

# APSCC Monthly e-Newsletter

## DECEMBER 2017

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/sub4\\_5.asp](http://www.apscc.or.kr/sub4_5.asp). 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 November 1 to November 30.*

### INSIDE APSCC

#### **APSCC Session at PTC'18 - Satcom in the Next Decade: What Will the Future Hold?**

22 January 2018, Honolulu, Hawaii, USA, [www.ptc.org/ptc18/](http://www.ptc.org/ptc18/)

The satcom innovation wave is gathering steam globally. Once a conservative industry with change occurring over long cycles, the operator business is radically shifting, value chains are in a state of flux, and ground segment technology is evolving at a rapid pace. New investment, orbits, models and applications all promise to alter the satcom paradigm forever, and the broader telco community is taking notice. What then will the satcom market look like in 5 years? 10 years? Who wins and who loses in this new state of play? This interactive session will explore this question in detail and prognosticate on the landscape for satellite services in the Pacific.

*Moderator:* Chris Baugh, CEO, NSR & Gregg Daffner, CEO, GAPSAT; President, APSCC

*Speaker:* Mark Dankberg, CEO, Viasat  
Pierre-Jean Beylier, CEO, Speedcast  
Stuart Daughtridge, SVP, Kratos  
Imran Malik, VP, SES Networks

APSCC members can enjoy discounted rate when PTC'18 registration. [Click here for more.](#)

### SATELLITE BUSINESS

#### **Intelsat, Gilat Add 4G Broadband Solution to Mobile Reach Solar offering**

November 1, 2017 - Intelsat and Gilat Satellite Networks announced the availability of a joint managed services solution. The offering to mobile network operators (MNOs) consists of a simple solution that adds 4G broadband infrastructure to their networks. IntelsatOne Mobile Reach Solar 4G provides an additional end-to-end managed solution for MNOs who want to upgrade existing Mobile Reach Solar 3G service or expand service footprints into regions where traditional terrestrial network buildouts are uneconomical due to reliability of infrastructure or geographic considerations. The turnkey, solar-powered kit, similar to the Mobile Reach Solar 3G solution announced earlier this year, bundles connectivity provided by Intelsat's Globalized Network with Gilat's industry proven VSAT system for small cell and cellular backhaul. The combination provides everything an MNO needs to deliver 4G service, including power supply, mono-pole, and all satellite and cellular equipment. The Mobile Reach Solar 4G small cell over satellite solution will help MNOs satisfy growing demand for advanced cellular services in Africa, the world's fastest growing mobile phone market.

#### **KVH Launches New High-speed Maritime Network on Intelsat Epic<sup>NG</sup> Satellites**

November 1, 2017 - KVH Industries, Inc. announced the launch of its next-generation, advanced maritime broadband network, joined by service partner, Intelsat. Slated for commercial availability next month, KVH's high-speed overlay to its current mini-VSAT Broadband<sup>SM</sup> service is expected to triple, and in some cases increase by a multiple of six, the data speeds for its maritime customers. At the core of its capabilities, KVH's advanced maritime broadband network will incorporate Intelsat Epic<sup>NG</sup> satellite services and the award-winning IntelsatOne Flex platform. KVH's mini-VSAT Broadband network is also expected to benefit from

increased Asian satellite capacity from SKY Perfect JSAT. At launch, KVH will have the largest maritime Ku-band network offering speeds as fast as 10 Mbps to each terminal. Each Intelsat Epic<sup>NG</sup> satellite has 25-60 Gbps of capacity, which is expected to deliver a major performance enhancement for KVH subscribers. KVH's enhanced service is designed to enable significant improvements in business productivity in the commercial maritime world, and enrich the onboard experience for superyachts and recreational boats.

#### **Kratos Awarded Contract Modification to Update Air Force Satellite Control and Operations**

November 1, 2017 - Kratos Defense & Security Solutions, Inc., a leading security solutions provider, has received a modification under an existing contract from the U.S. Air Force to update satellite control and management systems. Valued at approximately \$11.3 million, the update will allow system-consolidation, architectural updates, and security improvements to support current and future military communication satellite missions while decreasing operation and maintenance costs. Kratos' satellite communication business, the Company's largest, supports more than 85% of U.S. space missions and is used by more than 75% of the world's commercial satellite operators, with products and services ranging from command & control (C2) to signal processing, RF interference mitigation, network operations and cyber security.

#### **Comtech EF Data Announces Gigabit Data Rate Capability for CDM-760 Modem**

November 2, 2017 - Comtech EF Data Corp. announced that its CDM-760 Advanced High-Speed Trunking and Broadcast Modem has been significantly enhanced with faster data rates. The award-winning modem is an industry-preferred solution for high-speed trunking, fiber restoration and broadcast applications. Now with 2X faster speeds, the CDM-760 supports > 720 Mbps simplex and > 1.4 Gbps duplex data rates. The Gigabit capability enables faster data transmissions between satellites and ground stations, allowing service providers to deliver new services and improve quality of experience for end users. In addition, the modem now offers expanded modulation techniques with support for 128APSK and 256APSK operation, increasing the potential spectral efficiency and maximizing the usable throughput of satellite links.

#### **CETel Chooses AFRICASAT-1a for Pan-African VSAT Services**

November 6, 2017 - MEASAT Satellite Systems announced an agreement with Central European Telecom Services (CETel) to provide pan-African C-band VSAT satellite services via the AFRICASAT-1a satellite at 46.0°E. AFRICASAT-1a's high-power and excellent look angles, combined with MEASAT's customised solutions, were defining factors in CETel's selection. The deal underscores the satellite's attractiveness amongst teleport operators for services across the highly competitive African market. CETel, a German provider of managed end-to-end communications solutions, services global customers from their teleport in Germany. Their independent solutions approach closed many long-term agreements in various industries and make them a perfect partner for individual and encompassing communications networks.

#### **Speedcast International Completes UltiSat Acquisition**

November 6, 2017 - Speedcast International has completed the previously announced 100% acquisition of UltiSat in a cash transaction of up to US\$ 100M, payable over two years and subject to ongoing financial performance. The closing is effective as of 1 November 2017. The acquisition of UltiSat accelerates Speedcast's push into the government vertical, a global market of USD 4.8B per annum, and gives Speedcast critical mass in the vertical with over USD 100M in revenues globally. Increasing demand for connectivity and a new investment cycle will underpin long-term growth in the government vertical, supported by technology enhancements and satellite capacity availability.

#### **ESA, ViaSat Partner on ViaSat-3 Satellite Communications System Development**

November 6, 2017 - ViaSat announced a Public Private Partnership (PPP) between its wholly owned subsidiary ViaSat Antenna Systems S.A. and the European Space Agency (ESA), to develop key components of the ViaSat-3 satellite communications system with European industry. ViaSat-3 is an ultra-high capacity satellite platform, comprised of three ViaSat-3 class satellites with state-of-the-art ground network infrastructure. Each ViaSat-3 satellite will offer over 1-Terabit per second (Tbps) of network capacity, which is comparable to the total capacity of all commercial satellites in space today. The platform is expected to give consumers greater choice in their Internet Service Provider (ISP) by enabling 100+ Megabits per second (Mbps) broadband speeds to the home.

#### **RSCC and Chronosat to Expand Cooperation on the Use of the Express-AM7 Satellite**

November 7, 2017 - The RSCC and the European company Chronosat GmbH have signed a contract stipulating an increased use of RSCC's Express-AM7 satellite capacity by the European company. Cooperation between the RSCC and Chronosat GmbH (Germany) began in 2017, when the European

company began using the capacity of the heavy-lift Express-AM7 satellite to provide services in the countries of the Middle East. The successful experience of working with RSCC and competitive advantages of the new Russian AM7 satellite, which was orbited in 2015, have allowed to significantly expand the capacity leased by Chronosat GmbH. A strategic agreement worth more than \$14 million over the next five years has been reached on the use of the RSCC spacecraft capacity.

#### **InterSat Launches Broadband Internet on ABS-3A Satellite in Africa**

November 7, 2017 - InterSat announced the launch of iDirect platforms on ABS-3A C-band and Ku-band beams. These platforms will provide quality broadband internet across Sub-Sahara and South Africa, as well as serving French speaking African countries. With the growing demand for broadband internet services, users in Africa demand services at low entry cost including hardware and bandwidth. InterSat with ABS, can now offer Software Virtual Network Operator (SVNO) access to resellers in Africa to distribute and manage internet services at affordable pricing on both C and Ku-band. Resellers can control their VSAT network and manage services to their clients without the need for investment in hard-ware. InterSat will operate the services from its new and state-of-the-art teleport in Nairobi using ABS-3A's pan-Africa beams. Both Ku- and C-band coverage offers excellent elevation across Africa.

#### **Hughes Signs Contract with OneWeb for Production of Ground Network System**

November 7, 2017 - Hughes Network Systems has signed a contract for \$190M with OneWeb for the production of a ground network system, supporting OneWeb's constellation of Low Earth Orbit (LEO) satellites in its mission to bring affordable broadband service to millions of households, schools and other end users around the world. This contract builds on the original system development agreement between the companies signed in June 2015, bringing the total value of both to over \$300M. It includes production of the gateway sites each with multiple tracking satellite access points to support operation and handoff of high-speed user traffic between satellites. Joint development of the ground network system began approximately two years ago. The current agreement includes equipment to support multiple satellite access points in gateway locations around the world, each including a custom switching complex, outdoor modems, and power amplifiers. Shipments are expected to begin in mid-2018.

#### **La Poste Sénégal Picks Eutelsat to Interconnect 200 Post Offices**

November 7, 2017 - Eutelsat Communications announced a multi-year agreement with La Poste Sénégal, the country's public postal service company, to interconnect 200 post offices nationwide. La Poste Sénégal has chosen high-power Ku-band capacity on the EUTELSAT 7 West A satellite to support the country's largest VSAT network. In addition to improving the performance of La Poste Sénégal's Intranet for all employees, the new network will be used to route simple postal and banking services, including money transfers and pension withdrawals. The agreement with Eutelsat to develop an integrated digital network underscores Senegal's ambition to boost economic growth through strong ICT initiatives that reflect "Sénégal Numérique 2025" which is part of the nationwide "Plan Sénégal Emergent" programme. The World Bank records an acceleration of economic growth in Senegal over the past two years, reaching 6.5%, and making the country one of the top performing economies in Sub-Saharan Africa.

#### **Es'hailSat to Deliver Inmarsat L-band Services in Qatar**

November 7, 2017 - Es'hailSat announced a new partnership with Inmarsat, which will see the Qatar-based communications satellite operator complement its existing portfolio of fixed Ku and Ka-band services with Inmarsat's award winning L-band service. The landmark partnership is the first of its kind in Qatar, which consolidates all L-band service requirements for the country through Es'hailSat. The agreement is part of Es'hailSat's planned expansion, designed to provide customers with access to the most flexible and reliable satellite connectivity services in the region. The addition of Inmarsat's L-band service to Es'hailSat's portfolio means that however remote the location or harsh the climatic conditions, customers will always stay connected.

#### **FCC Grants US Market Access to Telesat for its Global LEO Satellite Constellation**

November 7, 2017 - The U.S. Federal Communications Commission (FCC) took bold action toward improving the availability of cost effective, fiber-like connectivity, both in the U.S. and worldwide. In a significant ruling, the FCC granted Telesat's petition to access the U.S. market using Telesat's soon to be deployed global LEO satellite constellation. Telesat has obtained worldwide rights to the use of approximately 4 GHz of Ka-band spectrum for its LEO system, which is ideal for high-performing broadband satellite networks. Telesat has a long record of industry firsts that have brought major satellite innovations to market and the company's LEO constellation will be another achievement that transforms global

communications. Telesat's LEO system will both enable and accelerate the world's digital transformation by providing high-performing, cost-effective, fiber-like broadband anywhere in the world for business, government and individual users. The initial constellation will consist of around 120 satellites by 2021 and Telesat is evaluating options to expand its system beyond the initial deployment.

#### **Intelsat and Coca-Cola Partner to Promote Digital Access in Africa**

November 7, 2017 - Intelsat S.A and The Coca-Cola Company are working together to bring satellite-enabled Wi-Fi services to remote communities across Africa. The partnership will support both companies' future business plans and also their mutual efforts to promote sustainable development, especially in underserved communities. The Coca-Cola Company is already working in developing communities around the world to foster sustainable development activity like supporting clean water and sanitation services as well as economic empowerment for women. Under the new partnership, Intelsat will work with The Coca-Cola Company to establish Wi-Fi access at certain retail facilities in rural areas, enabling personal and commercial connectivity for citizens.

#### **SES Networks First to Achieve MEF CE 2.0 Services Certification over Satellite**

November 7, 2017 - SES Networks has achieved the rigorous MEF Carrier Ethernet 2.0 (CE 2.0) certification, making it the first and only global managed data service provider capable of delivering ubiquitous, high-performance, carrier-class Ethernet networks and services worldwide over satellite. The MEF CE 2.0 certification is recognition that SES Networks now has the capability to deliver today's most advanced, high-performance and secure Ethernet services across its global footprint. Achieving MEF certification is the first of SES Networks' many initiatives to transform the role of satellite-enabled services as a pillar of mainstream global connectivity.

#### **Comtech Xicom Technology Awarded \$7.7 Million Military Airborne TWTA Contract**

November 7, 2017 - Comtech Telecommunications Corp. announced that during its first 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 production contract for more than \$7.7 million from a U.S. military integrator to supply high-power traveling wave tube amplifiers (TWTAs). This is the follow-on order for a multi-year airborne strategic military program.

#### **Speedcast and SES Networks Partner in Latin America to Provide Fiber-like Connectivity**

November 8, 2017 - Speedcast and SES, the world-leading satellite operator, announced an agreement to provide several hundreds of Mbps of connectivity into Peru. This is the first agreement between the companies in Latin America to provide Medium Earth Orbit (MEO) capacity with high throughput capabilities and low latency. The agreement marks the fourth MEO national partnership between Speedcast and SES Networks. The agreement enables Speedcast to provide network services to mobile network operators (MNOs) and enterprise customers in areas of Peru where high performance internet is in high demand and short supply, enabling a host of latency-sensitive and bandwidth-hungry applications. By utilizing SES's O3b constellation – the only satellite system with the high throughput and low latency required for broadband, 4G/LTE and cloud services – Speedcast will deliver internet performance, customer support, and integration with their customers' networks on par with terrestrial fibre in the region.

#### **Comtech to Support Mobile Backhaul Network Expansion in Saudi Arabia**

November 8, 2017 - Comtech EF Data Corp. was awarded a \$1.1 million order for infrastructure equipment from NOVASat, a leading systems integrator in Saudi Arabia. The equipment will be utilized by a large mobile network operator to expand its existing Comtech EF Data-based mobile backhaul network to support both fixed and mobile users. To support the network expansion, the mobile operator will employ the CDM-760 Advanced High-Speed Trunking and Broadcast Modem, which provides maximum link efficiencies at high speeds via its industry-leading DVB-S2 Efficiency Boost technology and the CDM-625A Advanced Satellite Modem, equipped with the VersaFEC<sup>®</sup>-2 Forward Error Correction to provide the best application performance for medium- to low-speed links. Both modems feature the DoubleTalk<sup>®</sup> Carrier-in-Carrier<sup>®</sup> bandwidth re-use technique to provide optimal economics. Also, Comtech EF Data's FX Optimization solutions and intelligent LPOD Ku-Band Block Up Converter (BUC) will be utilized.

#### **Speedcast Forms Alliance with SRH Marine to Deliver End-to-end Solution for Maritime Segment**

November 8, 2017 - Speedcast International announced a strategic alliance with SRH Marine. The agreement redefines the management of navigation and communications across the maritime industry by providing a fully integrated shipboard solution delivered by a single supplier. The alliance will deliver a



simplified solution for the operation, certification, management and maintenance of all bridge electronics on board vessels across the globe. The solution will be delivered by a single provider, reducing the administrative overhead and operational expenses for vessel management.

#### **JetBlue to Tap into ViaSat-2 to Meet Growing Broadband Demand**

November 8, 2017 - ViaSat announced it expanded its relationship with JetBlue, and will serve as the direct in-flight internet service provider to the airline. JetBlue aircraft will be upgraded to the latest ViaSat hardware, and will have access to the additional coverage and capacity offered by ViaSat's next-generation ViaSat-2 and ViaSat-3 satellite platforms. JetBlue first offered the ViaSat in-flight internet service, branded Fly-Fi<sup>®</sup>, in December 2013. JetBlue is the only U.S. carrier that has deployed a fast and free in-flight Wi-Fi service for all devices – across its entire fleet – encouraging passengers to stream, web browse and use the internet as they would expect to at home or at work.

#### **Liquid Telecom, VT iDirect and Telesat to Deliver Enhanced Services to Businesses in Africa**

November 8, 2017 - Leading pan-African telecoms group Liquid Telecom, a subsidiary of Econet Global, has entered into an arrangement with Telesat and VT iDirect to deliver enhanced services to enterprise customers in central and southern Africa. Liquid Telecom will leverage the iDirect platform to distribute cost-effective satellite services, using Telesat Africa-Africa capacity on the Telstar 12 VANTAGE satellite, as part of a multi-year agreement. Liquid Telecom will deploy iDirect's Universal Satellite Hub at its teleport in Johannesburg, South Africa, along with the next-generation iQ Desktop remotes to offer Layer 2 VPLS connectivity across both fiber and satellite on a single network for the first time. The new offering provides a complete, end-to-end solution for VSAT integrators and corporate customers that will deliver more reliable, consistent and cost-effective broadband for users across any network. It also will be available as a managed service offering, enabling enterprise customers access to a range of scalable and secure cloud-based services, such as Microsoft Azure, Microsoft Dynamics 365, Microsoft Office 365, Enterprise Mobility Suite and Windows 10.

#### **Intellian Awarded Antenna Development Contract for US Navy**

November 9, 2017 - Intellian, a leading provider of maritime satellite antenna systems, has been awarded a contract to research, design, and deliver antenna systems for the US Navy. It marks one of the most comprehensive antenna system packages ever provided to the US Navy, and will transform its operational capabilities during its long and often hazardous deployments. Under the terms of the contract this groundbreaking new antenna system will provide enhanced capabilities and will allow the US Navy to retire an older generation system. The Intellian design was selected by the US Navy based on its innovative technology and approach. The product will be certified to MIL-STD 167-A & 461-F.

#### **Thuraya Launches VoIP App and Service**

November 9, 2017 - Thuraya Telecommunications Company announced the launch of Thuraya Talk, its high quality Voice over IP (VoIP) service. Thuraya Talk gives customers an easy and convenient way to stay connected and opens up unique communication capabilities for both personal and professional use. All users will receive their own dedicated number which can be used for outgoing and incoming calls. The initial phase of the service allows callers to make voice calls and send text messages using the Thuraya Talk app that can be downloaded from the App Store or Google Play starting today. The app can be used over any Internet connection from anywhere in the world, either using Wi-Fi or mobile data. Callers can make phone calls to Thuraya satellite phones or to any destination globally. It is ideal for users who call Thuraya numbers and offers them savings of up to 60%.

#### **Inmarsat Develops a Comprehensive Global IoT Network with JT Group**

November 9, 2017 - Inmarsat has announced the formation of a new strategic partnership with international telecommunications provider JT Group (formerly Jersey Telecom), that will enable Inmarsat to deliver a holistic connectivity solution for Internet of Things (IoT) technology. The global network will combine Inmarsat's existing satellite communication infrastructure and cellular data provided by JT. This will enable Inmarsat's customers to access a global connectivity network from a single provider to deliver the next generation of IoT technology. In the first demonstration of the transformative potential of a global IoT network, JT and Inmarsat have worked with Actility to establish a smart city initiative in Kigali, Rwanda. The satellite-enabled, city-wide IoT network utilizes JT's M2M sim cards within Actility's base stations to create the connectivity gateways required for IoT applications. This connectivity solution has enabled a variety of large scale IoT projects to be deployed in Kigali, including a smart bus project, real-time monitoring of air pollution level, precision farming and a connected surveillance system.

### **Panasonic and Emirates Unveil Range of Industry Firsts**

November 13, 2017 - Panasonic Avionics Corporation and Emirates have unveiled a range of industry firsts that will be introduced on the airline's newest Boeing 777-300ER. The developments are the culmination of a more than 20-year partnership between Emirates and Panasonic to deliver an unmatched inflight entertainment experience. Throughout the partnership Panasonic and Emirates have remained at the forefront of passenger experience innovation, introducing a wide range of solutions including line-fit Wi-Fi connectivity along with a cutting-edge in-flight entertainment system that is 12 percent lighter overall than previous versions. Emirates' passengers will first experience the benefits of these solutions across all classes on the airline's newest Boeing 777-300ER fleet. These cabins will feature a refreshed look complemented with the very latest in IFEC technology.

### **ITOCHU and SKY Perfect JSAT Agree to Reseller Partnership with Orbital Insight**

November 15, 2017 - ITOCHU and SKY Perfect JSAT Corporation have agreed to a reseller agreement with Orbital Insight, Inc. to offer Orbital Insight's geospatial analytics to customers of ITOCHU and SKY Perfect JSAT. Orbital Insight sources imagery from satellites, drones, and other UAVs and then applies artificial intelligence to automate the analysis of millions of images at scale. As pioneers of space and satellite businesses, ITOCHU and SKY Perfect JSAT plan to utilize the partnership with Orbital Insight to actively develop businesses that use LEO through customer and market development. SKY Perfect JSAT customers will have access to Orbital Insight's cutting-edge analysis and applications, including measuring retail traffic, monitoring construction, economic indexing, determining the scope of natural disaster impact, and more. SKY Perfect JSAT launched a LEO satellite business in 2015. They have established successful partnerships with leading companies in the LEO satellite industry, including Axelspace Corporation of Japan, Planet Labs Inc. of the U.S., KSAT AS of Norway, and LeoSat Enterprises Inc. of the U.S.

### **Hughes Selected for Complex Commercial SATCOM Solutions (CS3) Contract Vehicle from GSA**

November 15, 2017 - Hughes Network Systems, LLC has been named one of multiple awardees on the General Services Administration's (GSA) Complex Commercial SATCOM Solutions (CS3) contract. CS3 is a multiple-award, Indefinite Delivery/Indefinite Quantity (IDIQ) multiple-award contract vehicle with a period of performance of up to 10 years, including a base period of five years, with two option periods of three years and two years, respectively. This recent award marks the third time that Hughes has been selected as a provider for this lineage of contracts and is a testament to the company's proven delivery of satellite solutions for the federal government. CS3 will help simplify the procurement of complex global SATCOM solutions, such as disaster recovery communications and broadband delivery to underserved regions.

### **Saudi Arabian Airlines Partners with Panasonic for 35 Aircraft In-flight Entertainment Deal**

November 15, 2017 - Saudi Arabian Airlines (SAUDIA) and Panasonic Avionics Corporation (Panasonic) have announced a new 35-aircraft commitment for inflight entertainment across the carrier's short haul fleet. The carrier has selected Panasonic's X Series entertainment solutions, specifically, the company's eXO and eX1 systems, for installation on its various fleets. Panasonic's X Series inflight entertainment solutions feature the industry's largest selection of options including HD monitors, capacitive touch handsets, in-seat power, and ensures a premium experience in every cabin class. Saudia has also selected Panasonic's eXO overhead entertainment system to be line-fit installed across 20 Airbus A320neos and 15 A321neos that the airline has on order. This builds on the carrier's previous commitment in April 2016 when it selected eXO for 30 Airbus A320neo aircraft.

### **Inmarsat SB-Safety Connected Flight Deck Enters Service Evaluation on United Airlines**

November 16, 2017 - Inmarsat and Cobham SATCOM, the leading manufacturer of satellite communications solutions, announced that SB-Safety (SB-S) has entered service evaluation on the first United Airlines Boeing B767 aircraft. The important milestone was achieved as part of a technology evaluation of Inmarsat's next generation SB-S flight deck communications platform, which has been installed on United Airlines' Boeing 767 aircraft with Cobham's AVIATOR 300D satcom system. SB-S offers global, high-speed, secure connectivity for the flight deck, enabling powerful and flexible communications in real-time, enhancing airline safety, asset utilisation, security, and operations.

### **Our Telekom to Roll out First 4G/LTE Network and Broadband in Solomon Islands with SES Networks**

November 16, 2017 - Solomon Telekom Company Limited, trading under the name Our Telekom, is boosting its capacity with SES Networks to support the launch of its upcoming 4G/LTE network across the Solomon Islands archipelago. SES announced that Our Telekom, the leading operator in the Solomon Islands and Oceania region, is upgrading fibre-like high throughput capacity again on the O3b Medium Earth Orbit (MEO)

satellite fleet to roll out a suite of 4G/LTE services for consumers and businesses this year, in response to rapidly rising data consumption by subscribers. The Solomon Islands government (SIG) is also a chief beneficiary of this significant capacity expansion with SES Networks, which will support Our Telekom's efficient delivery of high-speed, reliable broadband for critical internet services to the SIG's offices in the capital, Honiara.

#### **Emirates Commits to Inmarsat's GX Aviation In-flight Broadband for Boeing 777X Fleet**

November 16, 2017 - Inmarsat notes an announcement made by its partner Thales, confirming that Emirates intends to install Inmarsat's GX Aviation high-speed in-flight broadband service on its Boeing 777X aircraft fleet. The new agreement is part of Emirates and Thales' plans to develop state-of-the-art in-flight entertainment and connectivity (IFEC) on the airline's new Boeing 777X fleet. Emirates has 150 Boeing 777X aircraft on firm order, with deliveries currently scheduled from 2020.

#### **SKY Perfect JSAT Signed Agreements to Deliver Maritime Service with KVH**

November 21, 2017 - SKY Perfect JSAT Corporation (SJC) and KVH have concluded agreements to deliver new-generation maritime broadband service. In order to meet ever-growing demand for maritime broadband as well as to get ready for the new era of Ship-IoT, SJC plans to launch a maritime broadband service enhanced from SJC's current service "OceanBB". KVH is a leading manufacturer providing SJC with key equipment for "OceanBB" and SJC's valued roaming partner to complement the satellite coverage for "OceanBB". SJC and KVH have agreed to continue its partnership in providing new-generation maritime broadband service. SJC new-generation maritime broadband service, which will be launched in early 2018, will achieve the maximum data speed of 10Mbps shore to ship, and 3Mbps ship to shore, which is faster than ever. In addition, SJC is considering apply its High Throughput Satellite to the new network, introducing new service menus such as customized plans, management tools and value added services. Entering into these agreements with KVH enables SJC to accelerate its development and provision of new-generation maritime broadband service that will meet customers' satisfaction ever than before.

#### **Eutelsat 172B Set to Transform Connectivity Landscape in Asia-Pacific**

November 21, 2017 - Eutelsat Communications' all-electric EUTELSAT 172B satellite that went into full commercial service this morning is now offering greatly enhanced flexibility, power and connectivity for users in a vast region stretching from the West coast of the Americas to Asia, Oceania and across the Pacific. The transfer of services to EUTELSAT 172B from EUTELSAT 172A was completed seamlessly in a series of overnight manoeuvres, releasing EUTELSAT 172A for an alternative orbital position to serve customers in the Asia-Pacific region. Launched in June, EUTELSAT 172B sets a new benchmark as the fastest satellite to reach geostationary orbit using electric propulsion (in only four months) and the first optimised for in-flight connectivity across the Pacific. Its innovative High Throughput payload, consisting of 11 spotbeams, will transform efficiency by enabling power to be dynamically allocated as aircraft fly high traffic routes in the Asia Pacific region. This step change will allow Panasonic, the major client of the HTS payload, to better meet passenger demand and cost-effectively ensure consistently high levels of service to airlines.

#### **SES and ESA Set up New Government Satcom Platform**

November 21, 2017 - SES leads a European consortium of industry partners to sign an agreement with the European Space Agency (ESA) to set up Pacis-1, a new satellite communication platform for governments that is aimed at making secure satellite communications accessible and available to governments and institutions. Pacis-1 is part of the ESA's Govsatcom Precursor programme and is the first step in demonstrating how the European space industry can support the EU's Govsatcom initiative and leverage governmental and commercial satellite services to provide secure access to satellite communications for a wide range of governmental applications. Under the agreement, SES will put in place the architecture and service concept of Pacis-1, leveraging the space assets and ground infrastructure of the stakeholders involved in the project. Under the Pacis-1 public-private partnership, the members of the consortium will be providing specific technological contributions, including engineering, satellite capacity, commercial, project management and other services. Other industrial partners that have joined the SES-led consortium are Redu Space Services, GovSat, Newtec, QinetiQ and Tekever.

#### **CMMB Vision Establishes Joint-Lab for Satellite Multimedia Services**

November 21, 2017 - CMMB Vision announced that, following the CMMB Vision-UW Joint Research Center (CMMB-UW Center) in the US with University of Washington, the Company's China joint-venture Global Vision has established a Joint Laboratory (Joint-Lab) with University of Electronic Science & Technology (UEST) and Telematics Industry Applications Alliance (TIAA) to establish a joint-research laboratory (Joint-

Lab) in Chengdu, China dedicated to satellite-LTE integrated multimedia services. The Joint-Lab will focus on development of essential technologies and standards and facilitate their industry adoption so as speed up product and service commercialization tailored to the satellite connected-car multimedia. It will closely interact with Company's CMMB-UW Center in the US to integrate latest technologies and ideas from both China and the US and facilitate their globalization. The establishment of the Joint-Lab also signifies the satellite multimedia platform pioneered by the Company is fast growing and gaining industry recognition, hence paving a strong foundation for its future success.

### **Panasonic Introduces Giant Leap in In-flight Connectivity as Eutelsat 172B Enters Service**

November 21, 2017 - Panasonic Avionics introduced a major advance in in-flight connectivity with the entry into service of its first High Throughput Satellite (HTS) capacity over the Pacific Ocean. The EUTELSAT 172B satellite, which launched in June, is operated by Eutelsat Communications. Leveraging its unique design, Panasonic will deliver greatly enhanced in-flight broadband connectivity, live television and mobile phone services to aircraft flying high traffic routes across the Asia Pacific region spanning the West coast of North America to Asia, and down to Australia and the Pacific islands.

### **ViaSat Signs Satcom Direct as First Value-Added Reseller for Ka-band In-flight Internet Service**

November 21, 2017 - ViaSat has expanded its current relationship with authorized value-added reseller Satcom Direct (SD), to offer ViaSat's full suite of in-flight connectivity (IFC) systems and services to large and mid-cabin business jets. The new agreement adds ViaSat's latest Ka-band business jet service to SD's IFC portfolio, which already included ViaSat's global Ku-band IFC service. ViaSat's Ka-band service is expected to be the fastest in-cabin business jet internet service on the market, with the most available data. Through this new agreement, SD will now resell ViaSat's high speed, high-capacity business aviation service plans.

### **Cobham Antenna Approved for Inmarsat Global Xpress**

November 22, 2017 - Cobham SATCOM has received Inmarsat Type Approval for operation of its technology-leading EXPLORER 8100GX 1 metre antenna system on the Global Xpress satellite network. As the first Auto-Acquire, Drive-Away Antenna System for Global Xpress to employ unique Cobham SATCOM developed stabilisation technology, Inmarsat Type Approval means that EXPLORER 8100GX is now ready to ensure high link availability and reliability for a variety of users in diverse sectors from broadcasting to defence.

### **CMMB Vision Announces Agreement to Support Beidou Satellite Navigation Precision-Positioning**

November 23, 2017 - CMMB Vision announced that its China joint-venture, Global Vision Media Technology Co., Ltd. (Global Vision) has earlier entered into an agreement with China Aerospace New Information Technology Co., Ltd. (ICASC) in Beijing to establish a strategic partnership providing services to China's Beidou Satellite Navigation System (BDS) in support of its "centimeter-level" precision navigation and positioning capability as well as future value-added services under the Kui-Long Platform. Centimeter-level is the highest distance accuracy level for satellite navigation and location-based services in the world today. CMMB Vision's unique L-band satellite platform has ubiquitous coverage and very low-cost and universal data distribution capabilities, hence can instantly deliver such enhancement signals to an infinite number of BDS devices and allow all devices to reach "centimeter-level" accuracy in the most scalable and efficient manner, which can in turn vastly enhance BDS's commercial value, particularly to connected-cars, self-driving, logistics, transportation, and maritime applications.

### **Marlink Acquires OmniAccess to Create the Leading Maritime VSAT Company**

November 23, 2017 - Backed by Apax Partners, Marlink has signed a definite agreement to acquire a majority stake in OmniAccess. The existing management team of OmniAccess will remain unchanged and continue to keep a significant shareholding in the company. OmniAccess shares with Marlink the entrepreneurship and relentless drive to be in a pole position of the maritime satcom industry in terms of cutting-edge technology, innovation, service quality and ultimate customer satisfaction. While leveraging the Marlink Group capabilities, OmniAccess will remain a stand-alone company, functioning as the competence center for broadband connectivity solutions for the high-end superyacht and boutique cruise-line customers.

### **Telkom Group Acquires TS Global Network**

November 24, 2017 - PT Telekomunikasi Indonesia International (Telkom), through its subsidiary PT Telekomunikasi Indonesia International (Telin), agreed on a majority purchase of TS Global Network Sdn Bhd (TSGN), Malaysia's dominant provider of satellite communications services. The transfer of majority



ownership of TSGN to Telin was marked by the signing of a conditional sale and purchase agreement executed by the President Director of Telin Faizal R. Djoemadi, CEO of TSGN Kent Ho, and TSGN shareholders, witnessed by Telkom's Wholesale & International Service Director Abdus Somad Arief and Chairman of TSGN Datuk Hod Parman, in Cyberjaya, Malaysia. TSGN is the largest VSAT service provider in Malaysia with corporate customers from various industries such as plantation, mining, government and banking, as well as TSGN having affiliated companies in Brunei and Myanmar.

### **AsiaSat 9 Fully Operational at 122°E**

November 27, 2017 - AsiaSat 9, the most powerful member of the AsiaSat fleet, is fully operational at 122 degrees East following successful migration of all services from AsiaSat 4, delivering enhanced power, greater bandwidth and improved efficiency to customers for advanced DTH, TV distribution, VSAT broadband and mobility services across the Asia-Pacific. The new AsiaSat 9 features significant upgrades, including Asia's highest powered 110 watt C-band amplifiers, special filter design, star tracker and hall-effect thrusters that generate higher efficiency, enhanced stability and reliability in network operations. In addition, AsiaSat 9's three new Ku-band Myanmar, Indonesia and Mongolia beams, and two enhanced Ku-band beams serving Australasia and East Asia provide high downlink power up to 55 dBW that allows use of small antennas for more cost effective roll out of customers' networks.

### **Thaicom and TOT Renew Contract for Nationwide High-speed Internet Service**

November 27, 2017 - Thaicom Public Company Limited announced that it has signed a 3-year renewal contract with TOT Public Company Limited (TOT), a leading telecommunications service provider in Thailand, to support TOT's mission to provide high-speed Internet service on a nationwide scale, especially in remote areas without terrestrial telecommunications infrastructure. Under the agreement, Thaicom will continue to provide its high-speed satellite Internet service for 3 years (2017 - 2020) to support TOT's mission to provide connectivity for the general public, as well as customers in both government and private sectors. Thaicom's broadband satellite, - THAICOM 4, also known as IPSTAR 1 - helps TOT to retain its existing satellite broadband customers, increase service quality, and expand its business - thus maintaining its position as a leading telecommunications service provider in Thailand.

### **Cobham Reduces Integrated Global Xpress Antenna Costs**

November 28, 2017 - Cobham SATCOM has revealed an innovative new solution that can significantly reduce the cost and simplify the installation and management of Inmarsat Global Xpress (GX) networks using multiple Ka-Band antennas. Multiple antennas are frequently used on board to overcome link losses caused by satellite blocking from the ship structure or other deck equipment. Compatible with Cobham SATCOM's technology-leading SAILOR 100 GX systems, the solution has already received Inmarsat type approval for use with the Inmarsat GX satellite systems. Supported by the unique single cable solution used on SAILOR antennas, Cobham SATCOM has overcome the need to add a 19" rack unit to operate a multiple antenna system, introducing potential installation savings in the region of US \$10,000.

### **NSSLGlobal Appoints Wrights Technologies as its Strategic Partner for New Zealand**

November 28, 2017 - Independent global satellite communications provider NSSLGlobal and professional marine electronics reseller Wrights Technologies today announce that they have formed an exclusive partnership. This alliance will see Wrights Technologies selling NSSLGlobal's full range of maritime and land-based VSAT solutions in New Zealand alongside third party solutions such as Iridium and Inmarsat's L-Band and Global Xpress. This strategic partnership further underlines the importance of the rapidly-growing APAC market to NSSLGlobal. APAC has always been a region of major importance for the satellite communications provider, and now with the New Zealand and the South Pacific Islands covered by this partnership, NSSLGlobal will continue its commitment to the region.

### **Orbital ATK Stockholders Approve Acquisition by Northrop Grumman Corporation**

November 29, 2017 - Orbital ATK announced that its stockholders overwhelmingly approved the merger agreement providing for the proposed acquisition of Orbital ATK by Northrop Grumman Corporation at a special meeting of stockholders held on November 29, 2017. Holders of more than 99% of Orbital ATK's common stock present at the meeting or represented by proxy voted in favor of approving and adopting the merger agreement, which represented approximately 79% of the total number of outstanding shares of Orbital ATK's common stock as of the October 10, 2017 record date for the special meeting. The company expects the transaction to close in the first half of 2018, pending receipt of regulatory approvals.

### **Latin American Service Providers and Telcos Drive Growth with SES Networks Enterprise+ Broadband**

November 30, 2017 - Telcos, internet service providers (ISPs), system integrators and value-added resellers in Latin America can now seamlessly deliver reliable, scalable internet and cloud connectivity using SES Networks' latest turnkey carrier-grade multi-tenant platform, Enterprise+ Broadband, SES announced. The highly flexible and customisable SES Networks Enterprise+ Broadband platform for Latin America is underpinned by SES's unique combination of satellites providing comprehensive coverage over the region, an extensive global teleport infrastructure, and iDirect's scalable ground system capabilities. SES Networks Enterprise+ Broadband was first launched in Africa in 2015 and is widely used and valued by numerous regional telcos and ISPs across Africa for its flexibility to scale connectivity whenever required by their customers.

### **Hughes Re-certified as Meeting Newest ISO Quality Management System Standards**

November 30, 2017 - Hughes Network Systems, LLC (HUGHES) announced that it has been certified by its independent auditor as conforming to the newest ISO 9001:2015 quality management system standards. This recognition confirms the company's ongoing commitment to quality management principles, continuous improvement, and strong customer focus in the design, manufacture, delivery and support of telecommunication services and products for its consumer, business and government customers. The ISO 9001:2015 standard is based on a number of quality management principles including a strong customer focus, the role of top management, the process approach, and continual improvement. The standard provides guidance and tools for companies and organizations that want to ensure that their products and services consistently meet customers' requirements, and that quality is continually improved.

### **Cobham SATCOM 's New SAILOR Iridium NEXT Satcom Antenna Comes to Workboat**

November 30, 2017 - Cobham SATCOM turns its attention to the forthcoming services on the new Iridium® NEXT satcom network. A compact, rugged and innovative antenna system, SAILOR 4300 is designed to enable workboat operators to optimise communications and connectivity for operational and crew purposes, using new high-speed Iridium Certus<sup>SM</sup> services going live in Q2 next year. Iridium Certus<sup>SM</sup> is an innovative portfolio of global satellite services powered by Iridium® NEXT, a ground-breaking second-generation L-band global satellite constellation established to deliver an uncompromising solution for the future of global maritime communications. The SAILOR 4300 is a Broadband Core Transceiver (BCX) type terminal, offering a highly reliable link to the Iridium® NEXT satellite network with speeds suitable for data-heavy applications on Iridium Certus<sup>SM</sup> services including; videoconferencing, multi-user Internet/VPN, IoT and telemedicine, alongside regular usage including email, electronic forms/reporting and crew communication.

### **Intelsat General Successfully Measures Signal Interference Mitigation on Intelsat Epic<sup>NG</sup> Network**

November 30, 2017 - Intelsat General, a wholly owned subsidiary of Intelsat released a whitepaper detailing interference mitigation on the Intelsat Epic<sup>NG</sup> platform. The whitepaper validates the ability of the Intelsat Epic<sup>NG</sup> platform to mitigate attempts by adversaries to intentionally interfere with signals operating on Intelsat's multi-spot, high frequency reuse, high-throughput satellites. During the validation process, technicians transmitted an interference signal on the same channel used to transmit the video. Once the interference was detected, technicians were able to reconfigure the satellite and the remote terminal thereby re-establishing video transmissions.

### **Guatemala's Comnet Leverages SES Networks' Platform to Deliver High-performance Connectivity**

November 30, 2017 - Comnet, one of Guatemala's leading service providers, is the first to tap into the newly-launched SES Networks Enterprise+ Broadband for Latin America to enable the delivery of Quantum, a high-performance next-generation broadband service, to its end customers spanning the agricultural, tourism and mining industries. SES announced that in the multi-year contract Comnet will utilise the carrier-class managed services platform on the SES-10 satellite to extend reliable connectivity to underserved communities. The turnkey broadband multi-tenant platform is underpinned by SES's comprehensive and high-performance fleet coverage over Latin America, an extensive global teleport infrastructure, and iDirect's ground system capabilities. By using Enterprise+ Broadband, Comnet can customise and flexibly manage connectivity for each customer.

## BROADCASTING

### **Irdeto Extends Security Partnership with Foxtel**

November 14, 2017 - Irdeto, a leader in digital platform security, has extended its long-standing security partnership with Foxtel, Australia's leading pay TV operator. With Irdeto, Foxtel has a reliable and stable security partner that will ensure premium content is securely delivered across any device, minimizing revenue leakage from all forms of piracy. The company announced that Irdeto Cloaked CA will now securely deliver content through Foxtel's latest fleet of set-top boxes (STBs). In addition, Irdeto also secures the distribution of content across devices supported by Foxtel's streaming service, Foxtel Now. This deal further extends Foxtel's long-standing security relationship with Irdeto, which also includes a robust content distribution technology strategy.

### **Trinity Broadcasting Network Recommits to the Intelsat Galaxy Fleet**

November 15, 2017 - Intelsat and long-time customer Trinity Broadcasting Network (TBN) signed a multi-year agreement to distribute high definition (HD) and standard definition programming to cable head-ends throughout North America. Under the previously announced agreement, TBN, America's most-watched faith channel, will reach more than 100 million households in the United States through Intelsat's highly penetrated Galaxy 14 video neighborhood. Galaxy 14 distributes more than 200 channels in North America, with close to 100 channels in HD. TBN's programming will seamlessly transition to a next-generation Galaxy satellite at the same orbital location over the span of the long-term contract.

### **ProSiebenSat.1 Continues Transmission in SD via Astra 19.2 Degrees East**

November 15, 2017 - German viewers will continue to have access to all ProSiebenSat.1 free-to-air channels in SD quality via SES's prime orbital slot at 19.2 degrees East. Under the multi-year renewal agreement, SES will provide satellite capacity for the unencrypted transmission of the channels ProSieben, Sat.1, kabel eins, sixx, Sat.1 GOLD, ProSieben MAXX and kabel eins Doku, as well as the regional programmes of Sat.1 in Bavaria and North Rhine-Westphalia. The contract also includes additional technical services from the SES's subsidiary MX1, a global solution provider of media services.

### **Tricolor TV and Eutelsat launch Territoria Tricolor**

November 15, 2017 - Tricolor TV, Russia's leading TV operator and one of the leading TV operators in Europe, is taking a further step in audience expansion with an innovative service called Territoria Tricolor, launched in partnership with Eutelsat Communications. The new satellite-based service enables consumers in hotels, airports, rail stations and other public venues to have free WiFi access to TV channels on their mobile devices without consuming their mobile data allowance. Operators of public venues will be able to organise free access to an offer of 50 Tricolor TV channels. The service is also available to owners of cafés, medical surgeries, petrol stations and other commercial outlets, enabling them to enhance their relationship with customers who can benefit from a high-quality viewing experience on their mobile devices for the short periods they spend on site. Territoria Tricolor is available for enterprise customers in the footprint of the EUTELSAT 36C satellite that covers the European part of the Russian Federation.

### **Sun Direct Deploys India's First All-IP HEVC DTH Delivery Workflow with Harmonic**

November 15, 2017 - Harmonic announced that Sun Direct, an Indian direct-to-home (DTH) satellite television provider with more than 12 million subscribers, has deployed a Harmonic software-based HEVC media processing solution within its all-IP workflow in order to expand its HD service offering. Harmonic's Electra™ X2 encoder and ProStream® multiplexer enable Sun Direct to deliver an additional 80 HD channels from four transponders to subscribers, with crystal-clear video quality at the lowest possible bitrates.

### **TV Plus Renews Commitment for Satellite Distribution Services on Intelsat 19**

November 19, 2017 - Intelsat has confirmed a multi-year satellite services agreement on Intelsat 19 with TV Plus, a Direct-to-Home television provider servicing diverse communities in Australia. Under the previously referenced renewal agreement, TV Plus will use Ku-band satellite services on Intelsat 19 to deliver global content to local viewers in Australia and New Zealand. Located at 166° East, Intelsat 19 is a premier video neighborhood, reaching more than 37 million pay-tv subscribers. Intelsat is a leading DTH provider in the Asia-Pacific region, distributing content for media customers in Australia, Fiji, Papua New Guinea, French Polynesia and New Caledonia.

### **Intelsat and TV Catarina Bring Premier Regional Programming to Brazil via Intelsat 14**

November 20, 2017 - Intelsat has announced that Brazilian regional television broadcaster, TV Catarina, is the latest television programmer to join Intelsat 14, the company's new video neighborhood covering the Latin America region. Under the previously announced multi-year agreement, TV Catarina will use C-band satellite services on Intelsat 14 in Santa Catarina, a state in southern Brazil, to support the distribution of television programming to UHF retransmission sites. TV Catarina is a TV Bandeirantes affiliate, and one of the main regional broadcasters in Brazil. Intelsat 14, located at 315° East, expands Intelsat's media distribution leadership in the region, joining Intelsat 11, Intelsat 21 and Intelsat 34 – content owners' premier choice for distributing top-tier sports, entertainment, news, and education programming to more than 93 million viewers. Intelsat currently delivers 77 of the 100 most watched channels in the region.

### **Residents of Timor-Leste's Capital to Enjoy Complimentary Wi-Fi in Public Spaces via SES Networks**

November 22, 2017 - Residents of Timor-Leste's capital, Dili, will enjoy complimentary high-speed Wi-Fi connectivity in various public spaces across the capital, including the President Nicolau Lobato International Airport, Timor Plaza mall and Largo de Lecidere square, through a trial service delivered by Timor Telecom (TT), the largest telecommunications operator in the country. By using the connectivity enabled by SES Networks' fibre-like connectivity, TT aims to ensure that everyone will have the right to broadband access and information. SES announced that with the provision of enhanced Wi-Fi connectivity in Dili, TT and SES Networks will continue to empower local communities in Timor-Leste with access to faster mobile data and broadband connectivity, meeting the evolving and fast-growing connectivity needs of Timor-Leste residents.

### **Fijian Government Selects EUTELSAT 172B for Providing Universal Television Access**

November 23, 2017 - Walesi, the Fijian Government's Digital Television infrastructure management company, has signed a multi-year agreement with Eutelsat Communications that will for the first time expand free-to-air television throughout Fiji. The agreement covers C-band capacity on the EUTELSAT 172B satellite to complement terrestrial coverage of the Walesi digital television platform. Eutelsat's new, all-electric satellite, now in full commercial service, will allow Walesi to provide digital free-to-air television via a Direct-to-Home (DTH) platform that will serve even the most remote, deep rural, and maritime areas of Fiji located beyond range of terrestrial networks. The platform will initially provide access to six digital free-to-air channels - with capacity to further expand - that will be accessible via a set-top box. Walesi will announce details regarding the DTH roll-out and Government-subsidised boxes in the coming weeks.

### **AMTEL-SVYAZ Launches DVB-S2X Network over iDirect Platform**

November 30, 2017 - VT iDirect, Inc. (iDirect) announced that AMTEL-SVYAZ Company will launch the first iDirect DVB-S2X network in Russia, utilizing the iQ Series of remotes. The network is expected to operate on up to five geostationary satellites, providing coverage over the Russian Federation and parts of the adjacent seas and oceans, delivering cost-effective connectivity throughout the Russia region. AMTEL-SVYAZ will leverage their iDirect network to offer high-speed connectivity to a wide range of enterprise markets, such as Energy, Banking, Oil and Gas, and Maritime. This launch also enables the company to expand their territory and allows flexible pricing for their customers. iDirect's next-generation DVB-S2X technology delivers revolutionary gains in performance and efficiencies, and will enable AMTEL-SVYAZ to scale their network efficiently and cost effectively. The iQ Desktop remotes are designed to meet the needs of networks within a wide range of performance scenarios and software licensing features, all based on a future-proof software-upgradeable design.

## LAUNCH / SPACE

### **China, France Plan to Launch First Joint Oceanic Satellite in 2018**

November 1, 2017 - The first satellite jointly developed by the Chinese and French space agencies will be launched from China in the second half of 2018. The China-French Oceanic Satellite is being tested in a Beijing-based assembly testing center of the China National Space Administration. The 700-kilogram satellite will be primarily used for waves forecast and monitoring, as well as research in floating ice, polar glacier and ocean dynamics. The satellite will carry a wave-scatterometer spectrometer developed by the French space agency and a wind-measurement scatterometer by Chinese scientists. It will be sent into space by a Chinese Long March carrier rocket.



### **China Launches Two BeiDou-3 Navigation Satellites on Single Carrier Rocket**

November 5, 2017 - China launched two BeiDou-3 satellites into space via a single carrier rocket to support its global navigation and positioning network. The satellites were aboard a Long March-3B carrier rocket which took off from Xichang Satellite Launch Center in the southwestern province of Sichuan. This is the first two BeiDou-3 satellites launched by China, as its self-developed BeiDou Navigation Satellite System officially began to expand into a global network. Named after the Chinese term for the plough or the Big Dipper constellation, the BeiDou project was formally initiated in 1994. It began to serve China in 2000 and the Asia-Pacific region at the end of 2012. China plans to building BeiDou into a global positioning and navigation system by around 2020, making it the third country in the world after the United States and Russia to operate its own navigation system.

### **Arianespace Orbits the “Mohammed VI – A” Satellite for Morocco**

November 7, 2017 - Arianespace has successfully launched the MOHAMMED VI – A satellite dedicated for Earth observation for the Kingdom of Morocco. The satellite was developed by the consortium comprising Thales Alenia Space as system prime contractor and Airbus as co-prime. The MOHAMMED VI – A satellite will be used in particular for mapping and land surveying activities, regional development, agricultural monitoring, the prevention and management of natural disasters, monitoring changes in the environment and desertification. Thales Alenia Space, as system prime contractor, supplied the payload, including the optical instrument, the image transmission subsystem, and the ground segment for image processing and production. Airbus, as satellite prime contractor, was in charge of its integration, as well as supplying the platform and the ground segment for mission planning and satellite control.

### **Thales Alenia Space Wins Another Contract for Ariane 6**

November 7, 2017 - Thales Alenia Space has signed a contract with SABCA, prime contractor for the three Thrust Vector Actuation Systems (TVAS) on the new Ariane 6 launcher, to develop and supply control electronics for nozzle steering. ArianeGroup is prime contractor for Ariane 6 on behalf of the European Space Agency (ESA). This latest contract follows another already signed with ArianeGroup that places Thales Alenia Space in charge of developing the Ariane 6 range safeguard system. Thales Alenia Space will also take full responsibility for designing and building the electronics that form the core of the Ariane 6 range safeguard system. The company provides other range safeguard system components that are shared with Ariane 5, Vega and Soyuz.

### **Airbus to Build Türksat 5A and 5B Satellites**

November 9, 2017 - A contract for two new generation communications satellites was signed by Türksat with Airbus Defence and Space. The satellites, Türksat 5A and Türksat 5B, are based on the latest Electric Orbit Raising (EOR) version of Airbus' highly reliable Eurostar E3000 platform, which uses electric propulsion for in-orbit raising and station-keeping. Türksat 5A is a broadcast satellite which will operate in Ku-band at the 31° East longitude slot in geostationary orbit, covering Turkey, the Middle East, Europe, North Africa and South Africa. The spacecraft will have a launch mass of 3,500 kg and electrical power of 12 kW. It is planned for in-orbit delivery in 2020. Türksat 5B is a broadband satellite which will operate in Ku- and Ka-bands at the 42° East longitude slot in geostationary orbit. Its HTS (High Throughput Satellite) payload will provide more than 50 Gbps of capacity over a wide coverage including Turkey, the Middle East and large regions of Africa. The spacecraft will have a launch mass of 4,500 kg and electrical power of 15 kW. It is planned for in-orbit delivery in 2021.

### **Airbus Signs In Orbit Demonstration Contract with ESA**

November 9, 2017 - Airbus Defence and Space has signed a contract with the European Space Agency (ESA) for an in-orbit demonstrator within the frame of ESA's Advanced Research in Telecommunications Systems (ARTES) Pioneer programme. The in-orbit project (known as IODA – In Orbit Demonstrator by Airbus) will develop the key elements including infrastructure (spacecraft, payload and ground segment), launch a first satellite and validate the entire system in a multi-mission scenario. The final objective for the IODA is to offer a one-stop-shop service for In Orbit validation and/or Proof of Concept (whether technology or service based), in a real operational environment leading to a greatly improved prospect of market take-up.

### **Thales Alenia Space Signs Contract with the UK Space Agency to Work on Climate Change Mission**

November 9, 2017 - A UK company has been selected to undertake the Assembly Integration and Test (AIT) for a satellite which will help tackle climate change. Thales Alenia Space has signed a contract with the UK Space Agency to work on MicroCarb, a joint UK-French satellite mission which will measure sources and

sinks of carbon, the principal greenhouse gas driving global warming. It is the first European mission intended to characterise greenhouse gas fluxes on Earth's surface and gauge how much carbon is being absorbed by oceans and forests, the main sinks on the planet.

#### **Airbus Receives Go-ahead for Twin GRACE-FO Satellites**

November 10, 2017 - After a successful year-long test campaign by Airbus at IABG in Ottobrunn near Munich, the twin GRACE-FO (Gravity Recovery and Climate Experiment Follow-On) satellites will soon travel to their launch site in California. The project is a partnership between NASA's Jet Propulsion Laboratory, located in Pasadena, California, together with the German Research Centre for Geosciences (GFZ, Potsdam). Both GRACE-FO research satellites will be launched into a polar orbit at an altitude of around 500 km and at a distance of 220 km apart. Both satellites will then take continuous, very precise measurements of the distance variations between each other and make monthly maps of the changes in Earth's gravitational field, which are used to track the monthly movement of liquid water, ice and the solid Earth. The launch of the GRACE-FO twin satellites is planned for spring 2018 on a mission planned to last at least five years.

#### **Orbital ATK Successfully Launches Eighth Cargo Delivery Mission to the International Space Station**

November 12, 2017 - Orbital ATK successfully launched its Antares rocket carrying a Cygnus spacecraft from NASA's Wallops Flight Facility in Wallops Island, Virginia. The launch is Orbital ATK's eighth cargo delivery mission to the International Space Station for NASA. During the mission, designated OA-8, Cygnus will deliver vital equipment, supplies and experiments to the astronauts aboard the space station, as well as conduct scientific experiments onboard Cygnus while docked with the orbiting laboratory. The Antares rocket launched the Cygnus spacecraft loaded with approximately 7,400 pounds (3,350 kilograms) of cargo to the crew of six who are aboard the space station.

#### **Sierra Nevada Corporation's Dream Chaser Spacecraft Conducts Successful Free-flight Test**

November 13, 2017 - Sierra Nevada Corporation (SNC) announces a successful atmospheric Free-Flight test of its Dream Chaser spacecraft, signaling the program is another achievement closer to orbital operations. The full-scale Dream Chaser test vehicle was lifted from a Columbia Helicopters Model 234-UT Chinook helicopter on Saturday, released and flew a pre-planned flight path ending with an autonomous landing on Runway 22L at Edwards Air Force Base, California. The first orbital vehicle is scheduled to go to the International Space Station as soon as 2020 for at least six missions as part of NASA's Commercial Resupply Services 2 contract (CRS2). The missions will supply astronauts with much needed supplies and technical support elements and enable the gentle return of scientific experiments. The test vehicle was originally developed under the Commercial Crew Integrated Capabilities agreement (CCiCap).

#### **Thales Alenia Space to Supply the Telemetry Transmitter for Ariane 6 Launcher**

November 14, 2017 - Thales Alenia Space has signed a contract with ArianeGroup, prime contractor and design authority of Ariane 6, to design, develop, qualify and manufacture the telemetry transmitter of the new European launcher. The telemetry transmitter is responsible for transmitting to the ground the data generated by the launcher throughout the whole launch mission. It is the first contract of the company in Spain in the launchers segment. After three decades of activity in the space sector participating in more than 400 satellites, probes and spacecraft put into orbit, the company expands its comprehensive product portfolio in Spain in the field of space communications with a new generation equipment adapted to very demanding requirements from the customer, in a highly competitive environment, which has driven to adopt an innovative design using the most advanced manufacturing technologies. The launcher will be developed in two versions: Ariane 62, with two solid propellant strap-on boosters and Ariane 64, with four solid-propellant strap-on boosters. The maiden launch of Ariane 6 is planned in 2020.

#### **SSTL to Build UrtheCast's UrtheDaily Constellation**

November 14, 2017 - A signed contract for the Earth Observation satellites for the UrtheDaily Constellation was announced by Surrey Satellite Technology Ltd (SSTL) and UrtheCast of Canada. The UrtheDaily Constellation, planned for launch in 2020, will be capable of scientific-grade quality, multispectral imagery, high-resolution, targeted specifically at geanalytics applications. The UrtheDaily spacecraft are based on the SSTL-250 platform and will be built by SSTL at its facilities in Guildford UK. The spacecraft will deliver high-resolution imagery using spectral bands, which have been specifically selected to match Landsat-8, Sentinel-2, RapidEye and Deimos-1 bands to ease cross-calibration with trusted references and to minimise the effects of atmospheric variations.

### **SSL to Conduct Power and Propulsion Study for NASA's Deep Space Gateway Concept**

November 15, 2017 - SSL has been selected by NASA to conduct a four-month study for a module that will provide power and control for NASA's deep space gateway concept. The gateway will be a human crew-tended spaceport in lunar orbit that functions as an access point to the Moon and deep space. The power and propulsion element (PPE), which will be the first gateway module launched, will serve as a building block to provide all power, manoeuvring, attitude control, communications systems, and initial docking capabilities for the gateway. The SSL design for the PPE is expected to demonstrate the value and reliability of the company's spacecraft capabilities, which includes a long track record of success in power and propulsion systems, and more commercial satellites operating in geostationary orbit today than from any other manufacturer.

### **Thales Alenia Space's Radar Sounder Chosen for JUICE Mission to Explore Jupiter's Icy Moons**

November 15, 2017 - Thales Alenia Space has been chosen by the Italian space agency ASI to develop an instrument called RIME (Radar sounder for Icy Moons Exploration) for the JUICE (JUperiter Icy moons Explorer) mission, part of the European Space Agency's "2015-25 Cosmic Vision" program. Scheduled for launch in 2022 with an expected arrival in 2029, the JUICE mission is designed to study the Jovian system and more specifically its icy moons, Ganymede, Callisto and Europa. As the archetype for the giant planets of the Solar System, Jupiter and its moons are key to understanding the emergence of life. Thales Alenia Space is responsible for the development, design and testing of RIME, one of 10 instruments on the JUICE spacecraft. This radar instrument is considered a key to mission success, because of its ability to directly identify and map the internal structure of the ice layers.

### **China Launches New Meteorological Satellite**

November 16, 2017 - China launched a new meteorological satellite, Fengyun-3D from the Taiyuan Satellite Launch Center in northern China's Shanxi Province. A Long March-4C rocket carried the satellite into space. Fengyun-3D is one of China's second generation of Polar-Orbiting Meteorological Satellites, which can provide global three dimensional all-weather and multi-spectral remote sensing images. The satellite will form a network with the Fengyun-3C satellite, which was launched into space in September 2013, to improve the accuracy of atmospheric sounding and enhance the monitoring of greenhouse gases. The network will help China's disaster relief work. The Fengyun-3D satellite and the Long March-4C rocket were developed by Shanghai Academy of Spaceflight Technology under China Aerospace Science and Technology Corporation.

### **U.S. Navy Accepts Fifth Lockheed Martin-built MUOS Satellite for Global Military Cellular Network**

November 16, 2017 - The U.S. Navy's Communications Satellite Program Office, PMW 146, and Lockheed Martin handed over full operational control of the fifth Mobile User Objective System (MUOS) satellite to the Naval Satellite Operations Center (NAVSOC). The October 11 milestone followed the successful completion of the MUOS-5 satellite's on-orbit testing and delivery of all operational products needed to "fly" the satellite. In April, the Navy, working with Army Forces Strategic Command (ARSTRAT), configured one of MUOS-5's two communications payloads – its legacy Ultra High Frequency (UHF) payload – for testing. The handover of this satellite to NAVSOC clears the final hurdle allowing for ARSTRAT to provide the payload's final configurations to support the Navy's legacy UHF satellite communications mission.

### **China Successfully Launches Three Commercial Remote Sensing Satellites**

November 21, 2017 - China successfully launched Jilin-1 04, Jilin-1 05 and Jilin-1 06 Remote Sensing Satellites into the predetermined orbit by Long March-6 launch vehicle from the Taiyuan Satellite Launch Center (TSLC). This is the second mission of LM-6 launch vehicle as well as the 255th flight of the Long March Family, which is also the first time for China Great Wall Industry Corporation (CGWIC) to conduct a commercial dedicated launch for the domestic customer. As part of China's next generation of non-toxic and pollution-free launch vehicle, LM-6 is a three-stage liquid-propellant launch vehicle featuring by its fast launch capability. It is designed to meet the demands for small-load missions and can be applied to dedicated launch, cluster launch, constellation networking and complement missions. The three high-resolution optical remote sensing satellites are developed and operated by Chang Guang Satellite Technology Co., Ltd based in Jilin Province, China, being part of the Jilin-1 satellite constellation which will be used for wide imaging, video imaging and multispectral imaging to serve administrations and commercial customers. There will be 8 operational satellites in orbit by adding the three ones, which enhances the system service capability.

### **Earth-i Orders Satellites from SSTL for World's First Full-Colour Video Constellation**

November 21, 2017 - British 'New Space' pioneer Earth-i today announced that it has ordered the first five satellites from SSTL (Surrey Satellite Technology Ltd) for its new Earth Observation (EO) constellation. Earth-i is building the first constellation in the world able to provide full-colour video – and the first European-owned constellation able to provide both video and still images. The creation of Earth-i's constellation starts with the imminent launch of its preproduction prototype satellite which was also designed and manufactured in partnership with SSTL. This prototype will demonstrate and prove technology and processes for the future constellation including tasking, data downlinks to ground stations, image quality and video from space. The five SSTL satellites ordered today are planned to be launched in 2019.

### **SSTL and ASTROSCALE Team up for Orbital Debris Removal Missions**

November 21, 2017 - ASTROSCALE and Surrey Satellite Technology Ltd (SSTL) have signed a Memorandum of Understanding to pursue joint opportunities in areas of innovative on-orbit technologies and missions designed to safeguard the orbital environment for future generations. ASTROSCALE and SSTL have agreed to long-term strategic cooperation that further positions the companies to compete globally in the growing small satellite and orbital debris removal markets. Together the companies will seek to identify ambitious debris removal projects and joint offerings for competitive small satellite missions in Japan. As a first step, ASTROSCALE has contracted SSTL to supply a "Target" satellite and avionics for its inaugural End-of-Life Service by ASTROSCALE-demonstration (ELSA-d) mission, which will simulate capture of orbital debris and is designed to validate key technologies for end-of-life spacecraft retrieval and disposal services.

### **Soyuz Failure Results in Loss of First Telesat Phase 1 LEO Satellite**

November 28, 2017 - Telesat learned that the Soyuz 2 launch vehicle that was to place 19 spacecraft into orbit, including Telesat's first Phase 1 LEO satellite, has failed. Notwithstanding this failure, Telesat's plans to develop a state-of-the-art, high capacity LEO constellation that will deliver transformative, low latency, fiber-like broadband to commercial and government users worldwide, remain on track. A second Phase 1 LEO satellite is scheduled for launch in the coming weeks on ISRO's Polar Satellite Launch Vehicle (PSLV) from the Sriharikota launch site.

### **Thales Alenia Space Signs with ESA the Space Rider Preliminary Development Contract**

November 30, 2017 - Thales Alenia Space with ELV as co-contractor has signed a contract with the European Space Agency (ESA) for the engineering and preliminary development of the automated reusable Space Rider transportation system, designed for deployment by the new Vega C light launcher into low Earth orbit (LEO). The goal of Space Rider is to provide Europe with an affordable, independent, reusable end-to-end integrated space transportation system for unmanned missions and for routine access and return from low orbit. It will be used to transport a variety of payloads into different LEO altitudes and inclinations.

## EXECUTIVE MOVES

### **Newtec Appoints Steve Mills as Global VP Sales**

November 2, 2017 - Newtec – a specialist in designing, developing and manufacturing equipment and technologies for satellite communications – announced it has appointed Steve Mills to the position of Global VP Sales, as it continues to record year-on-year growth of 10 to 20%. The addition of Mills to the Newtec management team demonstrates the company's continued expansion, with its latest results showing increased revenue across its core markets of broadcast, consumer and enterprise VSAT and GovDef, fueled by High Throughput Satellite (HTS) deployments. Prior to joining Newtec, Mills was Head of Global Sales and Marketing, Secure Communications, at Airbus Defence and Space where he gained extensive experience in the government and defense market, among others. This role followed four years at Inmarsat as the Senior Director in Global Government.

### **Gerry O'Sullivan Joins Eutelsat as Executive Vice President, Global TV and Video**

November 15, 2017 - Eutelsat Communications has appointed Gerry O'Sullivan as Executive Vice President, Global TV and Video. In his new role he will drive the product development strategy that ensures that Eutelsat continues to offer customers the most innovative video services across its global footprint. Gerry is an international media executive with extensive experience of commercial, marketing, operational and technical strategies for leading broadcasters and system operators, including the BBC, BSkyB, Deutsche Telekom, Digicel, Fox News and ABC. His executive positions at BSkyB from 2000 to 2010 include Director



of Strategic Product Management, responsible for innovations that include the launch of Sky+ HD and Video on Demand services. From 2011 to 2013 he was Senior Vice President Global TV and Entertainment at Deutsche Telekom to develop its global media business. Most recently, at Digicel Group, he devised strategies on cloud-based multi-screen consumer propositions and steered the launch of IPTV across the Caribbean.

#### **Stuart Bird Commences at Optus as Managing Director, Wholesale and Satellite**

November 21, 2017 - Optus has announced that Stuart Bird, whose appointment was announced in May, has now joined Optus' Executive Leadership Team in the role of Managing Director, Wholesale and Satellite. Bird brings more than twelve years' experience in the telecommunications sector to Optus, including senior executive positions at Telstra and Vodafone. He will be responsible for leading all parts of the Optus Wholesale and Satellite division with a focus on delivering profitable growth from these market leading businesses. His responsibilities will also include expanding Optus' wholesale nbn offering, delivering a competitive suite of mobile products and services for our wholesale partners, and expanding Optus' satellite partnerships and customer base.

#### **Avanti Appoints Toby Robinson as Chief Commercial Officer**

November 27, 2017 - Avanti Communications Group plc announced the appointment of a Chief Commercial Officer, Toby Robinson, who joins from Eaton Towers, the towers and masts business operating across Africa. Robinson was group Chief Commercial Officer and a member of the start-up management team at Eaton Towers which has grown to 5000 towers across Africa. He was responsible for the acquisition and management all the towers in the network, handling negotiations with Bharti Airtel and Orange in the acquisitions programme. He also dealt with key customers in the region, including Vodafone, MTN, Etisalat, Google and Africell. Before joining Eaton Towers, Robinson was a TMT specialist consultant at Arthur Andersen, Mercator and OC&C Strategy.

#### **SSTL Appoints Sarah Parker as Managing Director**

November 27, 2017 - The Board of Surrey Satellite Technology Ltd (SSTL) has announced that Sarah Parker has been formally appointed as Managing Director, a role she has been performing in an interim capacity since March 2017. Sarah Parker joined the Board of Directors in 1999 with responsibilities for corporate strategy and finance and has helped steer the business over a 20 year period to achieve international success and a £100m turnover.

#### **Speedcast Announces Executive Management Changes**

November 28, 2017 - Speedcast International announced two changes to its executive management team. Keith Johnson, currently EVP of Speedcast's Energy Division, will take over from David Kagan as chief operating officer, while also keeping his existing Energy Division responsibilities. Kagan will be leaving Speedcast in early December due to personal and family commitments, but will remain as an advisor to the CEO on a limited-time basis. Johnson joined Speedcast in 2014 after spending over 20 years at Harris CapRock Communications, where he held numerous senior operational roles, including heading global operations and business unit leadership roles. Erwan Emilian has joined Speedcast to lead the Enterprise & Emerging Markets division. Emilian comes to Speedcast from IEC Telecom Group, where he served for 10 years as CEO. Prior to this, Emilian held executive positions at several high-tech startups and Fortune 500 companies. He replaces Andrew Burdall who left the company to pursue another opportunity.

#### **Louis Boswell Appointed CEO of CASBAA**

November 30, 2017 - Louis Boswell, senior media and digital business leader in Asia, has been appointed Chief Executive Officer, CASBAA. Boswell will begin his tenure on 1 January 2018, succeeding outgoing CEO Christopher Slaughter. Boswell's background in Asia includes senior positions at Discovery, ESPN Star Sports, BBC, AETN All Asia Networks and, most recently, as the General Manager, Asia for Da Vinci. His experience includes leading businesses in Japan, Korea, Hong Kong, Singapore, Taiwan and all of the major markets in Southeast Asia.

## REPORTS

#### **NSR Report Finds VSAT & Broadband Satellite Market Recovery on the Horizon**

November 15, 2017 - NSR's VSAT and Broadband Satellite Markets 16th Edition report found an industry

primed for growth again after several challenging years. NSR forecasts the entire installed base for fixed VSATs to reach 17.8 million active sites by 2026, generating over \$25.6 billion in annual service revenues. In the Fixed Enterprise VSAT market, overall prospects are improving. After several very difficult years where macroeconomic pressures and competition deteriorated market conditions, the industry is expanding again. Market elasticity is finally unlocking verticals like Cellular Backhaul, which will generate 3 of every 4 new dollars in Capacity Revenues.

## UPCOMING EVENTS

**CABSAT 2018**, 14-16 January 2018, Dubai, UAE, [www.cabsat.com/apsc](http://www.cabsat.com/apsc)

CABSAT is the dominant broadcast, digital media and satellite communications technology platform for anyone wishing to target broadcasters, production houses and studios, animation houses, content owners and creators, software developers, telcos, systems integrators and distribution channels in the MEASA region. If you're in the business of Content Creation, Broadcast, Satellite, Music, Radio, Film make sure you're at CABSAT 2018.

**PTC'18**, 21-24 January 2018, Honolulu, Hawaii, USA, [www.ptc.org/ptc18/](http://www.ptc.org/ptc18/)

**Global Space & Technology Convention 2018 (GSTC 2018)**, 1-2 February 2018, Singapore, [www.space.org.sg](http://www.space.org.sg)

**ABU Digital Broadcasting Symposium 2018**, 5-8 March 2018, Kuala Lumpur, Malaysia, [www.abu.org.my/dbsymposium](http://www.abu.org.my/dbsymposium)

**Convergence India 2018**, 7-9 March 2018, New Delhi, India, [www.convergenceindia.org](http://www.convergenceindia.org)  
Convergence India is the only platform in India which demonstrates convergence of technologies in Telecom, IT, Broadcast & Digital media sectors. The three-day exhibition and concurrent conference sessions provides an excellent networking opportunity for speakers, visitors and delegates. This platform attracts high quality exhibitors to showcase their expertise and identify the thriving business opportunities in India.

**Satellite 2018**, 12-15 March 2018, Washington DC, USA, [www.satshow.com](http://www.satshow.com)

**Telecoms World Asia 2018**, 19-20 March 2018, Bangkok, Thailand, [www.terrapinn.com/conference/telecoms-world-asia/](http://www.terrapinn.com/conference/telecoms-world-asia/)

**MilSatCom Asia-Pacific 2018**, 14-15 May 2018, Singapore, [www.smi-online.co.uk/defence/asia/milsatcom-asia](http://www.smi-online.co.uk/defence/asia/milsatcom-asia)

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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).