provider.

Sky and Space Global Starts Construction and Integration of its Network of 200 Nano-satellites

October 29, 2018 - Sky and Space Global Ltd (SAS) has completed the Critical Design Review (CDR) of the Pearls satellite, which now allows the company to immediately proceed with assembly and integration of

the nanosatellite network, the company announced. The CDR process was undertaken by global aerospace construction partner GomSpace, a European based specializing in the construction and testing of bespoke nano-satellites. SAS will deploy a constellation of 200 highly sophisticated nano-satellites over the Equatorial Belt. The network of nano-satellites will provide around the clock affordable voice, data, instant messaging, M2M and IoT communications, enabling SAS to implement its vision to provide communication services to Anyone, Anywhere, Anytime. SAS services will also bring to the equatorial region a huge range of life saving and other services, including search and rescue, disaster management, emergency response, security alarms and recreational tracking. This is in addition to many other services including cellphone applications, offshore communications, smart farming, interactive TV, airplane, vessel and animal tracking, water and electric metering, grid monitoring and ATM.

Launch of the H-IIA F40 Encapsulating GOSAT-2 and KhalifaSat

October 29, 2018 - Mitsubishi Heavy Industries, Ltd. and JAXA successfully launched H-IIA Launch Vehicle No. 40 (H-IIA F40) which encapsulates Second Greenhouse Gases Observing Satellite "IBUKI-2" (GOSAT-2) and KhalifaSat, a remote sensing Earth observation satellite. at 13:08:00 on October 29, 2018 (JST) from the JAXA Tanegashima Space Center. The launch and flight of H-IIA F40 proceeded as planned. The separations of GOSAT-2 and KhalifaSat were confirmed respectively at approximately 16 minutes and 09 seconds and 24 minutes and 15 seconds after liftoff. GOSAT-2, constructed by Mitsubishi Electric (MELCO), will monitor greenhouse gases from a circular sun-synchronous orbit at an altitude of 613 kilometers (381 miles, 331 nautical miles) and inclination of 97.84 degrees, revisiting each point of observation every three days. KhalifaSat, manufactured in the United Arab Emirates at the Mohammed bin Rashid Space Centre (MBRSC), is the first satellite built in the clean rooms of the Dubai government's space science and research facility and the first to be developed entirely by a team of Emirati engineers.

LM-2C Successfully Launched CFOSAT, Chinese-French Oceanography Satellite

October 29, 2018 - Chinese-French Oceanography Satellite, known as CFOSAT, was successfully launched by Long March 2C (LM-2C) launch vehicle from Jiuquan Satellite Launch Center (JSLC), aboard with the piggyback satellites for the international and domestic customers who have contracted with China Great Wall Industry Corporation (CGWIC). The piggyback payloads include BSUSat-1 satellite of Belarusian State University and 6 scientific experimental satellites and technology verification satellites from the domestic space companies. As the main passenger of this mission, CFOSAT is the first satellite mission conducted jointly by China National Space Administration (CNSA) and Centre National d'Etudes Spatiales (CNES). It will be the first satellite dedicated to remote sensing of ocean surface winds and waves jointly and simultaneously on a wide swath-width, which has been involved as a part of Global Space Climate Observatory and is capable to observe the land surface parameters.

Rocket Lab to Launch Fleet's Two 'Proxima' Satellites

October 29, 2018 - US orbital launch provider Rocket Lab has signed a contract with fast-growing Internet of Things (IoT) start-up Fleet Space Technologies to launch two satellites that will form the foundation of a global IoT communications constellation. The two Proxima satellites are the first of a fleet of small, low-cost satellites that will provide internet connectivity for millions of sensor devices based in remote locations on Earth. The Fleet satellites will be launched inside Rocket Lab's in-house designed and built Maxwell dispenser. The Proxima I and II satellites are a pair of identical 1.5 U CubeSats designed and built by Fleet. The satellites will mark the first commercial tests of Fleet's software-defined radios, enabling it to transmit data efficiently across both S-band and L-band frequencies in space. The satellites will ultimately help form the beginning of a constellation of more than 100 nanosatellites that, together, will act as a dedicated Internet of Things (IoT) space network for enterprises across the world.

Telesat's Telstar 18 VANTAGE Satellite Now Operational over Asia Pacific

October 31, 2018 - Telesat announced that its new Telstar 18 VANTAGE high throughput satellite (HTS) is fully operational at 138 degrees East and has entered commercial service. Telstar 18 VANTAGE was launched by a SpaceX Falcon 9 rocket from Cape Canaveral Air Force Station in Florida on September 10 and will serve growing demand for mobility, enterprise and telecom services across the Asia Pacific region. Built by SSL, Telstar 18 VANTAGE is the latest in a new generation of Telesat satellites with capacity optimized to serve the types of bandwidth intensive applications increasingly in demand by users worldwide. It replaces and expands on Telesat's Telstar 18 satellite through extensive C-band capacity over Asia, Ku-band HTS spot beams over Indonesia and Malaysia, and five additional regional Ku-band beams. The coverage of Telstar 18 VANTAGE reaches across Asia all the way to Hawaii – in both C and Ku-band –

enabling direct connectivity between any point in Asia and the Americas. Its innovative Ku-band payloads of HTS spot beams and focused regional beams provide customers operating in Southeast Asia, Mongolia, Australia & New Zealand, and the North Pacific Ocean with greater choice and flexibility in deploying high performing broadband networks.

EXECUTIVE MOVES

John Hawker Strengthens Kacific Sales Team, Leading Efforts across Melanesia and the Pacific

October 1, 2018 - Kacific Broadband Satellites has appointed John Hawker as Vice President Sales, Melanesia and the Pacific. John has held senior roles in both the telecommunications and satellite industries in several of Kacific's key markets throughout the Pacific and South East Asia. His experience in developing broadcast, data and telecommunication networks is highly relevant to the company's plans for the region. John comes to Kacific after serving as VP Sales Australia, PNG and Pacific islands for ABS Global. He previously held the position of Director, Asia Pacific for International Datacasting. At Kacific he will establish service provider relationships to grow broadband services in Melanesia and the Pacific, including Papua New Guinea, Solomon Islands, Vanuatu, Fiji, Micronesia, Tuvalu, French Polynesia and Kiribati. He will be able to draw on his experience with VSAT service providers in the Pacific, Southeast Asia and Africa as he helps the company forge strategic alliances to expand the Kacific ecosystem in the region leading up to the launch of Kacific-1 in 2019.

David Chégnion to Succeed Mustapha Elriz at Satconsult, Subsidiary of the Euroconsult Group

October 4, 2018 - SATConsult, a member of the Euroconsult Group, announces the appointment of David Chégnion as Managing Director. In this capacity, David will succeed Mustapha Elriz who founded the company in 2006 and has served as its CEO since this date. Mustapha will continue to have a close relationship with the company, remaining a major shareholder and holding a position of Member of the Senior Advisory Board. In order to provide for a smooth transition process, David joined SATConsult in March of this year to work by Mustapha's side in the position of Deputy Managing Director. David brings with him over 25 years of experience in the telecom and satellite services industries and a balanced track record in international strategy and the management and development of organizations. Previously, David served as Vice President, Head of Strategic Development - Secure Communications at Airbus Defence & Space - CIS from 2014 and Vice President, Sales & Business Development - Government Communications from 2008. David also managed the London-based satellite operator Europe*Star (sold to Intelsat in 2005) after holding several managerial positions in Alcatel Space (now Thales Alenia Space).

Eutelsat Appoints Gary Donnan as Chief Innovation Officer

October 16, 2018 - Gary Donnan will join Eutelsat Communications on 29 October as Chief Innovation Officer, reporting to Chief Executive Officer Rodolphe Belmer. In this role, Gary is tasked with defining Eutelsat's innovation roadmap and the identification and cross-functional development of innovation initiatives across the Group. He will also focus on forging stronger links between Eutelsat and the external innovation ecosystem to step up the roll-out of emerging technologies throughout the company. Gary Donnan brings significant experience in cross-functional and collaborative management. He joins Eutelsat after eleven years at Technicolor where he conducted large-scale transformation projects and held several key positions in the fields of technology, research and innovation, gaining expertise in the broadcasting industry. As a member of Technicolor's Executive Committee, he was successively Executive Vice President (EVP) for Research and Innovation, then EVP for technology and standards. Prior to joining Technicolor, Gary held similar research and innovation positions at Alcatel, including research and development for the deployment of fibre, cable, radio and satellite networks in various parts of the world. He is therefore well versed in telecom technologies as a whole.

Inmarsat Appoints Kai Tang as SVP of Business and General Aviation

October 16, 2018 - Inmarsat has appointed Kai Tang as Senior Vice President of Business and General Aviation (BGA), who joins the Inmarsat Aviation business from Inmarsat Government, where he held the role of Chief Commercial Officer. Kai is an experienced satellite communications professional with industry expertise ranging across government, maritime and aviation. During his seven years at Inmarsat, he has held the role of Vice President of Commercial Strategy and Operations for Inmarsat's U.S. Government Business Unit and also played a key role within the company's Global Xpress development programme. Kai will be responsible for Inmarsat's ground-breaking portfolio of connectivity services for the business

aviation industry, including its global, high-speed Jet ConneX inflight Wi-Fi solution, which delivers an in-the-air broadband experience comparable to on-the-ground connections. In addition, he will oversee next year's business aviation launch of the European Aviation Network (EAN), the world's first inflight broadband that combines dedicated satellite coverage with a complementary LTE-based ground network.

Kymeta Announces Transition of CEO Nathan Kundtz

October 29, 2018 – Kymeta, the communications company making good on the promise of global mobile connectivity, announced that Chief Executive Officer Dr. Nathan Kundtz will leave his current role with Kymeta next month and will continue in an advisory role to the company going forward. Marc Stolzman, Kymeta's President and Chief Financial Officer, will guide the company's day-to-day operations in the interim while the Kymeta Board of Directors conducts a global search for the next Kymeta chief executive officer.

REPORTS

Satellite Operator Financials Show Slight 2017 Growth via New Pivot Strategies and Data Verticals

October 16, 2018 - NSR's *Satellite Industry Financial Analysis, 8th Edition (SIFA8)*, released today, finds most operators demonstrated higher fill rates in 2017, though aggregate operator revenues increased by just 0.5%. Increasing demand in mobility, broadband and backhaul has enabled operators to post higher contractual volumes towards both FSS and HTS fleets in a supply-heavy market; however, this is balanced by declining capacity pricing and shorter contract durations – resulting in decreased backlog, at a CAGR of -4% over last 5 years. On top of 7-10% growth in fill rates, operators have been able to post significant growth in data verticals, with customers moving from legacy FSS to new HTS fleets. Although, with a declining video revenue base and a low EBITDA service-oriented business, operators continuously look further to build growth through downstream distribution partnerships as demonstrated by Eutelsat with Orange for Konnect VHTS European broadband and by Sky Perfect JSAT and APT Mobile Satcom for mobility.

Earth Observation Data Market to Reach \$2.4 Billion, VAS Market Potentially at \$9 Billion by 2027

October 19, 2018 - According to the 11th edition of Euroconsult's report, *Satellite-Based Earth Observation: Market Prospects to 2027*, the commercial Earth observation (EO) data market could reach \$2.4 billion in 2027, driven by a mixture of defense and new commercial markets and supported by the arrival of new constellation operators. The EO market for value-added services (VAS) should reach over \$5.7 billion by 2027; potential new service areas with entrants focusing on developing constellations to support high-frequency change detection could even see the VAS market reaching \$9 billion in our upside scenarios.

Government & Military Satcom in Rebound Phase Across all Markets

October 30, 2018 - NSR's newly released *Government and Military Satellite Communications, 15th Edition* report finds a rebounding market entering a growth phase after several years of stagnation. Geopolitics, acquisition reform, and expanded low-cost offerings from the commercial market, all point to expanded opportunities across all regions and applications. With over \$71 billion in cumulative revenue expected by 2027, commercial suppliers to the MILSATCOM market stand to see sizable gains.

UPCOMING EVENTS

Global MilSatCom 2018 & Small Satellite and Disruptive Space Technology Focus Day

5-8 November, London, UK, <http://www.globalmilsatcom.com/janeswl>

As Europe's leading military communications event for satellite professionals, Global MilSatCom's reputation has been built on the high-level international speakers and decision makers it attracts and the fantastic interactive opportunities offered during the conference sessions, workshops and networking receptions. NEW FOR 2018, a pre-conference 'Small Satellites and Disruptive Space Technology Focus Day' on the 5th November, exploring how the next generation of launch capability, research and development of small, cube, micro and nano-satellites and how military agencies and industry are collaborating in this new era of SATCOM. Register for the conference by 28th September to save £100! To register or for more information visit: <http://www.globalmilsatcom.com/janeswl>

Asia-Pacific Regional Space Agency Forum (APRSF-25), 6-9 November, Singapore, https://www.aprsaf.org/annual_meetings/aprsaf25/meeting_details.php?mail159

Myanmar Satellite Forum 2018, 8 November, Nay Pyi, Myanmar, <http://www.talksatellite.com/MSF%202018%20a.html>

CYBERSAT18, 14-16 November, Arlington, VA, USA, www.cybersatsummit.com

India Satcom 2018, 20-21 November, New Delhi, India, <https://www.broadbandindiaforum.com/india-satcom-2018.html>

The HTS 2018 Roundtable, 4 December, London, U.K, <https://www.uk-emp.co.uk/current-events/hts-roundtable-2018/>

Smallsat Development & Commercialisation Asia Summit 2018, 11-12 December, Singapore <https://smallsatdevelopment.iqpc.sg/>

SIA's 14th Annual DoD Commercial SATCOM Workshop, 11-13 December, Arlington, VA, USA <http://www.dodsatcom.com/>

CES - Consumer Electronics Show, 8-11 January, Las Vegas, NV, USA, <http://www.ces.tech/>

PTC'19, 20-23 January, Honolulu, Hawaii, USA, <https://www.ptc.org/ptc19/>

Convergence India 2019, 29-31 January, New Delhi, India, <http://www.convergenceindia.org/>

CSTB 2019, 29-31 January, Moscow, Russia, <https://en.cstb.ru/>

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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.