

# APSCC Monthly e-Newsletter

## May 2018

The **Asia-Pacific Satellite Communications Council (APSCC) e-Newsletter** is produced on a monthly basis as part of APSCC's information services for members and professionals in the satellite industry. Subscribe to the APSCC monthly newsletter and be updated with the latest satellite industry news as well as APSCC activities! To renew your subscription, please visit [www.apscc.or.kr](http://www.apscc.or.kr). To unsubscribe, send an email to [info@apscc.or.kr](mailto:info@apscc.or.kr) with a title "Unsubscribe."

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

### INSIDE APSCC

#### **APSCC 2018 Satellite Conference & Exhibition**

**2-4 October, Shangri-La Hotel, Jakarta, Indonesia, <http://apsccsat.com>**

The APSCC Satellite Conference and Exhibition is Asia's must-attend executive conference for the satellite and space industry, where business leaders come together to gain market insight, strike partnerships and conclude business deals. The APSCC 2018 Satellite Conference & Exhibition, with the theme **#SATECHconnect**, will incorporate industry veterans and new players into the program to reach out to a broader audience. Mark your calendar for the APSCC 2018 and expand your business network while hearing from a broad range of thought provoking panels and speakers representing visionary ideas and years of business experience in the industry. Contact [info@apscc.or.kr](mailto:info@apscc.or.kr) for general inquiries to the APSCC 2018.

**ConnecTechAsia 2018**, 26-28 June, Singapore, [www.connectechasia.com](http://www.connectechasia.com)

**ConnecTechAsia Summit** is the pinnacle where over 150+ regional thought leaders industry and influencers meet to share about the driving forces of today's interconnected ecosystem. Covering 3 tracks on **NetworkComms**, **BroadcastMedia** and **EmergingTech**, the Summit themed **"Digital Business Transformation"** will feature a dedicated session on **Satcomm (Day 1)** covering topics such as industry analysis, satellite for 5G, LEO-GEO-MEO, spectrum wars and new standards for IoT, plus new business partnerships to drive innovation and business growth. Quote 'APSCC' to enjoy *15% discount off* the registration fees! (\*discount not applicable to Passports)

### SATELLITE BUSINESS

#### **First Major Order for New Fleet One Plan**

April 3, 2018 - Inmarsat has received the first major commitment to its brand new Americas Leisure Plan for Fleet One, devised especially for sailing and motorboat users cruising in waters around North and South America. The order for 150 Fleet One terminals from Network Innovations follows hard on the heels of the 1 March launch of the flexible 'unlimited Fleet One Americas Leisure Plan' for yacht and boat users from Alaskan waters, along both US coasts, through the Caribbean and Mexico, and on to the South Pacific and South Atlantic. Alongside their primary boat systems, leisure users now expect to be able to update complex chart plotting, navigation systems and weather forecasts in real time, with apps accessed through tablets that make leisure cruising safer, as well as more fun.

#### **Viasat Expands Dublin Office**

April 4, 2018 - Viasat Inc. opened its new expanded office in Dublin, Ireland, which is expected to house up to 250 Viasat team members focused on developing next-generation software and technology for Viasat's target broadband markets. The expanded Dublin office represents a signal of growth for Viasat. Today, the Company has nearly 100 team members located in Dublin primarily developing innovative software solutions for the commercial aviation industry. Viasat expects to more than double its headcount in Dublin over the next few years, and extend development beyond connected aircraft software to include broader software and mobile application support for international maritime customers, European residential broadband and Wi-Fi markets, government systems as well as support for Viasat's next-generation ultra-high capacity satellite platform, known as ViaSat-3.

### **Marlink Adds Capacity and Coverage to its Sealink VSAT Network in the Indian Ocean Region**

April 4, 2018 - Marlink has added a new satellite to its global multi-band Sealink network, significantly expanding its footprint in the Indian Ocean Region (IOR) and introducing even more Ku-band VSAT capacity to enable high-speed broadband connectivity for ships transiting southern routes between Asia and Africa, in addition to fishing vessels operating east of Africa's coastline and out towards the Maldives and Seychelles. The new capacity comes from a satellite positioned in geostationary orbit at a longitude of 110° East. Its addition to the Sealink network now gives Marlink four overlapping beams in certain areas of the IOR, ensuring that capacity is always available for its customers to meet their diverse connectivity needs. The extra redundancy provided by the enhanced orbital spread in the IOR ensures continuous service availability, especially in 'blocking' situations where a vessel's infrastructure obstructs line of site between the antenna and a satellite.

### **SKY Perfect JSAT Launches Next-Generation Maritime Broadband Service "OceanBB plus"**

April 5, 2018 - SKY Perfect JSAT Corporation (SJC) announced the launch of SJC's next-generation maritime broadband service "OceanBB plus" in partnership with KVH mini-VSAT broadband. "OceanBB plus" provides faster connectivity and wider service coverage compared to SJC's current "OceanBB" service. "OceanBB plus" has two rate plans; one is the Flat Plan with the speed that meets customers' various requirements, and the other is the High Speed Plan that fits customers' monthly data needs and provides data speeds as fast as 10Mbps (shore-to-ship) and 3Mbps (ship-to-shore). Customers can enjoy both plans at the same time in a single contract, and this new hybrid airtime plans will offer flexible solutions to the unique needs of each vessel. SJC has been contributing a lot to the spread of VSAT service in the Japanese maritime broadband market as an industry leader. "OceanBB" also has been improving the lives of crews by providing vessels with broadband environment. Through those innovative activities, "OceanBB", with total 300+ customers within Japan, has supported the digitalization of Japanese shipping industry. To meet evergrowing demand for maritime connectivity as well as to get ready for the new era of Ship IoT, "OceanBB plus" will continue to deliver accelerated growth to the Japanese maritime customers.

### **Viasat Affirms Commitments to Bring its ViaSat-3 Satellite to Europe**

April 6, 2018 - Viasat has confirmed it will not be moving forward with Eutelsat Communications on a deal for use of the ViaSat-3 satellite, due to Eutelsat's decision to pursue a local market alternative. As there was no binding agreement with Eutelsat for the ViaSat-3 EMEA satellite, Viasat's capital plan is not dependent on Eutelsat's participation to proceed with the ViaSat-3 program. Viasat also confirmed that Eutelsat's ViaSat-3 decision has no direct impact on existing contracts. Viasat and Eutelsat closed a broadband joint venture in March 2017 that gave Viasat joint ownership of the KA-SAT satellite. The joint venture also enabled Viasat to create a new consumer retail service in Europe, which is currently in early-stage operations and focuses on bringing enhanced broadband internet service plans to select European countries.

### **U.S. DoD Contracts Full O3b MEO Beam and Services from SES Government Solutions**

April 9, 2018 - SES Government Solutions has been awarded a USD 24.8 million multi-year contract by the U.S. Department of Defense (DoD). Under the new agreement, SES GS will provide the United States Africa Command (U.S. AFRICOM) with high throughput, low-latency managed satellite communications services in the areas of their operations. SES GS will be delivering a highly complex customized end-to-end solution, which will provide dedicated, flexible and secure connectivity to end users and those who support them. The managed services include low-latency high throughput capacity, gateway services, monitoring and control, satellite terminals, field service support, as well as terrestrial backhaul. The high throughput capacity is delivered through an entire 432 MHz fully steerable Medium Earth Orbit (MEO) beam, allowing U.S. AFRICOM to meet evolving real-time operational needs.

### **Viasat Helps Bridge the Digital Divide in Mexico with 'Community Wi-Fi' Service**

April 9, 2018 - Viasat Inc. announced it will offer a satellite-enabled Wi-Fi hotspot service – known as 'Community Wi-Fi' – to nearly all of Mexico. The new service will bring an affordable Wi-Fi experience directly to consumer's devices, where historically internet service was unavailable or unusable. The service can be deployed with minimal local infrastructure investment, and showcases Viasat's ability to quickly bring cost-effective internet service to emerging markets where large gaps exist between demand, affordability and availability of internet services. Since April 2016, Viasat has been conducting 'Community Wi-Fi' trials at nearly 500 sites throughout Northern Mexico using its existing satellites and Wi-Fi technologies. Today, these successful deployments cover hundreds of thousands of Mexican citizens,

where internet service was unavailable prior. With the increase in ViaSat-2 satellite capacity and coverage, the Company expects it can further bridge the global digital divide – reaching millions of people in unconnected towns across Mexico. For more information on how Viasat is bringing 'Community Wi-Fi' service to rural communities in Mexico, watch this video.

### **Speedcast Expands Capacity on AsiaSat 9**

April 10, 2018 - AsiaSat announced an expansion and renewal agreement with Speedcast to utilize multiple C- and Ku-band transponders on the brand new AsiaSat 9. This upgrade will enhance high quality managed network services for Speedcast's global customers in the Mobility, Maritime, Energy, Enterprise and Government sectors, and for cellular backhaul solutions to emerging markets. With AsiaSat 9 in service at 122° East since year-end 2017, Speedcast has been seeing benefit from the superior power and efficiency of the high performance beams. This new agreement facilitates Speedcast's flexible access to AsiaSat 9's enhanced C-band and Ku-band beams serving East Asia, Indonesia and Myanmar, which allows the company to expand and upgrade the communications networks based on customer requirements. AsiaSat has been a long-term partner of Speedcast in the Asia-Pacific region since 1999. Together, they provide high demand, wide-range, robust and reliable communications solutions for mission critical networks - from voice, video and broadband data, to safety and cybersecurity, as well as cellular backhaul solutions to telcos and critical connectivity solutions for remote regions and in emergency situations.

### **ESA Signs Govsatcom Precursor Pacis-6 Contract with Inmarsat**

April 10, 2018 - Inmarsat has been awarded a contract by the European Space Agency (ESA) as the Prime Contractor for the new "PACIS-6" Govsatcom Precursor project. The Inmarsat-led initiative will develop and demonstrate a pooling and sharing (P&S) platform that will enable European Government users and European Union (EU) agencies to access secure, affordable commercial satellite services that can augment and enhance their existing government-owned satcom capabilities. The project will show government users how to access secure capacity from our unique Global Xpress (GX) constellation; the world's only commercially available global military Ka-band satellite network, and will be of particular importance in supporting crisis response agencies, border security, diplomatic networks, disaster response, critical infrastructure, and peacekeeping missions.

### **Vodacom and Intelsat Sign Agreement to Expand Broadband Connectivity throughout West Africa**

April 10, 2018 - Intelsat S.A. announced that Vodacom Business Nigeria has signed an agreement for satellite services to expand its enterprise broadband networks and enable new and enhanced services throughout West Africa. Under a new multi-year agreement, Vodacom Business Nigeria will utilize the satellite services on Intelsat 35e to deliver fast, high-quality and resilient broadband connectivity to the banking, oil and gas, and enterprise sectors across West Africa. In addition, the improved performance, efficiency and lower total cost of ownership delivered by Intelsat 35e, the fifth of the Intelsat Epic<sup>NG</sup> satellites, will enable Vodacom Business Nigeria to further enhance the services being offered to its existing customers in Nigeria; expand its offerings in the enterprise and Internet of Things sectors; as well as extend broadband connectivity in Nigeria.

### **Kuwait Airways to Offer Inmarsat GX Aviation through SITAONAIR**

April 10, 2018 - Kuwait Airways (KUW) is to become the Middle East's first airline to offer inflight connectivity services over Inmarsat's GX Aviation high-speed broadband service on a single aisle aircraft fleet. Inmarsat partner SITAONAIR is to deploy its award-winning Internet ONAIR portal and Mobile ONAIR services – powered by Link ONAIR over our GX Aviation network – line-fit aboard the airline's new A320 and A321 Neo aircraft fleet. Service activation on commercial flights throughout the Middle East, India, Europe and Africa is planned for early 2019. SITAONAIR's Internet ONAIR inflight connectivity portal enables passengers to seamlessly maintain their digital lives as they fly – to stream, surf, message, consume digital content, shop and stay connected with loved ones. With Mobile ONAIR, passengers can enjoy an 'at-home' mobile connectivity experience.

### **Panasonic Avionics Announces NEXT Loyalty Launch with Customer Singapore Airlines**

April 10, 2018 - Panasonic Avionics Corporation (Panasonic) announced the debut of their new airline onboard loyalty platform, called NEXT Loyalty, with Singapore Airlines as launch customer. NEXT Loyalty is Panasonic's new suite of solutions for enabling personalized inflight experiences for passengers, and allowing airlines to extend their loyalty programs into their onboard services. NEXT Loyalty allows passengers to login using a variety of credentials chosen by the airline, or to pair their mobile device at the

seat via the airline app. Once signed in, passengers will be recognized and provided with a variety of familiar personalized features including: resuming unfinished movies from previous flights, receiving recommendations based on viewing history, unlocking exclusive content and offers based on loyalty program status, viewing a customized look-and-feel of their interactive associated with their profile, saving settings for language/subtitle preferences, preferred genres and accessibility, and more. Airlines will further benefit from the opportunity to understand usage patterns and activities inflight, and utilize those data analytics to better tailor future inflight services.

### **Thuraya Unveils the World's First Satellite Smartphone**

April 11, 2018 - Thuraya unveiled the world's first satellite smartphone during its partner conference in Dubai. The Thuraya X5-Touch runs on the Android Operating System and has a 5.2" full HD touchscreen. It targets users who frequently move in and out of terrestrial coverage across a range of market sectors including government missions, energy projects, enterprise communications, and NGO deployments. The phone offers fast and simple connectivity on the move, in remote areas normally beyond the reach of smartphones. The Thuraya X5-Touch is a step closer towards complete convergence between terrestrial and satellite communications through its full dual-mode and dual-SIM capability. It has two SIM-card slots for full user flexibility, and with the dual-active mode it has the ability to have both its satellite and GSM (2G, 3G, or 4G) modes 'always on' simultaneously. The Thuraya X5-Touch is equipped with GPS, Glonass, and BeiDou systems for advanced navigation and tracking functions, which are important safety features during critical situations and it comes with Wi-Fi, Bluetooth, and NFC.

### **Inmarsat GX Aviation to Power Inflight Broadband for Citilink Indonesia**

April 11, 2018 - Inmarsat has signed a MoU with Mahata Aero Teknologi (MAT), Lufthansa Systems and Lufthansa Technik, to provide a world-class inflight broadband service to passengers onboard Low Cost Carrier (LCC) Citilink Indonesia's fleet of Airbus A320 family aircraft. This collaboration of four leading technology companies will enable Citilink to provide a unique onboard experience and build passenger loyalty through a market-leading Bring Your Own Device (BYOD) connectivity offering, powered by Inmarsat's high-speed, award-winning GX Aviation inflight broadband service.

### **Elbit Systems Completes the Acquisition of Universal Avionics Systems Corporation**

April 11, 2018 - Elbit Systems completed the acquisition of the assets and operations of the privately-owned U.S. company Universal Avionics Systems Corporation ("Universal Avionics") for a purchase price of approximately \$120 million. Headquartered in Tucson Arizona, and operating in several facilities across the U.S., Universal Avionics is a developer and manufacturer of commercial avionics systems for the retrofit and forward-fit market, for a wide range of fixed and rotary aircraft types. Universal Avionics' solutions include Flight Management Systems (FMS), displays, communication systems, complete cockpit solutions and additional advanced commercial avionics systems, which are complementary to Elbit Systems' internationally successful commercial avionics systems, Enhanced Flight Vision Systems (EFVS) and Head-Up Display (HUD) product line. This acquisition will enable the Company to offer a broad portfolio of advanced end-to-end cockpit solutions for commercial OEMs and After Market customers.

### **Nomad and Kymeta Join Forces to bring COTM to Mobile Connectivity for Defense**

April 11, 2018 - Kymeta and Nomad Global Communication Systems (GCS) announced their partnership to deliver end-to-end, seamless, mobile connectivity for defense, public safety, first response, utility and private sector customers. Nomad will continue to lead innovation in the connected mobile operations center market by offering Kymeta KyWay terminals, KyWay Go mobile units and KALO internet access services to global customers.

### **Inmarsat Signs Agreement with Turkish Technic and HAVELSAN for IFC Collaboration**

April 12, 2018 - Inmarsat has signed a Memorandum of Understanding with Turkish Technic and HAVELSAN on integrated inflight connectivity and entertainment solutions. As part of the collaboration, the three companies will offer a joint solution for emerging markets, which integrates Inmarsat's award-winning GX Aviation inflight broadband solution with the Turkish Technic-HAVELSAN inflight entertainment system.

### **Comtech Awarded \$4.2 Million Follow-on Contract for High-Power Satcom TWTAs**

April 13, 2018 - Comtech Telecommunications Corp. announced that during its third quarter of fiscal 2018, its Santa Clara, California-based subsidiary, Comtech Xicom Technology, Inc., which is part of Comtech's

Commercial Solutions segment, has received a follow-on contract for more than \$4.2 million from a U.S. military integrator for high-power satellite communication (SATCOM) traveling wave tube amplifiers (TWTAs). This is the third installment of a multi-year program for these power amplifiers used in tactical transportable SATCOM terminals.

### **Intellian Opens in China to Build Largest Asia Network in Market**

April 16, 2018 - Intellian has established a Chinese corporation subsidiary in Shanghai and officially started operations there to better meet local customer demand. Intellian provides products and technical support to partner companies on every continent of the world through its 10 subsidiaries based in the U.S., U.K., Netherlands, Singapore and other regions. And now it has launched an additional full-scale operating subsidiary in Shanghai, one of the largest shipbuilding markets in the world, in order to keep pace with its growing customer base there. Shanghai is one of the three major ship-related industrial bases in China and where three of the top 10 shipyards in China – Shanghai WaiGaoQiao, HuDong and JiangNan – are located. It is also a region where the headquarters of a large number of ship management companies, including Cosco, are concentrated, and it boasts the largest container and cargo volume in the world.

### **Comtech EF Data Selected by Orange Business Services for Multiple NGO Relief Projects in Africa**

April 16, 2018 - Comtech EF Data announced that Orange Business Services selected the Heights Networking Platform to support relief projects for a large Non-Governmental Organization (NGO) in two African countries. The Heights hub was implemented at the Orange teleport in France. The first Heights Remote Gateways will be deployed in Africa to provide mission-critical connectivity, enabling essential peace-keeping mission operations. The installation of the Heights hub in France offers Orange Business Services the ability to quickly deploy and commission new remotes in additional countries on the African continent as new peace-keeping requirements arise. The Heights Networking Platform was designed with the carrier grade service provider and its multi-user environments in mind.

### **STECCOM to Provide Premium Inflight Connectivity over Europe and CIS Region with SES Networks**

April 16, 2018 - SES announced that Sputnik Telecommunications Entertainment Company (STECCOM), Russia's major satellite communications operator and leading developer of VSAT-based communication systems, will elevate the passenger and crew inflight connectivity (IFC) experience across the Commonwealth of Independent States (CIS) region and Europe by utilizing SES satellite capacity and associated services via SES Networks. Under the agreement, STECCOM will leverage a high-capacity, global managed services platform built on an open architecture. Additionally, STECCOM's customers will benefit from high-speed, high-throughput connectivity. Also, SES Networks and STECCOM will use each other's ground facilities, opening up opportunities for enhanced connectivity across Europe, Russia and Central Asia. This ground infrastructure is key in ensuring efficient delivery of bandwidth to meet the rising demand for high-quality IFC services in this dynamic market.

### **Media Broadcast Satellite Extends its High Performance Services on Intelsat Epic<sup>NG</sup>**

April 17, 2018 - Media Broadcast Satellite has extended its services on Intelsat's Epic satellite network that will enable the company to deliver high-performance connectivity for today's most demanding applications. Media Broadcast Satellite is now operating services over the IS-33 Epic satellite at 60° East using a 9m antenna in Ku-band; the IS-35 Epic satellite at 34.5° West using a 5.6m antenna in Ku-band; and the IS-37 Epic satellite at 18° West using a 19m antenna in C-band from its cutting-edge teleport. Additional Epic satellites to be added to the teleport such as IS-29e are currently being evaluated by the technical team in Usingen.

### **iDirect Government Debuts New 4.2 Evolution Software**

April 17, 2018 - iDirect Government unveiled their most powerful Major Defense-Based software release, Evolution 4.2. Evolution 4.2 unleashes the full capabilities of the 9-Series satellite routers, defense line cards and tactical hub. Evolution 4.2 also continues to support existing 8-Series satellite routers and eMxDx line cards. Evolution 4.2 delivers ultra-enhanced features in performance, efficiency and security in support of the company's defense and government customers. When used with the 9-Series, Evolution 4.2 boosts single carrier capacity to 29 mega-symbols per second (Msps) (previously 7.5 Msps in Evolution 2.3) as well as ten times improvement - with achievements up to 64,000 packet-per-second (PPS) of simultaneous traffic. These dramatically increased speeds and throughput are ideal for intelligence, surveillance and reconnaissance (ISR) content, larger volumes of simultaneous voice calls as well as other bandwidth-intensive applications for land, air or sea.

### **Telecom Consulting Group Becomes Master Agent Partner of Viasat Business Internet Services**

April 17, 2018 - Viasat announced it has signed Telecom Consulting Group (TCG) as its most recent Master Agent partner. TCG's sub-agents will have full access to Viasat's expanding suite of high-speed business internet services. TCG is a National Master Agency with more than 3,000 sub-agents selling telecommunications services to business customers across the U.S. As a Viasat Master Agent, TCG's sub-agents will be able to expand their coverage area and offer customers reliable and high-speed broadband options they couldn't get before. They will also now be able to offer their business customers a more diverse, resilient secondary connection for business continuity and SD-WAN implementations.

### **Inmarsat Introduces SB-S into Commercial Service**

April 17, 2018 - Inmarsat has entered commercial service with SwiftBroadband-Safety (SB-S). The next-generation satellite IP platform is designed to meet the needs of aviation data communications in the digital age and offers airlines game-changing visibility into their airline operations. It is the first and only global, secure, broadband platform for operations and safety communications. SB-S unlocks a world of digital intelligence for airlines, transforming the role of satcom from a safety utility to a key source of strategic value. The platform enables a range of value-added applications, allowing airlines to utilise rich, real-time data to drive decision-making, improve operational efficiency and assure the highest levels of safety in the skies. The commercial service introduction follows a successful in-flight evaluation on Hawaiian Airlines' Boeing 767-300 aircraft and installations on the airline's entire Airbus A321neo fleet. SB-S is also in flight evaluations with United Airlines and Shenzhen Airlines, and has been selected by Airbus as a Light Cockpit Satcom (LCS) solution on its A320 and A330 families.

### **Airbus Pushes Mission-Critical Standard Solutions for 5G Networks**

April 17, 2018 - Airbus will intensively contribute to the next steps in finding a global standard for mission-critical multimedia group communication. After the 3rd Generation Partnership Project's (3GPP) completion of release 14 of secure multimedia group communication in December 2017, Airbus and its partners within 3GPP are now working on release 15 and 16 by the end of 2019. 3GPP is a global initiative that unites various standard development organizations and sets international telecommunications standards as well as system specifications. One of the prime intentions is to improve real-time video group communication (MCVideo) and develop a thorough 5G solution.

### **Eutelsat Completes the Sale of its Stake in Hispasat for 302 Million Euros**

April 18, 2018 - Eutelsat Communications announced that its 33.69% stake in the Spanish satellite operator, Hispasat, has been sold for a consideration of 302 million euros. The transaction concludes an agreement reached in May 2017 between Eutelsat and Abertis which was recently approved by the Spanish Council of Ministers, thereby lifting the last condition precedent to its completion. The divestment of Eutelsat's stake in Hispasat is in line with the Group's strategy of rationalizing its portfolio of assets in order to maximise cash generation.

### **Speedcast International Ltd New Debt Refinancing to Improve Operational Flexibility**

April 19, 2018 - Speedcast International Limited announced its intention to pursue the refinancing of its existing Bank Loans. Speedcast International Limited intends, together with some wholly-owned subsidiaries, including Speedcast Communications Inc. and Speedcast Limited, to offer, subject to market and other conditions, to refinance its existing Bank Loans with a new 7-year US\$425 million Senior Secured Credit Facility in the US institutional Term Loan B market. In addition, it intends to arrange a new 5-year US\$100m Senior Secured Revolving Credit Facility (together "the Facilities"). The existing Bank Loans include a 3-year US\$425 million Senior Secured Bank Loan and a US\$20 million Senior Secured Revolving Credit Facility. The proposed Facilities will diversify Speedcast's funding sources, extend its debt maturity profile and improve the Company's operational flexibility for the future.

### **NanoRacks, ALTEC, Thales Alenia Space Announce Business development Partnership**

April 18, 2018 - NanoRacks will be pursuing International Space Station opportunities in cooperation with ALTEC and Thales Alenia Space, joint venture between Thales 67% and Leonardo 33%. To pursue these opportunities, NanoRacks will be staffing its first formal European-based office at ALTEC's facilities in Torino, Italy. The office will serve as a business development hub for European and Asian customers. International customers will enjoy NanoRacks end-to-end turnkey services and technical advice, now in a more accommodating time zone. The companies will build together a directory of end-to-end solutions to lower the barriers for European and Asian customers to access low-Earth orbit. This directory will include

a combination of hardware, software, and on-the-ground services. Bishop, NanoRacks commercial airlock module, will also be considered a part of Altec and Thales Alenia Space's space product portfolio.

#### **NEC Uses 5G to Contribute to Remote Medical Examination Trials**

April 19, 2018 - NEC Corporation announced its contributions to field trials in remote medical examinations using 5G. NEC provided a base station system as part of comprehensive 5G demonstration experiments carried out by NTT DOCOMO, INC., the Wakayama Prefectural Government, and Wakayama Medical University and hosted by the Ministry of Internal Affairs and Communications. In this experiment, large-capacity 5G transmission enabled real time communication and sharing of images taken by a 4K close-up camera, high-definition echocardiographic (echo) video and MRI images using a 4K video conference system between Wakayama Medical University and Kokuho Kawakami Clinic.

#### **Comtech Awarded Contracts from the Armed Forces of the Philippines**

April 20, 2018 - Comtech Telecommunications Corp. announced that during its third quarter of fiscal 2018, its subsidiary, Comtech Systems, Inc, which is part of Comtech's Government Solutions segment, received orders of approximately \$6.5 million to provide tactical troposcatter equipment and to design and install ISR Video Downlink Systems for the Armed Forces of the Philippines (AFP). The Modular Transportable Transmission System (MTTS) troposcatter terminals will enable the Armed Forces to establish data links between island locations that were previously beyond the reach of high bandwidth terrestrial communications. These systems are an integral part of the AFP C4I Modernization plan, and will be utilized to transport various types of data from remote locations to command centers for real time decision making. The Video Downlink systems will allow the AFP airborne assets to deliver ISR data for distribution to ground-based decision makers in real time, and are designed to support future upgrades of AFP ISR capabilities.

#### **Oldendorff Carriers Selects Inmarsat Fleet Xpress through Partner Navarino**

April 20, 2018 - Oldendorff Carriers, one of the world's largest dry bulk shipping companies, has chosen Fleet Xpress, Inmarsat's high-speed broadband service, through partner Navarino. Throughout 2018, all Oldendorff Carriers' owned vessels will be fitted with Fleet Xpress, Navarino's Infinity Cube Cloud-based solution, which will host the Fleet Xpress soft Network Service Device (NSD), and Cobham GX 100 antennas. Fleet Xpress seamlessly combines the power of our Ka-band Global Xpress network with the proven reliability of L-band FleetBroadband for continuous back-up. This ensures seamless global mobility, guaranteed performance and controlled costs for ship owners, enriched by the Inmarsat Gateway for application-triggered bandwidth, a managed-cyber security solution and flexible third-party subscriptions.

#### **Marlink Joins Forces with LTTS to Extend IoT Connectivity in Remote Environments**

April 24, 2018 - Marlink, a global satellite services and solutions provider, announced a partnership agreement with leading pure-play engineering services company L&T Technology Services (LTTS) to deliver new Internet of Things (IoT) solutions that leverage the power of satellite networks for extended connectivity in the most remote locations on the planet. The new partnership forms the framework for the pair to augment LTTS' portfolio of End-to-End services for major technology players in diverse verticals including Automotive, Aerospace, Process industries, Industrial Automation, Telecom and Medical. Already connected using cellular and terrestrial networks, LTTS' smart products and services will be reinforced by Marlink's satellite network and technology expertise through extended reach of IP connectivity for end-users worldwide.

#### **Inmarsat Signs CTTIC and ADCC as China Distribution Partners**

April 24, 2018 - Inmarsat has signed a contract with China Transport Telecommunication Information Group Company Limited (CTTIC) to build a local SwiftBroadband-Safety (SB-S) satellite communication operation platform in China. In addition, Inmarsat, CTTIC and Aviation Data Communication Corporation (ADCC) will jointly provide the advanced SB-S aviation safety service to the fast-growing Chinese aviation industry. Under the partnership, Chinese airlines will now have access to a comprehensive package that integrates our Classic Aero and next-generation IP-based SB-S services. This will enable them, for the first time, to process all their data in China and fulfil the Civil Aviation Authority of China (CAAC)'s Airline Operations Centre (AOC) voice mandate and flight tracking requirements.

#### **Globalstar to Merge with FiberLight and Acquire Other Assets in Stock Transaction**

April 25, 2018 - Globalstar, Inc. has signed a merger agreement with Thermo Acquisitions, Inc. pursuant to

which the following assets will be combined with Globalstar: metro fiber provider FiberLight, LLC (FiberLight), 15.5 million shares of common stock of CenturyLink, Inc. (CenturyLink), \$100 million of cash and minority investments in complementary businesses and assets of \$25 million in exchange for Globalstar common stock valued at approximately \$1.65 billion, subject to adjustments. Thermo Acquisition, Inc. is controlled by Jay Monroe, Executive Chairman of the Board of Directors and Chief Executive Officer of Globalstar. At closing the parent company will be renamed Thermo Companies, Inc., and its stock will continue to trade publicly. The transaction has been unanimously recommended by the Special Committee of the Board of Directors of Globalstar, consisting entirely of independent directors, and unanimously approved by the full Board of Directors. The merger is expected to close in the third quarter of 2018.

### **Audacy Expands Singapore Operations**

April 25, 2018 - Audacy, a space communications provider, expanded its presence in Singapore with two new hires; team goals include creation of a space mission operations center, hardware & software development, and business development for the Asia Pacific region. Having opened an office in 2017 with initially just two employees, Audacy added two more employees in technical leadership roles this month and expects to add up to 20 more by the end of the year. The help of local government has been a highly appreciated enabler in advancing Audacy's plans from vision into reality. Audacy's space communications relay satellite system is scheduled to start commercial services in 2020, with initially two ground facilities in the San Francisco Bay Area and in Singapore.

### **Yahsat Signs an Agreement to Purchase a Majority Stake in Thuraya**

April 26, 2018 - Yahsat has entered into an agreement to acquire a majority stake in the mobile satellite services operator Thuraya, also based in the UAE, subject to final pre-closing conditions being met. The acquisition of the UAE's first home grown satellite operator, Thuraya, will significantly expand Yahsat's current satellite solutions portfolio for both commercial and government verticals, as well as its global footprint. The acquisition will set Yahsat on a new phase of growth, with Thuraya bringing 20 years of innovation and experience in the mobile satellite services market along with a rich portfolio of products and services complimented by a renowned brand. Thuraya's two satellites, serving over 140 countries, will join the Yahsat fleet, expanding the group's satellite fleet to five. The combination of geostationary satellites operating in the C, Ka, Ku and L-bands will jointly cover Europe, Africa, the Middle East, South America, and Asia, providing a broad range of Fixed and Mobile Satellite Services spanning voice and data communications to both commercial and government sectors. The transaction is expected to close after customary conditions have been met and regulatory approvals have been obtained. The tender process will start shortly to offer current shareholders the option to participate in this sale.

### **Qatar Airways Commences Rollout of Inmarsat GX Aviation**

April 30, 2018 - Inmarsat's GX Aviation inflight broadband service is currently being rolled out on more than 130 of Qatar Airways' Boeing 777 and Airbus A350 aircraft. Qatar Airways is the first airline in the Middle East and North Africa (MENA) region to offer GX Aviation, the world's first inflight broadband solution with reliable, seamless high-speed global coverage provided through a single operator. The rollout follows a highly successful inflight test campaign across the airlines' global flight routes. As part of the service offering, passengers will now be offered one-hour of free access to GX Aviation, after which full-flight access can be affordably purchased.

## **BROADCASTING**

### **SES Reaches 351 Million TV Homes Worldwide**

April 4, 2018 - The number of video households served by SES has continued to increase, reaching 351 million TV homes in 2017 according to SES's annual market research, Satellite Monitor. This substantial technical reach compared with 325 million households in 2016 means that SES is now delivering video content to more than 1 billion global viewers. SES's increased technical reach reflects the expansion of the survey with the addition of new countries (Ethiopia, Tanzania, Uganda and Turkey) and the wider reach of Yahlive, namely in the Maghreb countries, together accounting for 17 million more SES TV homes. On a like-for-like basis, the technical reach grew by 9 million SES TV homes, mainly in Nigeria, Ghana and the Middle East. Out of its 351 million TV homes, SES directly reaches 145 million, and indirectly serves

another 147 million cable homes, 40 million IPTV homes, and 18 million terrestrial homes.

### **NovelSat Satellite Technologies Integrated into the Eurovision Global Network**

April 4, 2018 - NovelSat, a world leader in satellite transmission technology, announced that its NovelSat ProtCASTER DRM solution was implemented as a part of a major satellite network upgrade by Eurovision Media Services (EMS). As a part of the upgrade, EMS also replaced their current satellite waveform, NovelSat NS3, with the more robust NovelSat NS4, further boosting spectral efficiency by up to 15%. Co-developed with EMS, NovelSat ProtCASTER DRM is the only satellite broadcast content protection solution based on virtually unbreakable AES 256-bit encryption. In addition, ProtCASTER offers a set of easy-to-use graphical tools to dynamically handle satellite broadcast content Digital Rights Management (DRM), entitlement, scheduling and booking. ProtCASTER is embedded in the Eurovision Hypermux Satellite Content Distribution Platform and has already been proven in the distribution of major sporting events. NovelSat has also reached an agreement with EMS to commercialize the ProtCASTER technology so that it can be licensed to other media distribution players and benefit the broadcasting community at large. NovelSat will also offer ProtCASTER as a new service.

### **New Croatian Public Channel HRT-HTV 5 Selects HOTBIRD for Satellite Broadcasting**

April 5, 2018 - The Croatian national broadcasting Group Hrvatska radiotelevizija (HRT) has signed a multi-year agreement with Eutelsat for capacity on HOTBIRD, the flagship video neighbourhood for Europe and the Middle East, in order to broadcast its latest entertainment and news channel HRT-HTV 5 to an international viewer base. The free-to-air channel HRT-HTV 5 offers 24-hour news, educational and entertainment programmes in Croatian, as well as content in English, Spanish and German. It joins the hub of 1,000 channels available via HOTBIRD to more than 135 million households in Europe, North Africa and the Middle East. By selecting Eutelsat's premium neighbourhood, the Croatian Group HRT will be able to raise the profile of its latest channel HRT-HTV 5 beyond its borders, thereby reaching a widespread global audience.

### **Viewers in the Caribbean Gain Access to New, High-Quality TV Offer with Kiwisat and SES Video**

April 5, 2018 - Satellite TV provider Kiwisat is launching a new DTH offering in the Caribbean to deliver top-quality but accessible TV entertainment to consumers on the islands using SES's satellite SES-10. Under the long-term agreement announced by SES, Kiwisat is leasing capacity on SES-10 to deliver about 130 channels, including 90 HD channels. The DTH platform is mainly aiming at English-speaking islands, with an exclusive package of American TV channels, but also includes three French-speaking channels for French subscribers. As the first platform to rely on the DVB S2X and HEVC standards in the North American pay TV market, Kiwisat offers the largest HD line-up in the Caribbean region. To support the roll-out of Kiwisat's DTH platform, SES Video conducted an ELEVATE training programme in Saint Martin, where Kiwisat is based. This training programme provides antenna installers with the right set of skills to execute high-quality installations of satellite dishes in TV homes, ensuring that subscribers will enjoy top-quality reception. As a starting point, SES trained 10 installers to help Kiwisat deploy its platform.

### **NovelSat and ATEME Collaborate to Roll out a New Integrated Satellite Broadcast Solution**

April 5, 2018 - NovelSat announced that the company has extended its technology cooperation with ATEME, a global leader in video delivery. The new collaboration between the long-time partners includes the integration of NovelSat's state of the art PCIe-based NS10C Satellite Modulator cards and NS20C Satellite Demodulator cards into the ATEME's TITAN software converged headend solution. The new integration was rolled out to offer broadcasters enhanced solution for HD and Ultra HD transmission by including high-efficiency satellite signal modulation within single unit video encoding/decoding, compression and acceleration. TITAN Live from ATEME is a high-quality, HD video software compression solution, designed for Cable, DTH and OTT live delivery of mobile, SD, HD and 4K Ultra HD content. TITAN Live is a True virtualized software-based solution, based on the ATEME 5th Generation STREAM compression engine. It delivers the highest video quality at minimum bitrates with accelerated parallel processing.

### **STN Extends Services on Galaxy 19 to Fuel Expansion in North America**

April 6, 2018 - Intelsat announced that STN, the Satellite Telecommunications Network, signed a multi-year extension with Intelsat for satellite services supporting direct-to-home (DTH) and media distribution services in North America via the Galaxy 19 satellite. As part of the agreement, STN is utilizing the power of the Intelsat's Galaxy 19 video neighborhood. Located at 97° West, Galaxy 19 serves as the premier U.S.

neighborhood for free-to-air multicultural programming, distributing content originating from 60 countries around the world in more than 30 different languages. The satellite offers a Ku-band DTH platform that serves customers in the continental United States as well as Canada, Alaska and Hawaii. Intelsat is also providing an uplink via the IntelsatOne PoP in London and transporting the signal via IntelsatOne fiber to the company's Mountainside Teleport in Maryland. At the Mountainside Teleport, the signal is being uplinked to Galaxy 19 for the DTH application. STN is a leading teleport based in Slovenia. It provides global solutions while also serving individual regional markets in Europe, the Middle East, Asia, Africa and the Americas.

#### **KT Skylife Renews Content Protection Partnership with Nagra**

April 6, 2018 - NAGRA, a Kudelski Group company and a leading independent provider of content protection and multiscreen television solutions, announced that its NexGuard watermarking solution for pay-TV was selected by Korean satellite broadcaster KT Skylife. This partnership allows KT Skylife to meet forensic watermarking requirements mandated by MovieLabs' Enhanced Content Protection for premium content, including 4K Ultra HD and HDR. The expansion also gives KT Skylife's subscribers access to the best content available, while protecting their service from piracy. By expanding its partnership with NAGRA, KT Skylife can now leverage NexGuard watermarking technology to meet studio requirements for the protection of high-value content. The additional ability to expand KT Skylife content offering and increase the value of their services to their subscribers provides a competitive advantage for KT Skylife moving forward.

#### **Intelsat Debuts New MCPC Media Platform for Central and Eastern Europe**

April 9, 2018 - Intelsat S.A. has launched a new, Ku-band Multi-Channel Per Carrier (MCPC) media platform for Central and Eastern Europe. As part of the IntelsatOne terrestrial network, the platform will provide regional and international programmers with a cost-effective solution that will enable them to expand their reach to cable headends, Direct-to-Home (DTH) and Internet Protocol Television (IPTV) distribution. Encompass Digital Media will provide multiplexing services for the platform from its facility in London, and Intelsat will provide further ground and uplink facilities from its Fuchsstadt, Germany teleport. Programmers will be able to contribute standard (SD) or high definition (HD) content from anywhere around the world via Intelsat's global satellite fleet, the IntelsatOne network or through Encompass' network. The platform is set to support MPEG-2 and MPEG-4 compression technology, and Intelsat's high-powered wide beams, optimized for DTH, can be received with 60cm antennas in much of its coverage area.

#### **UNBROSSA Books Capacity on EUTELSAT 117 West B to Launch New DTH Platform for the Caribbean**

April 9, 2018 - UNBROSSA has signed a multiyear, multi-transponder agreement with Eutelsat Americas, a subsidiary of Eutelsat Communications for capacity on the EUTELSAT 117 West B satellite to launch its new low-cost DTH platform for the Caribbean, called "Play". UNBROSSA will leverage EUTELSAT 117 West B's prime coverage of the Caribbean region to launch its innovative Pay-TV DTH platform. With an offer of over 125 channels, including 25 HD channels, "Play" will be the leader in providing next-generation video services to the Caribbean. The platform is scheduled to launch in spring 2018, with a broad range of affordable packages. Satellite connectivity via the Play DTH platform is designed to empower communities in less-developed parts of the Caribbean, opening new doors to knowledge and leading to economic development. Significantly contributing to the reduction of the digital divide, in some of the most isolated parts of the Caribbean, the platform will also be available as a solar-powered solution to reach viewers in regions not covered by the electric grid.

#### **SES Accelerates Latin America's Path to Ultra HD**

April 10, 2018 - SES announced the launch of its Ultra HD platform into the region to accelerate commercial 4K rollouts among leading cable, IPTV, and DTH providers across Latin America. Many of Latin America's leading Pay TV providers are already testing SES's new Ultra HD solution, an all-in-one package of pre-configured Ultra HD content, reception equipment, and satellite distribution that will enable quick and easy Ultra HD deployments over the region. The new SES Latin America Ultra HD solution will open with four Ultra HD channels, including NASA TV UHD, produced by Harmonic, as well as the SES Ultra HD demo channel, an incubator for emerging 4K content producers. SES's NSS-806 satellite, home to SES's leading Latin American Pay TV neighbourhood, will serve the rest of the region until it is replaced by the recently launched SES-14 satellite later this year. Once SES-14 initiates service, SES plans to significantly

expand the Latin America channel lineup on its expanding video neighbourhood at 47.5° West.

### **M7 Group Continues to Rely on SES Video for TV Distribution**

April 11, 2018 - M7 Group will continue to provide its subscribers with top-quality TV reception following an extension agreement with SES for the delivery of its channels via Europe's prime orbital position of 19.2° East. Under the agreement announced by SES, M7 Group will continue to use one full transponder on an ASTRA satellite to deliver its TV package to subscribers in the Benelux and across German-speaking countries for the next three years.

### **Globecomm Launches Broadcast Distribution Platform on EUTELSAT 113 West A**

April 11, 2018 - Globecomm announced a new broadcast platform allowing video content providers throughout the world to access the Globecomm network and provide services throughout the Americas. The new platform offers the ability to aggregate video content and multiplex it for distribution on the EUTELSAT 113 West A satellite, providing high availability with minimal end user investment via sub meter antenna access. The platform features broad coverage throughout the United States, Central and South America, with the key ability to deliver to the Caribbean – specifically the French and Dutch Islands. On this integrated broadcast platform, Globecomm provides a fully managed service via its many global points of presence, robust fiber and satellite network, and multiplexing out of Globecomm's Hauppauge, New York headquarters. The service is ideal for targeting both end users and larger user groups such as resorts and hotels for their own internal distribution. Content providers have the flexibility of determining exactly where they want to hand off their content to Globecomm without the need to customize long haul contribution methods.

### **NASA TV HD and NASA TV UHD Distributed on Eutelsat Satellites**

April 12, 2018 - Eutelsat Communications announced that the NASA High Definition (NTV-3) and NASA Ultra High Definition (NTV-4) channels are broadcasting in free-to-air via satellite for the first time across Europe, the Middle East, North Africa and Sub-Saharan Africa. Viewers from across these regions can now enjoy exceptional images from the U.S. space programme, including coverage of launches, life on-board the International Space Station, Earth views from space, deep space exploration, the solar system, Mars, replay of NASA classics such as the Apollo programme, and documentaries on NASA's latest R&D work. NASA TV HD is transmitted free-to-air from the popular HOTBIRD video neighbourhood at 13° East for viewers in Europe, the Middle East and North Africa, and via the 7° East for viewers in Sub-Saharan Africa. NASA TV UHD is also broadcast on the HOTBIRD and 7° East video neighbourhoods, as well as the FRANSAT TV platform via the EUTELSAT 5 West A satellite, for subscribers equipped with an Ultra HD-compatible TV set. Eutelsat is the first satellite operator to make NASA TV channels accessible to a large and rapidly growing audience base across Europe, the Middle East, North Africa and Sub-Saharan Africa.

### **Intelsat General Again Selected to Deliver Radio and TV Programming to U.S. Troops Worldwide**

April 24, 2018 - Intelsat General announced that it will distribute television and radio programming to U.S. servicemen and women stationed around the world, working with the support of three other satellite and ground service providers. Intelsat General has been carrying the global satellite feed for the American Forces Network (AFN) for more than 15 years, bringing U.S. troops on land and at sea a wide variety of television and radio programming. The new one-year contract with four renewable option years will involve six satellites and five teleports at various locations around the globe, as well as the IntelsatOne terrestrial fiber network. The other partners involved in providing the service are SES Government Solutions, Korea Telecom and Allen Communications.

### **SES Doubles Reach in Ghana to Four Million TV Homes**

April 24, 2018 - SES has expanded its technical reach in Ghana and now serves four million TV homes, compared to two million in 2015, according to the Satellite Monitor study commissioned by SES. The study shows the leading position of SES in the Ghanaian TV landscape, as SES now reaches two-thirds of TV homes in the country, the vast majority being fed directly by its satellite fleet. The increased reach is mainly driven by SES's prime orbital position at 28.2° East, which reaches 97% of all satellite TV homes in Ghana. From that orbital slot, SES hosts WAPS (West Africa Platform Services), a free-to-air TV platform that provides broadcasters with access to the highest reach in West Africa and gives Ghanaian viewers access to 75 TV channels.

### **Yahlive Viewership Surges to over 10 Million Households in North Africa**

April 26, 2018 - Yahlive, the Abu Dhabi-based satellite joint venture between the world-leading satellite operator SES and UAE-based satellite operator Yahsat, announced that more than 10 million households across Algeria, Tunisia and Morocco have their dishes pointed to Yahlive at 52.5° East, according to SES's annual market research, Satellite Monitor. The survey concluded that Yahlive now serves 64% of households in Algeria, 51% of households in Tunisia, and 58% of households in Morocco. Yahlive is an affiliate of SES that serves 13 million satellite TV homes in the Middle East and North Africa. Globally, SES reaches 351 million TV homes and serves more than 1 billion viewers worldwide. SES reaches 32 million homes in Asia-Pacific, 30 million homes in Africa, 75 million homes in North America, 167 million homes in Europe, and 33 million homes in Latin America.

## **LAUNCH / SPACE**

### **Alcomsat-1 Satellite Delivered to Algeria**

April 1, 2018 - The in-orbit delivery ceremony of Alcomsat-1 was held on April 1 at the headquarters of Algeria Space Agency (ASAL); the In-Orbit Delivery & Final Acceptance Certificate was signed. Alcomsat-1 was launched on Dec. 11, 2017 by LM-3B from Xichang Satellite Center. After several maneuvers, it reached the orbital location of 24.8° West. Following the IOAR which was accomplished after the in-orbit test, ASAL confirmed that the in-orbit delivery occurred on March 1. The Alcomsat-1 is the ninth telecommunication satellite delivered to the international client by China Aerospace; it is also the first cooperation with Algeria in aerospace industry. The Alcomsat-1 satellite program is the first communications satellite program of Algeria. It covers the Algerian territory and the surrounding area, will be mainly used in the fields of broadcast, emergency communications, remote education, e-government, enterprise communications, satellite broadband, and satellite based augmentation system application, etc.

### **SSL Selected by NASA JPL as Provider of Critical Capabilities for Europa Flyby Mission**

April 3, 2018 - SSL was selected by NASA's Jet Propulsion Laboratory to design and build critical equipment for a spacecraft that will explore Europa, one of Jupiter's moons. The Europa Clipper spacecraft, set to launch in the 2020's, will perform repeated investigative flybys of Europa, an icy moon of Jupiter, which strong evidence suggests has an ocean of liquid water beneath its crust, potentially harboring conditions suitable for life. SSL will provide the Remote Engineering Unit, a critical interface between the spacecraft's various attitude control systems, thermal sensors and the flight computer. Due to the highly radiative environment the spacecraft will be subjected to, the SSL design for the interface will include innovative radiation-tolerant components expected to help power future exploration missions.

### **NanoRacks Brings Groundbreaking Satellite, Biological Research to ISS on SpaceX CRS-14**

April 4, 2018 - NanoRacks, the leading provider for commercial access to low-Earth orbit, has brought yet another unique payload mission to the International Space Station. Carrying a professional protein crystal experiment, college-level biological research, and a debris capturing microsatellite (MicroSat), this mission continues to push the boundaries of commercial opportunities on the International Space Station. The SpaceX CRS-14 Dragon was successfully installed on the Harmony Module of the International Space Station. NanoRacks third flagship MicroSat mission is the RemoveDebris satellite from The University of Surrey/Surrey Space Centre. The RemoveDebris satellite is planned to be deployed from the NanoRacks Kaber Deployer (Kaber). NanoRacks created the Kaber system to accommodate the increasing customer demand for commercial opportunities to deploy MicroSats from the Space Station. Kaber offers deployments for satellites up to 100 kilograms.

### **Eutelsat Orders KONNECT VHTS, a New-Generation Satellite from Thales**

April 5, 2018 - Eutelsat Communications announced the order of a next-generation VHTS satellite system named KONNECT VHTS, to support the development of its European fixed broadband and in-flight connectivity businesses. The satellite, which is due to enter into service in 2021, will be built by Thales Alenia Space which will develop a satellite and ground segment solution that is the most competitive on the market today. With a weight of 6.3 ton and a Ka-band capacity of 500 Gbps, KONNECT VHTS will embark the most powerful on-board digital processor ever put in orbit, offering capacity allocation flexibility, optimal spectrum use, and progressive ground network deployment. The project will be launched with firm multi-year distribution commitments from Orange and Thales, two key European

players and leaders in their businesses. A retail partnership was signed with Orange to address the fixed broadband market in European countries where the Group has a retail presence, and a distribution partnership was inked with Thales to serve the government connectivity services market.

#### **Ariane 5 Orbits DSN-1/Superbird-8 for SKY Perfect JSAT and HYLAS 4 for Avanti Communications**

April 5, 2018 - Arianespace has successfully launched two telecommunications satellites: DSN-1/Superbird-8 for SKY Perfect JSAT; and HYLAS 4 for Avanti Communications. Arianespace's third launch of the year took place on April 5, 2018 from the Guiana Space Center (CSG), Europe's Spaceport in French Guiana. Superbird-8 will provide telecom services, primarily for the Japanese market, and will replace Superbird-B2, launched by Arianespace in 2000. DSN-1 is an X-Band Defense Communications Satellite, in association with the Program to Upgrade and Operate X-Band Satellite Communications Function, for which the DSN Corporation, a subsidiary of SKY Perfect JSAT, has concluded a program contract with Japan's Ministry of Defense. HYLAS 4 will provide secure and reliable satellite communications services to Internet Service Providers (ISP), Mobile Network Operators (MNO's), governments and satellite operators throughout Europe. This High Throughput satellite will also cover regions in central and western Africa, while its steerable spotbeams will enable it to cover Europe, the Caribbean, the Middle East and South America.

#### **Australian Defence Launches \$1.1 Million Sensor Project for Small Satellites, Drones**

April 5, 2018 - The Defence Materials Technology Centre (DMTC) of Australia has kicked off a \$1.1 million project that aims to develop sensor and on-board data processing technology for unmanned aerial systems and small-satellite platforms. The project also involves new DMTC partner Seaskip and UNSW Sydney's Australian Centre for Space Engineering Research. The initial focus will be to use the sensor technology to improve Navy safety and performance through the better use of unmanned aerial platforms. The project is the first of four to be progressed under DMTC's High Altitude Sensor Systems program, launched by the Minister for Defence Industry Christopher Pyne last September. He said the project would also advance passive radar technologies related to the processing of both line-of-sight and reflected GPS signals.

#### **China Sends Twin BeiDou-3 Navigation Satellites into Space**

April 11, 2018 - China sent twin satellites into space with a single carrier rocket, adding two more members for its domestic BeiDou Navigation Satellite System (BDS). The Long March-3B carrier rocket lifted off from Xichang Satellite Launch Center in southwest China's Sichuan Province on April 6. The launch was the 269th mission for the Long March rocket family. The twin satellites are coded as the 30th and 31st satellites in the BDS. The satellites entered orbit more than three hours after the launch and will work together with six previously launched BeiDou-3 satellites once they pass a series of tests. By around 2020, when the BDS goes global, it will have more than 30 satellites.

#### **China Launches High Resolution Earth Observation Satellites**

April 11, 2018 - China on Saturday launched three Gaofen-1 imaging satellites as part of the country's high-definition earth observation project. The satellites were launched off on the back of a Long March 4C rocket on April 7 from the Taiyuan Satellite Launch Center in northern Shanxi Province. It was the 270th flight mission by a Long March carrier rocket. As high resolution imaging satellites that are accurate to two meters in distance, they will be used for fields including disaster warning, ecological protection, infrastructure construction, transportation and emergency response. They will work together with another previously launched Gaofen-1 satellite.

#### **PSLV-C41 Successfully Launches IRNSS-1I Navigation Satellite**

April 12, 2018 - Indian Space Research Organisation (ISRO)'s Polar Satellite Launch Vehicle PSLV-C41 successfully launched the 1425 kg IRNSS-1I Navigation Satellite from Satish Dhawan Space Centre SHAR, Sriharikota, India. In the coming days, orbit maneuvers will be performed from MCF to position the satellite at 55 deg East longitude in the planned Geosynchronous Orbit with an inclination of 29° to the equator. IRNSS-1I is the latest member of the 'Navigation with Indian Constellation (NavIC)' system. NavIC, also known as Indian Regional Navigation Satellite System (IRNSS), is an independent regional navigation satellite system designed to provide position information in the Indian region and 1500 km around the Indian mainland. A number of ground facilities responsible for IRNSS satellite ranging and monitoring, generation and transmission of navigation parameters, satellite control, network timing, etc., have been established in many locations across the country as part of NavIC.

### **Kratos Introduces New Spectral Services to Enhance Space Situational Awareness**

April 12, 2018 - Kratos Defense & Security Solutions announced that its Spectral Services group has begun offering services designed to help government agencies improve their Space Situational Awareness (SSA) by providing additional information about the behavior of satellites in orbit. Kratos has offered Radio Frequency (RF) monitoring services to government and commercial customers for years, focused mostly on helping those customers resolve interference issues among the satellites they operate. Collected through Kratos' unique network of sensors and ground facilities located around the world, the same RF data can also help operators understand more about the health, location, attribution, performance and other behavioural factors about satellites, which communicate using RF signals. Kratos does not monitor the content of those signals, only the characteristics of the transmitting waveforms to determine metrics such as directional movement and proximity to other satellites for purposes such as avoiding collisions.

### **ULA Successfully Launches AFSPC-11 Mission for the U.S. Air Force**

April 15, 2018 - A United Launch Alliance (ULA) announced that Atlas V rocket carrying the Air Force Space Command (AFSPC)-11 mission lifted off from Space Launch Complex-41. AFSPC-11 is a multi-payload mission. The forward payload is referred to as CBAS (Continuous Broadcast Augmenting SATCOM) and the aft spacecraft is EAGLE (EELV Secondary Payload Adapter (ESPA) Augmented Geosynchronous Experiment). This mission was launched aboard an Atlas V Evolved Expendable Launch Vehicle (EELV) 551 configuration vehicle, which includes a 5-meter large Payload Fairing (PLF). The Atlas booster for this mission was powered by the RD AMROSS RD-180 engine. Aerojet Rocketdyne provided the five AJ-60A solid rocket boosters (SRBs) and RL10C-1 engine for the Centaur upper stage.

### **China Launches Yaogan-31 Remote Sensing Satellites**

April 15, 2018 - The first group of China's Yaogan-31 remote sensing satellites were sent into space on April 10 from Jiuquan Satellite Launch Center in northwestern China. The satellites were carried by a Long March-4C rocket, the 271st mission for the Long March rocket family. The mission also sent a micro nano technology experiment satellite into orbit. The satellites will be used for electromagnetic environment surveys and other related technology tests.

### **Kleos Space Sets up Australian Subsidiary in Canberra European Space Startup**

April 16, 2018 - Kleos Space has opened its first overseas sales and business development office in Canberra. The Australian subsidiary will be tasked with developing the broader Asia Pacific market. Luxembourg-based Kleos has previously announced plans to list on the ASX later this year. It intends to launch and operate its first earth observation satellite system in early 2019. Earlier this month, it signed a \$3.5 million contract with GomSpace to deliver the first of a planned 20 satellite constellation. The company sees Australia as a potentially strong market for its services, particularly among government agencies. It has also noted federal government funding of \$500 million for space-based intelligence, surveillance and reconnaissance capability. Former ADF member Erik Tyler has been appointed MD to lead the regional subsidiary. Kleos was spun off from UK-based parent company Magna Parva and has had backing from the Luxembourg government, the UK Ministry of Defence, the European Space.

### **Intelsat General Part of Team Selected to Build New Satellite Navigation Payload for the US FAA**

April 16, 2018 - Intelsat General announced that it is part of a team of companies awarded a new task order by the Federal Aviation Administration (FAA) to develop and operate a satellite payload to aid aircraft navigation, particularly precision approaches to airports without dependence on ground-based infrastructure. The payload will be part of the FAA's Wide Area Augmentation System (WAAS) that corrects and enhances information provided by Global Positioning System (GPS) satellites to give commercial and civilian pilots more precise approach and departure guidance. WAAS provides safety improvements in the National Air Space and has been operational since 2003. This hosted payload, known as Geostationary Earth Satellite (GEO) 7, is the seventh payload delivering a continuous and robust signal in space across the contiguous United States and Alaska. This payload is part of an ongoing WAAS constellation replenishment/sustainment effort by the FAA. Leidos, a global science and technology leader, is the lead company on the task order which has a four-year development phase followed by a 10-year operations and maintenance phase. Intelsat General is hosting a similar WAAS payload (GEO 3) on Intelsat's Galaxy 15 satellite.

### **Long March-5 Y3 Rocket Returns to Work**

April 16, 2018 - China plans to launch its heavy-lift carrier rocket, the Long March-5 Y3, in late 2018, after

finding the cause of the failure of the Long March-5 Y2, according to the State Administration of Science, Technology and Industry for National Defense. The Long March-5 Y2 rocket was launched from Wenchang Space Launch Center in the southern province of Hainan on July 2, 2017, but a malfunction happened less than six minutes after liftoff. Analysis based on computer simulations and ground tests showed that a problem occurred in a turbine exhaust device in the engine of the first stage of the rocket, the administration said. The engine has been improved and has passed many ground tests. The research team is producing the Long March-5 Y3 rocket, according to the administration. If the Long March-5 Y3 rocket is successful, the Long March-5 Y4 rocket will be used to launch the Chang'e-5 lunar probe, which is expected to bring lunar samples back to Earth.

#### **Rocket Lab and York Space Systems Team up to Develop Rapid Response Launch Capability**

April 16, 2018 - US orbital launch provider Rocket Lab and spacecraft platform developer York Space Systems have entered into an MOU to develop a universal Interface Control Document (ICD) and supporting Concepts of Operations (CONOPS) that will streamline the manifesting process for small satellite launch customers. By removing the time spent in not only selecting a bus and follow on launch provider, but also developing the standard products that are required to get a spacecraft program off the pad, Rocket Lab and York are setting up a framework to shorten the integration process required for York spacecraft on the Electron Launch Vehicle.

#### **China to Launch New Weather Satellite**

April 16, 2018 - China will launch a new meteorological satellite in the first half this year to further boost its weather forecasting capabilities, according to China Aerospace Science and Technology Corporation. The Fengyun-II 09 satellite, the last in the Fengyun-II series, will be able to collect meteorological, maritime, and hydrological data to help weather forecast in China and neighbouring regions. The satellite will be launched from Xichang Satellite Launch Center in southwest China's Sichuan Province. Fengyun satellites are a series of remote-sensing meteorological satellites developed by China. Fengyun-I and Fengyun-III are polar orbiting weather satellites, while Fengyun-II and Fengyun-IV operate in geostationary orbit.

#### **Arianespace and Spaceflight Sign Contract to Launch Small Satellites on Vega SSMS POC Flight**

April 17, 2018 - Arianespace has signed a landmark agreement with Spaceflight Industries for the launch of several small payloads. This will be the inaugural mission for Spaceflight customer spacecraft on an Arianespace vehicle. The initial batch of spacecraft is slated for launch aboard Vega in early 2019 from Europe's Spaceport at the Guiana Space Center. The contract with the Seattle-based Spaceflight Industries covers a microsatellite and a significant number of cubesats to be launched on the Small Spacecraft Mission System (SSMS) POC flight as well as on a subsequent Vega SSMS flight about one year later. The Vega POC flight will also be the first mission of the SSMS, a modular carbon fiber dispenser, a program initiated by ESA in 2016, with the contribution of the European Commission. For all the European partners involved, its purpose is to address the burgeoning institutional and commercial small spacecraft market with a new rideshare concept. Vega is part of the Arianespace launcher family, alongside the heavy Ariane 5 and the medium Soyuz, operated from the Guiana Space Center. Avio, based in Colleferro, Italy, is the industrial prime contractor for Vega, and the design lead for the SSMS.

#### **Lockheed Martin Provides Australia with Space Situational Awareness System**

April 17, 2018 - With space becoming an increasingly congested and contested domain, the Commonwealth of Australia has chosen Lockheed Martin's iSpace – intelligent Space – system to help with their Space Situational Awareness capability needs. Lockheed Martin is providing the Commonwealth of Australia with an iSpace Space Situational Awareness training and demonstration mission system. iSpace collects data from a worldwide network of government, commercial, and scientific community space surveillance sensors to provide space situational awareness and space command and control. Deployed within the Australian Space Operations Center, the iSpace demonstrator will provide key analytical tools to support derivation of future requirements for critical national defense missions. iSpace will fuse space surveillance data, including data from Australian sensors, into a recognized space picture that provides comprehensive knowledge of the space environment. The system's advanced analytics and fusion capabilities enable proactive assessment and management of space events such as collisions, maneuvers, break-ups, launches, overflight, re-entry, and co-orbital threats. iSpace can be used by defense, civil, commercial, and international customers to satisfy their sensor data processing, space domain awareness, command and control, or battle management needs.

### **ESA Signs Collaboration Agreement for Commercial Lunar Missions**

April 17, 2018 - European Space Agency (ESA) has signed a collaboration agreement with Surrey Satellite Technology Ltd (SSTL) and Goonhilly Earth Station (GES) for Commercial Lunar Mission Support Services at the Space Symposium in Colorado Springs, USA. This innovative commercial partnership for exploration aims to develop a European lunar telecommunications and navigation infrastructure, including the delivery of payloads and nanosats to lunar orbit. The partnership allows for a low-risk, phased approach to implementing a sustainable, long-term commercial service and will support lunar scientific and economic development across Europe and the rest of the world. The agreement includes the upgrade of the Goonhilly Earth Station for commercial deep space services and the development of the space segment with a lunar pathfinder mission. The cooperation also encompasses the commercial and regulatory support to catalyse the lunar economy and provide affordable access to the lunar environment, and ultimately deep space.

### **Cobham to Supply Lockheed Martin Orion Crew Module Elements**

April 17, 2018 - Cobham has been awarded contracts by Lockheed Martin Space to supply a suite of space-rated life support and propulsion components for NASA's Orion deep space exploration spacecraft. The components will fly on the Exploration Mission-2 crew module, the first flight of Orion with astronauts onboard. Components for the Environmental Control and Life Support System (ECLSS) include regulators, positive pressure relief valves, check and relief valves, pyrotechnic valves, and oxygen service valves used to maintain a life sustaining environment for the astronauts. The propulsion components include pyrotechnic valves that isolate and release helium used to pressurize the Reaction Control System and Crew Module Uprighting System. The service valves are used to fill the propellant and pressurant tanks that are also part of these systems.

### **Airbus-built MetOp-C Weather Satellite Gets Ready for Launch**

April 17, 2018 - The MetOp-C meteorological satellite is getting ready for upcoming launch in order to join its siblings and further improve the quality of observations and data provided for weather forecast. Built by Airbus, MetOp-C is the last of the first generation of EUMETSAT Polar System (EPS) series of three polar-orbiting satellites, and is planned to be launched on September 18, 2018, from European Space Center in Kourou, French Guyana, aboard a Soyuz rocket. The MetOp programme has enhanced the accuracy of weather forecasting and allowed extending the short term forecasts by one day. The MetOp satellites have been developed by Airbus Defence and Space for the European Space Agency (ESA) and EUMETSAT, the European Organisation for the Exploitation of Meteorological Satellites, and are part of a joint Europe-US cooperation. Initially, the plan was for each satellite to replace its predecessor, however, the excellent performance of the first two MetOp satellites allows them to be operated simultaneously, providing the meteorological community with increased data. The forthcoming launch of MetOp-C will further improve the quality of observations and data provided for weather forecasts.

### **Sea Launch Deal to S7 Group is Completed**

April 17, 2018 - RSC Energia announced that as for April 17, the deal by the Energia group to sell the assets of the Sea Launch project to S7 Group has been completed. A preliminary agreement to sell the Sea Launch system was signed in late 2016. The agreement establishing the final terms of the deal was concluded in December of the same year. The subjects of the transaction are the ship Sea Launch Commander and the platform Odyssey with their installed rocket segment equipment, the ground support equipment at the Home Port of Long Beach (USA) and the Sea Launch trademark. To complete the agreement, approvals had to be obtained from governmental agencies of Russian and the USA. In addition to this, several agreements had to be signed between organizations participating in the project about settlement of certain obligations between them. At present, all these conditions are met. This made it possible to complete the deal and make the appropriate entries in the Ship Registry about the transfer of rights of ownership of the ships to the buyers, as well as sign acts of transfer and acceptance certifying the transfer of the equipment to the buyers. The final settlement of accounts with the sellers has been completed. In accordance with the agreement RSC Energia will continue its participation in the Sea Launch project as the supplier of components and will provide assistance to the S7 Group with operation and maintenance of the system. It is also planned that Energia will perform the research and development work to adapt the medium launch vehicle Soyuz-5 to launches from the Sea Launch system.

### **Orbital ATK Technologies Support Three Recent United Launch Alliance Atlas V Launches**

April 18, 2018 - Orbital ATK recently supported the launches of three United Launch Alliance (ULA) Atlas

V vehicles with critical components and technologies from multiple divisions across the country. Orbital ATK has played a critical role on every Evolved Expendable Launch Vehicle (EELV) launch since the Air Force program began in the late 1990s. All three launches took place within 12 weeks and included multiple launch vehicle and payload hardware components manufactured by Orbital ATK. For all three launches, Orbital ATK produced the ULA Atlas V vehicles' 10-foot diameter composite heat shields, which provide essential protection for each first stage. For the GOES-S and AFSPC-11 launches, Orbital ATK provided two additional composite structures on each of ULA's Atlas V launch vehicles, which include the Centaur Interstage Adapter (CISA) that houses the second stage engine, and the boattail that adapts from the core vehicle to the five-meter diameter fairing. Orbital ATK fabricated all of these large composite structures at the company's facility in Iuka, Mississippi.

#### **Arianespace to Launch BSAT-4b**

April 19, 2018 - Arianespace announced that it will launch BSAT-4b, under the term of a turnkey contract between B-SAT and Maxar's SSL. BSAT-4b will be launched by an Ariane 5 in 2020 from the Guiana Space Center, Kourou, French Guiana, as part of a turnkey contract between the Japanese satellite operator B-SAT and the California-based satellite manufacturer SSL. BSAT-4b will be the 10th satellite launched for B-SAT and the 32nd commercial geostationary satellite launch contract awarded to Arianespace in Japan. Built by SSL using a 1300 platform, BSAT-4b will feature 24 Ku-band transponders. It will weigh about 3,520 kg at launch and is designed to have a nominal service life of at least 15 years. It will be positioned in geostationary orbit at 110° East. BSAT-4b will serve as a back-up of BSAT-4a, which was launched by Arianespace in September 2017. It will have the same Japan archipelago footprint as BSAT-4a, providing Direct-To-Home (DTH) television to ensure exceptional 4K/8K ultra-high definition (UHD) video distribution for the 2020 Tokyo Olympic Games.

#### **China Strengthens International Space Cooperation**

April 19, 2018 - China will continue to strengthen international cooperation in peaceful exploration and utilization of outer space, said Li Guoping, a spokesman of the China National Space Administration (CNSA). So far, China has signed 121 cooperation agreements with 37 countries and four international organizations, Li said at a press conference about the Space Day of China, which will come on April 24, marking the day the country's first satellite was sent into space in 1970. He raised the example of the 30-year-long cooperation between China and Brazil in the development of earth resources satellites. Currently, the two countries are jointly developing a fourth satellite, which is progressing well. China and France are also in close collaboration. An ocean-observing satellite jointly developed by the two countries will be sent into orbit this year, which will be used to study global climate change. The two countries are also cooperating in developing an astronomical satellite. In February, a seismic-electromagnetic satellite, jointly developed by China and Italy, was launched to study seismic precursors, which might help establish a ground-space earthquake monitoring and forecasting network in the future.

#### **Proton M Mission from Baikonur Cosmodrome Successfully Completed**

April 19, 2018 - The Proton M booster with the Breeze M upper stage that was launched on April 19, 2018, from the Baikonur Cosmodrome has successfully delivered a Russian military payload into orbit. This was the first launch in 2018 and the 417th launch overall of the Proton launch vehicle (including all its modifications starting in 1965). The Proton launch vehicle and the Breeze M upper stage were developed and are manufactured at the Khrunichev State Research and Production Space Center, a part of the Roscosmos State Corporation. The Proton M launch vehicle is an enhanced variant of the Proton heavy-lift booster incorporating improved operational, performance and environmental characteristics. The Proton M launch vehicle in combination with the Breeze M upper stage is capable of delivering payloads weighing over 6 metric tons into geostationary transfer orbit. Currently, the Proton M launch vehicle with the Breeze M upper stage is Russia's main heavy-lift workhorse to launch unmanned spacecraft into near-earth orbits as well as escape trajectories in support of federal and commercial missions.

#### **Airbus Adds Extra Precision to Sentinel-3 Satellite Altimetry**

April 19, 2018 - A new highly precise Micro Wave Radiometer (MWR) built by Airbus is ready to start operations after the launch of the Sentinel-3B satellite built by Thales Alenia Space as prime contractor for this program. It is one of the essential instruments of the Sentinel-3 spacecraft, measuring atmospheric humidity as supplementary information for tropospheric path correction of the altimeter signal. In addition, MWR data is useful to measure surface emissivity and soil moisture over land, surface energy budget investigations which support atmospheric studies and for ice characterization. These corrected

measurements along with a digital elevation mode help the radar altimeter to work in SAR (Synthetic Aperture Radar) mode, which is much more precise and provides much better spatial resolution along the track.

### **ArianeGroup to Propel Effective Space SPACE DRONE Spacecraft into Orbit**

April 24, 2018 - Effective Space, the UK-headquartered company pioneering last-mile logistics in space, announced a strategic partnership with ArianeGroup for the provision of electric propulsion systems for its SPACE DRONE™ spacecraft. The alliance will see ArianeGroup's Arclight Radio Frequency Ion Thruster technology deployed to propel Effective Space SPACE DRONE™ spacecraft to geostationary orbit, and to provide complete station keeping and attitude control services. The highly efficient Arclight electric propulsion system offers a significant weight advantage, helping to limit the weight of the SPACE DRONE™ spacecraft to approximately 400kg, a significant factor in minimizing launch costs and maximizing mission life span. Four Arclight thrusters will allow each SPACE DRONE™ spacecraft to achieve In Orbit servicing to extend the life of a variety geostationary satellites and to be redeployed on demand, according to requirements. The agreement with ArianeGroup Orbital Propulsion follows Effective Space's recent announcements of a US\$100 million multi-year contract win with a major international satellite operator and the company's launch partner, ILS. Effective Space is currently preparing for its first contracted launch of two SPACE DRONE™ spacecraft in 2020.

### **Successful Sentinel-3B Launch Campaign**

April 25, 2018 - The second Sentinel-3 satellite, Copernicus Sentinel-3B, was launched on 25 April 2018, joining its identical twin Sentinel-3A in orbit. This pairing of satellites increases coverage and data delivery for the European Union's Copernicus environment programme. The 1150 kg Sentinel-3B satellite was carried into orbit on a Russian Rockot launcher (produced by Khrunichev Center, ROSCOSMOS) from PLESETSK launch site. Rockot's upper stage delivered Sentinel-3B into its planned orbit. Just 92 minutes after liftoff, Sentinel-3B sent its first signals to the Kiruna station in Sweden. Data links were quickly established by teams at ESA's operations centre in Darmstadt, Germany, allowing them to assume control of the satellite. During the three-day launch and the early orbit phase, controllers will check that all the satellite's systems are working and begin calibrating the instruments to commission the satellite. The mission is expected to begin routine operations after five months. With this launch, the first set of Sentinel missions for the European Union's Copernicus environmental monitoring network are in orbit, carrying a range of technologies to monitor Earth's land, oceans and atmosphere.

### **Rocket Lab Integrates Payloads for First ever NASA Venture Class Launch Services Mission**

April 25, 2018 - Rocket Lab and NASA have carried out the integration of the CubeSat payloads scheduled to launch on the Electron rocket in the first half of 2018 for NASA's first ever Venture Class Launch Services (VCLS) mission. The flight will constitute the smallest class of dedicated launch services used by NASA and mark a significant milestone for Rocket Lab in providing such access to space for a NASA-sponsored mission of small satellites. The recent payload integration process, which took place at Rocket Lab USA's facility in Huntington Beach, California, involves conducting final spacecraft checks and preparations before the CubeSats are loaded into dispensers that protect the payloads during launch, then deploy them from the Electron vehicle once in low Earth orbit. The integrated payloads will be shipped to New Zealand for mating onto the Electron launch vehicle in coming weeks, before a launch from Rocket Lab's private orbital launch facility, Launch Complex 1.

### **Telespazio and Thales Alenia Space Selected to Extend Fiber-Optic System at the Guiana Space Center**

April 26, 2018 - French space agency CNES has chosen the Space Alliance, formed by Telespazio and Thales Alenia Space, to extend the fiber-optic communications system (STFO) at the Guiana Space Center (CSG), Europe's Spaceport in French Guiana, to include the new launch complex under construction for Ariane 6 (ELA4). CNES is in charge of the CSG ground segment. The extended system will be ready to meet the needs of Ariane 6 customers by the end of 2019. The STFO communications system acts as an interface between launch customers' test benches and satellites throughout the different launch preparation phases at CSG, including spacecraft fueling, satellite encapsulation under the launch vehicle fairing and launch pad operations. In operation since the 1990s, this system will now be extended and upgraded to serve Ariane 6 customers. The new system is specially designed to meet the needs of the very high throughput satellite (VHTS) market, since it extends radio-frequency (RF) services to 40 GHz and allows the simultaneous operation of two satellites in Ka-band.

## EXECUTIVE MOVES

### **Globecomm Names Christopher Ivory as Executive Vice President of Commercial Solutions**

April 3, 2018 - Globecomm, a leading global provider of managed network communication solutions, announced the appointment of Christopher Ivory as executive vice president & general manager of commercial solutions, reporting to Chief Executive Officer Jason D. Juranek. Ivory has worked in the telecommunications industry for more than 25 years, mainly focusing on international markets with an emphasis on emerging markets. For the last 10 years, he has held executive sales and management positions with Global Eagle Entertainment and Emerging Markets Communications (EMC), which was acquired by Global Eagle, and was most recently the company's go-to-market head, vice president for land solutions. Prior to Global Eagle, Ivory was senior vice president, telephony at Impsat Fiber Networks located in Buenos Aires, Argentina. He also served as senior manager of carrier relations for BT Carrier Services, and senior manager of sales for MCI's Mexican company, Avantel.

### **SES Appoints John-Paul Hemingway as CEO of SES Networks**

April 6, 2018 - SES announced that John-Paul Hemingway has been appointed as CEO of SES Networks with effect from 5 April 2018, succeeding Steve Collar who officially takes on his new position as President & CEO of SES. In his new function, Hemingway will join the Executive Committee of SES which then comprises Steve Collar (President & CEO), Andrew Browne (Chief Financial Officer), Ferdinand Kayser (CEO SES Video), Christophe De Hauwer (Chief Strategy and Development Officer), Martin Halliwell (Chief Technology Officer), Evie Roos (Chief Human Resources Officer) and John Purvis (Chief Legal Officer). Hemingway previously served as SES Networks' Executive Vice President of Product, Marketing & Strategy where he was responsible for business development, strategy, product development and management as well as marketing. He was the Chief Marketing Officer of O3b Networks before SES acquired the company and integrated it into its data-focused business unit, SES Networks. Hemingway joined O3b from the network specialist Ciena where he held various senior management roles in strategy, sales, product, marketing and technical functions.

### **Integrasys Welcomes Jose Torres as Sales Director**

April 9, 2018 - Integrasys has welcomed a new sales director, Jose Torres, to its team's Herndon office in Virginia, U.S. With over 20 years of experience as a sales executive in the satellite industry, Torres has been recruited by Integrasys to help develop the business further across North America and Asia Pacific. Having previously worked at two of Integrasys' partners, Hughes and Comtech EF Data, Torres brings with him a wealth of knowledge the industry, as well as the company's product offerings and customer base.

### **Media Broadcast Satellite Strengthens EMEA Operations with Hire of Industry Veteran, Nev Ford**

April 9, 2018 - Media Broadcast Satellite announced the appointment of Nev Ford as Director of Business Development for EMEA. Ford has over 20 years' experience in the provision of global satellite solutions with additional expertise in the space sector, specifically In-Orbit Servicing and Earth Observation / Satellite Imaging, plus background in Internet of Things (IoT) and Software as a Service (SaaS). Having founded, managed and successfully grown multiple technology companies since 2006, he brings the right kind of energy, industry knowledge, leadership and business development expertise required to launch Media Broadcast Satellite into new areas of growth. As Media Broadcast Satellite's Director of Business Development for EMEA, Nev will be based out of the UK.

### **Euroconsult Group's SATConsult Appoints David Chegnion as Deputy Managing Director**

April 12, 2018 - SATConsult, part of the Euroconsult Group, announced the appointment of David Chégnion as Deputy Managing Director. David joins the team during a time of intense activity in the sector to reinforce SATConsult's leadership and support the company's development and sustained expansion in France and across the globe. 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. Prior to this, he was Vice President Business Development with Alcatel-Lucent where he participated in the creation of Alcatel-Lucent Mobile Broadcast (AMB). David also managed the London-based satellite operator Europe\*Star after holding several managerial positions in Alcatel Space (now Thales Alenia Space).

### **Andrew Jordan Resigned and Roger Tong Named as AsiaSat's Executive Director & CEO**

April 16, 2018 - Asia Satellite Telecommunications Holdings Limited announced that Andrew Jordan has resigned as Executive Director and Chief Executive Officer with effect from 16 April 2018, and will serve as Senior Advisor of AsiaSat until 31 October 2018. Dr. Roger Tong has been appointed by the Board to succeed Jordan as Executive Director and Chief Executive Officer with effect from 16 April 2018. Prior to the appointment, Dr. Tong served as Vice President, Engineering and Operations and Chief Technical Officer of AsiaSat, and has led various satellite and teleport programs since joining AsiaSat in March 2008. Dr. Tong has over 33 years' experience in the satellite and telecommunications industry and has worked in Canada, Mainland China and Hong Kong. Prior to joining AsiaSat, Dr. Tong was the technical consultant to Telesat Canada. He has also held various senior management positions at COM DEV International, Allen Telecom Inc. and Mark IV Industries Ltd.

### **David Hartshorn Resigns as Secretary General of Global VSAT Forum**

April 19, 2018 - The Global VSAT Forum (GVF) has announced the resignation of David Hartshorn, who has led the association for 20 years, and the organization is inviting applications for the next Secretary General and for an Assistant who will support his replacement. Hartshorn will continue to serve GVF throughout the transition, together with Angie Mar, Director of International Programs, who will be pursuing new opportunities after serving for five years with the association. Applications for the Secretariat positions will be accepted through 19 May, 2018. For more information about these professional industry leadership opportunities and how to apply, visit the GVF Secretariat Applications Webpage.

### **Gogo Realigns Leadership to Drive Operational Excellence**

April 20, 2018 - Gogo announced a series of leadership changes designed to strengthen its organizational structure and increase alignment with the Company's objectives of driving quality for airlines and passengers and sharpening our operational focus. John Wade will serve as the first President of Gogo's Commercial Aviation Division (CA) In this new position, he will have end-to-end responsibility for managing all aspects of the CA business, including product development, technology, sales, account management, quality, marketing and all aspects of product delivery. Sergio Aguirre will serve as President of Gogo's Business Aviation Division. Aguirre will continue to be responsible for managing the Business Aviation (BA) division and will now report directly to the CEO, Oakleigh Thorne. Jon Cobin will serve as Chief Strategy Officer and EVP Corporate Development. Anand Chari, who has served as the Company's Chief Technology Officer since 2011, will move into a new role as Strategic Technology Advisor. Chari has been with Gogo since 2003 and has been instrumental in the design and development of the company's ground-breaking ATG (air-to-ground) and 2Ku (satellite) products.

### **Jean-Claude Tshipama Joins Eutelsat to Head up Broadband in Africa**

April 26, 2018 - Eutelsat Communications announced having finalised the staffing of its teams in charge of broadband activities with the appointment of Jean-Claude Tshipama, who will be heading Broadband in Africa to promote satellite broadband connectivity in Africa. Jean-Claude Tshipama started his career in the telecommunications industry in the 2000s. He was the Commercial Director of Celtel in DR Congo, Director of sales and distribution at Digicel Group and later Director of sales and distribution for Africa at Microsoft Corporation. More recently, he served as CEO of Canal+ in DR Congo. He sits as a non-executive Director on the Board of Equity Bank in Kenya. In his new role as CEO of Broadband in Africa, Jean-Claude Tshipama's core mission will be to ensure that Eutelsat's broadband business is successfully deployed across Africa, drawing on the in-orbit resources of the Al Yah 3 satellite which will operate the service after entering operational service during next summer. The operation of the Al Yah 3 satellite will be followed next year by the launch of the KONNECT satellite.

### **United Launch Alliance Names John Elbon Chief Operating Officer**

April 26, 2018 - United Launch Alliance (ULA) named veteran aerospace industry executive John Elbon as its next Chief Operating Officer, succeeding Dan Collins, who had served as COO since ULA's founding in 2006 and retired early this year. Elbon joins ULA from The Boeing Company where he served as Vice President and General Manager, Space Exploration, a division of Boeing Defense, Space & Security. He was responsible for the strategic direction of Boeing's civil space programs and support of NASA programs such as the International Space Station (ISS), Commercial Crew Development program and the Space Launch System.

## REPORTS

### **NSR Releases Wireless Backhaul via Satellite, 12<sup>th</sup> Edition Report**

April 4, 2018 - NSR's Wireless Backhaul via Satellite, 12th Edition report, forecasts annual satellite capacity revenues reaching \$4 billion by 2027, serving over 3 Tbps of demand. Mobile Backhaul captures the greatest opportunities, as satellite usage increases among MNOs and becomes a widespread solution. Lower capacity prices are reviving Trunking, as new demand is emerging from previously un-addressable markets. IP Content Distribution also continued making solid progress with thousands of sites now active in this segment.

### **Energy Satcom Markets Facing Slow Return to Growth**

April 25, 2018 - NSR's Energy Markets via Satellite, 7th Edition report, forecasts the major energy markets to yield nearly \$1.6 Billion in Retail Revenues by 2027, up from \$900M today. Requiring 80 transponders of FSS capacity and 3.5 Gbps of HTS capacity spread across nearly 280,000 FSS, HTS, and MSS In-Service units for the global Energy Markets, the outlook for Energy SATCOM connectivity is slowly improving. Although revenue growth remains in the low single-digits over much of the forecast period, by 2027 Oil & Gas (the largest opportunity by nearly any metric) remains nearly double the size of both the Mining and Utility segments. Bottom Line, market instability is largely behind the Energy Markets, with a slow return to growth expected over the next ten years.

## UPCOMING EVENTS



**MilSatCom Asia Pacific 2018**, 14-15 May, Singapore, <http://www.milsatcomasia.com/APSCCNL>

With technology rapidly advancing and access to space becoming increasingly congested, the number of nations in the Asia-Pacific region looking to embrace the space frontier is on the rise!

SMI's 8th annual MilSatCom Asia Pacific conference will explore the increasing investment in Space and SatCom assets throughout the Asia-Pacific region, focusing on protected and tactical requirements facing the region, how capability gaps are cost-effectively being fulfilled through COTS procurement strategies and international cooperation, the utilisation of SatCom assets for civilian purposes in the region such as humanitarian and disaster response, and much more.

**KOBA 2018**, 15-18 May, Seoul, Korea, [www.kobashow.com](http://www.kobashow.com)

**Australasia Satellite Forum 2018**, 22-23 May, Sydney, Australia, [www.talksatellite.com/EVENTS.htm](http://www.talksatellite.com/EVENTS.htm)

**Defence Satellites 2018**, 5 -7 June, Paris, France, [www.intelligence-sec.com/events/defence-satellites-2018](http://www.intelligence-sec.com/events/defence-satellites-2018)

**Satellite Interference Workshop**, 5 June, Paris, France, <http://satirg.org/>

**VIETNAM ICTCOMM 2018**, 7-9 June, Ho Chi Minh City, Vietnam, [www.ictcomm.vn/en/home](http://www.ictcomm.vn/en/home)

**CASBAA Satellite Industry Forum**, 25 June, Singapore, <http://casbaaevent.com/events/casbaa-satellite-industry-forum-2018/>

The Casbaa Satellite Industry Forum 2018 brings together a wide range of world-class speakers from the industry to deal with crucial issues in a full day of panel discussions. Keynote addresses will set the stage further for robust and frank debate at this Not-to-be-Missed event!

**SatComm 2018**, 26-28 June, Singapore, [www.communicasia.com](http://www.communicasia.com)

**ConnecTechAsia 2018**, 26-28 June, Singapore, [www.connectechasia.com](http://www.connectechasia.com)

The brand new ConnecTechAsia is where technology, ideas, and business converge. It is the only trade event in Asia that combines two of Asia's biggest business platforms – CommunicAsia, BroadcastAsia, and the inaugural NXTAsia, to create one MEGA TECHNOLOGY EVENT, spanning two venues, covering the entire spectrum of Telecommunications, Broadcasting and Emerging Technology.

**APSAT 2018**, 3-4 July, Jakarta, Indonesia, <http://assi.or.id/en/>

**World Satellite Business Week**, 10-14 September, Paris, France, <http://www.satellite-business.com/en>

**IBC 2018**, 14-18 September, Amsterdam, the Netherlands, <https://show.ibc.org/>

**VSAT Global 2018**, 18-21 September, London, U.K., <https://tmt.knect365.com/vsat-global/>

**Myanmar Connect 2018**, 19-20 September, Nay Pyi Taw, Myanmar, <http://www.capacityconferences.com/Myanmar-Connect>



**APSCC 2018 Satellite Conference and Exhibition**, 2-4 October 2018, Jakarta, Indonesia, <http://apscsat.com>

**VSAT Congress 2018**, 15-16 October, Washington D.C., USA, <https://www.vsatcongress.com>

**Broadcast Indonesia 2018**, 24-26 October, Jakarta, Indonesia, [www.broadcast-indonesia.com](http://www.broadcast-indonesia.com)

**Global MilSatCom 2018**, 6-8 November, London U.K., <https://www.smi-online.co.uk/defence/uk/global-milsatcom>

**Asia-Pacific Regional Space Agency Forum (APRSF-25)**, 6-9 November, Singapore, [https://www.aprsaf.org/annual\\_meetings/aprsaf25/meeting\\_details.php?mail159](https://www.aprsaf.org/annual_meetings/aprsaf25/meeting_details.php?mail159)

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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.apsc.or.kr](http://www.apsc.or.kr).