

APSCC Monthly e-Newsletter

NOVEMBER 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.apsc.or.kr/sub4_5.asp. To unsubscribe, send an email to info@apsc.or.kr with a title "Unsubscribe."

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

INSIDE APSCC

The APSCC 2017 Conference & Exhibition Marks Another Great Success!

The APSCC 2017 Satellite Conference & Exhibition successfully ended on 12 October 2017 in Tokyo after 3 days of in-depth conference sessions, state-of-the-art technology displayed exhibition, and diverse networking events with more than 400 delegates attending the event. At APSCC 2017, thought leaders covered major issues impacting the Asia-Pacific satellite industry, including market insight on the latest trends, new applications, and innovative technical solutions throughout the three-day roundtable discussions and presentation sessions. The APSCC 2018 Satellite Conference & Exhibition will be held on 9-11 October in Jakarta, Indonesia.

The APSCC-ISU Youth Development Workshop

The second APSCC-ISU Youth Development Workshop was successfully held concurrently with the APSCC 2017 event on October 12. The workshop provided a platform for the brightest up-and-coming engineering students and young professionals in Japan to connect with leading satellite and space industry experts and learn more about the opportunities in the sector. A facility visit to the SKY Perfect JSAT's satellite control center in Yokohama provided the students with a deeper understanding of the industry through field experience.

2017 APSCC Awards

Each year, APSCC recognizes outstanding individuals through the APSCC Awards to honor industry veterans for their collaboration, guidance and support in helping APSCC reach its mission as well as for their contribution to the satellite industry. At 2017 APSCC Awards Ceremony held on 10 October, APSCC awarded 'Lifetime Achievement Award' to Shinji Takada, President & CEO, SKY Perfect JSAT for his outstanding achievements and named Dr. Cheng Guangren, Executive Director & President, APT Satellite as 'Satellite Executive of the Year in the Asia-Pacific' for his achievements and contributions to the satellite industry in the Asia-Pacific Region, and by taking the lead to enhance the satellite industry.

2017 APSCC Young Talents Awards

The APSCC Young Talent Award is the latest initiative of APSCC to ensure a healthy future for the satellite industry and to attract and retain young talent to the satellite and space industries in Asia-Pacific region. 2017 APSCC Young Talent Awards' 4 Finalists were Qinglong Cui, Product Engineer, APT Satellite; Ali Akhtar, Head of Commercial, Satellite Services, Supernet; Atsushi Ayuta, Service Operations Engineer, SKY Perfect JSAT; Thilini Bandare, Director, Legal and Regulatory Affairs, APAC, Speedcast. Ali Akhtar of Supernet was selected as the winner of the Young Talent Award on October 12 at the APSCC 2017 Satellite Conference & Exhibition, in Tokyo Japan. The winner received the scholarship to enroll the Southern Hemisphere Space Studies Program of International Space University (ISU).

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/

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
Speaker: Gregg Daffner, CEO, Gapsat; President, APSCC
Mark Dankberg, CEO, ViaSat
PJ Beylier, CEO, Speedcast
Stuart Daughtridge, SVP, Kratos

APSCC members can enjoy discounted rate when PTC'18 registration.

SATELLITE BUSINESS

Hughes Launches Consumer Satellite Internet Service in Colombia

October 2, 2017 - Hughes Network Systems, LLC announced the launch of HughesNet[®] high-speed satellite Internet service in Colombia beginning on September 28, the company's second international deployment of its award-winning consumer service beyond North America. Operating over the EchoStar XIX high-throughput satellite (HTS) – with the world's highest capacity at over 200 Gbps – HughesNet service coverage reaches 75 percent of Colombia's population, bringing the many benefits of affordable broadband Internet access to consumers and businesses either unserved or underserved by terrestrial broadband. Hughes pioneered satellite Internet service for the mass market and this launch in Colombia builds upon its successful operations in North America and Brazil – with, to date, over 1 million subscribers, making it the world's largest high-speed satellite network. With this launch, HughesNet service is available now to more than 214 million people in South America.

IsoTropic Networks Selects VT iDirect For Next-Generation VSAT Offering

October 4, 2017 - iDirect, Inc. announced that IsoTropic Networks will upgrade all of its iDirect Evolution[®]-only line cards to Universal Line Cards, which have the capability to run both Evolution and Velocity networks and support the new iDirect iQ series remotes. The technology upgrade provides the infrastructure foundation for IsoTropic to launch next-generation services and prepares them for future customer requirements. IsoTropic Networks is a specialized leader in the Very Small Aperture Terminal (VSAT) market, delivering highly responsive and cost-effective services to enterprise, maritime, and oil and gas industries. The network upgrade is in response to escalating customer demand for bandwidth and scalability, and enables IsoTropic Networks to increase support for real-time, data-intensive applications across its growing customer base.

Intelsat and Intel Propose Market-based Mechanism for Clearing 5G Spectrum Bands

October 5, 2017 - In a move that will be watched closely by Australian mobile carriers and satellite operators, global satellite provider Intelsat has teamed up with Intel on a joint proposal that would open up parts of the C-band spectrum for new 5G mobile services. In a submission to a US Federal Communications Commission inquiry seeking to expand access to mid-band spectrum for 5G, the two companies argued that satellite providers could voluntarily clear parts of the band and then enter into market-based agreements with mobile players for use of the spectrum. While acknowledging that the proposal would still cause pain for satellite operators, the two companies said it had the advantage of fully compensating satellite providers, reducing interference issues and putting the spectrum to its highest value use. Intelsat and Intel made their proposal in relation to terrestrial use in the 3700-4200 MHz downlink portion of the conventional C-band. The Australian Communications and Media Authority has recently kicked off a consultation on the adjacent 3.6GHz band, covering 3575–3700 MHz, but is yet to consult on the more widely used 3700-4200 MHz bands in Australia.

MDA Completes Acquisition of DigitalGlobe

October 5, 2017 - MacDonald, Dettwiler and Associates (MDA) completed its acquisition of DigitalGlobe, the global leader in high resolution Earth imagery and information about our changing planet. The merger creates the leading integrated commercial provider of satellites, imagery and geospatial solutions to commercial and government customers worldwide. The newly combined company will offer a broader set of space-based solutions, increased scale and a more diversified revenue base. The Company also announced that MDA will become Maxar Technologies Ltd., and its U.S.-headquartered operating company, SSL MDA Holdings, Inc., will become Maxar Technologies Holdings Inc. The new Maxar Technologies launches a distinctive group of leading space brands, technologies and capabilities.

Kymeta and Sky Perfect JSAT Demonstrate Kymeta's KyTrek 3 for On-the-Move Connectivity

October 9, 2017 - Kymeta and Sky Perfect JSAT Corporation (SJC) have successfully completed the first Asia-based satellite connectivity deployment of Kymeta mTenna technology. The implementation combined satellite capacity through the J5A SJC satellite with Kymeta's flat panel, electronically-steered mTennau7 antenna

subsystem module (ASM) to demonstrate the ability to provide uninterrupted, reliable connectivity on the move, and where terrestrial networks are unavailable. During KyTrek 3 across Japan, a Kymeta mTennau7 ASM was embedded between the roof and the headliner of a Toyota Land Cruiser. The vehicle then demonstrated continuous on-the-move connectivity that can be utilized to ensure first responders can communicate on the way to a natural disaster, when cellular networks may become compromised, as well as while they move around the disaster zone.

Atech, Brazil Chose ND SatCom's SKYWAN for a New ATC Network

October 9, 2017 - The Atech Corporation, a subsidiary of the Embraer group in Brazil with local presences in several countries, is deploying a new Arkhe Command & Control solution in a foreign country using ND SatCom's SKYWAN satellite routers. This specific project gives Atech new opportunities for expanding its Arkhe solutions whenever satellite interconnection is needed. Winning arguments in a fierce competition were: the leading-edge SKYWAN 5G technology and long-term experience in realizing communication networks and a most competitive offering. The SKYWAN 7000/1070 product family has the link encryption feature, which was a mandatory requirement for this project. The new Arkhe Command & Control solution comprises a central station (hub), remote sites with fixed and transportable antennas. The project has started and is now ready for Phase 1 installation; the complete network shall go into service early 2018.

Cobham SATCOM and Avionica to Provide Inmarsat's SwiftBroadband-Safety to Business Jet Market

October 9, 2017 - Cobham SATCOM, the leading manufacturer of satellite communications solutions, and Avionica, the leading aircraft data collection and data transmission manufacturer, have joined forces to provide the industry's smallest and lightest Inmarsat satcom solution for simultaneous cockpit and cabin communications. Providing an innovative method for segregation of safety and non-safety related voice and data connectivity over a single channel of SwiftBroadband, the complete connectivity option brings Inmarsat's SwiftBroadband-Safety (SB-S) technology platform to the business jet market. The new joint solution combines Cobham's AVIATOR 300D satcom system with Avionica's avWiFi intelligent router, enabling operators to take advantage of SB-S for FANS/CPDLC/ADC-S/ACARS/Cockpit Voice, while still benefiting from SwiftBroadband in the cabin for non-safety related voice and data use.

SES GS to Provide More MEO-enabled SATCOM Solutions for U.S. Government

October 9, 2017 - SES announced that its wholly owned subsidiary, SES Government Solutions (SES GS), has won several key contracts to provide critically important managed network services leveraging SES's unique high throughput, low latency Medium Earth Orbit (MEO) O3b satellite network capabilities. By the end of 2017, SES GS will be delivering nearly 4 Gigabits per second of managed O3b services supporting 13 sites globally to customers ranging from the Department of Defense (DoD) to the National Oceanic and Atmospheric Administration (NOAA). The U.S. Government (USG) has already deployed and integrated MEO-enabled solutions to multiple locations worldwide. These locations utilize the distinctive and unique performance parameters offered by the O3b-enabled solution. USG customers have leveraged SES's MEO capabilities to satisfy requirements that vary from niche services, such as large file transfer or backhaul of "big data", to providing backbone services to support an entire enterprise. The low latency features of SES's MEO-enabled network are also important as they enable the USG to take advantage of cloud-based applications.

Thuraya Joins Hands with GulfSat in New Partnership

October 10, 2017 - Thuraya Telecommunications Company announced the signing of a partnership with satellite communications company, GulfSat at the ongoing OPV (Offshore Patrol Vessels) event in Kuwait. This strategic alliance will enable GulfSat to launch data services in Kuwait. The partnership allows the companies to combine interests and increase both their distribution channels among government, maritime, media and enterprise sectors in the surrounding region. Established in 1995, GulfSat, a subsidiary of United Networks, a member of Kuwait Projects Company (KIPCO Group), has risen to be a prominent provider of satellite communications, satellite broadcasting and managed telecommunications solutions. The new agreement gives Thuraya – for the first time – a data service presence in Kuwait, and enhanced broadcasting capabilities, backed by GulfSat's media broadcasting influence and forte. Meanwhile, GulfSat can look forward to furthering their service capabilities over land and sea in the Middle East and North Africa region via Thuraya's range of data products.

CMMB Vision Launches New Application for Connected-car Multimedia App "Xingyun"

October 10, 2017 - CMMB Vision Holdings Limited (CMMB Vision) announced the launch of its connected-car multimedia App "XingYun", which is a user service interface software supporting the access and management of the multimedia enabled by M-Box device solution which have been installed in Chinese cars with auto-partners for

trial in China. The App comes both in in-car device version or mobile device version. Users downloading such App can freely abundant multimedia content via screen-touch or voice-control in the vehicle. The XingYun App signifies the completion of the Company's end-to-end multimedia technology platform development and a significant step toward commercial services.

Speedcast to Provide O3b MEO Ka-band Services for Land-based Production Platform in West Africa

October 11, 2017 - Speedcast International Limited has been selected to provide Middle Earth Orbit (MEO) Ka-band managed communications services to a production asset owned and operated by a major U.S.-based operator in Equatorial Guinea on Bioko Island, off the coast of West Africa. Speedcast will leverage satellite Very Small Aperture Terminal (VSAT) connectivity to deliver communications between the production asset and the customer's corporate network. The new MEO Ka-band service will be delivered in partnership with O3b, and will replace the company's existing backup VSAT service, delivering low latency communications and improving operational efficiency. The network will be supported by Speedcast's 24/7 year-round global customer service centers, with local field engineers in the region to provide fast, reliable support at all times. Speedcast is currently supporting this site by providing manpower services for VSAT service and microwave link maintenance as well as IT desktop and LAN support, and will continue to do so for the new contract as well.

Comtech Receives \$6.5 Million Contract to Support the BFT-2 Program

October 11, 2017 - during its first quarter of fiscal 2018, its Government Solutions segment's Command and Control Technologies group through its Maryland-based subsidiary, Comtech Mobile Datacom Corporation, was awarded a Firm Fixed Price (FFP) \$6.5 million contract from the Consortium Management Group (CMG) to support the U.S. Army Project Manager Mission Command (PM MC) and the Blue Force Tracking 2 (BFT2) program. Phase 1 execution which totals \$1.2 million is to port additional waveforms onto the current BFT2 transceiver to allow it to be used in austere operational environments. The final objective requires the ability to quickly change to different waveforms based on changing operational environments and requirements. Upon phase 2 and 3 execution, the total value for these additional phases is \$5.3 million. The \$6.5 million contract is expected to be completed within seventeen months.

Thaicom Provides Continued Support for Distance Learning via Satellite

October 11, 2017 - Thaicom PLC, led by Teerayuth Boonchote, Acting Chief Technical Officer, presented Anusorn Foocharoen, secretary of the Thai Distance Learning Foundation (DLF) with a donation to help fund the foundation's work of making educational opportunities accessible to people throughout Thailand. Thaicom continually supports the foundation's project to provide distance learning via satellite under His Majesty King Bhumibol Adulyadej's initiative to provide children, youth, and all Thai people with equal access to educational opportunities. The Event was held on October 5, 2017 at the DLF's office at Ministry of Education.

Optus Satellite and Southern Phones Partner to Bring nbn Sky Muster Services to Regional Australians

October 12, 2017 - Optus Satellite and Southern Phones have partnered together to deliver nbn™ Sky Muster™ enabled broadband services to people living in regional areas of Australia. The partnership signals the first nbn™ Sky Muster™ market offering from Optus Satellite, with Southern Phones acting as partner of choice and providing sales and marketing support. The NBN satellite services, which are available now, are focused on ensuring customers living in regional areas have access to an affordable and reliable broadband connection.

ST Engineering's Aerospace Arm Streamlines its Entities

October 12, 2017 - Singapore Technologies Engineering Ltd (ST Engineering) announced that its aerospace arm, Singapore Technologies Aerospace Ltd (ST Aerospace), has streamlined its entities through a short-form amalgamation under Section 215D of the Singapore Companies Act. With effect on 1 September 2017, ST Aerospace Rotables Pte Ltd (STA Rotables) is amalgamated with ST Aerospace Supplies Pte Ltd (STA Supplies), which is the surviving entity after the amalgamation. The notice of amalgamation has been received from the Accounting and Corporate Regulatory Authority. Business will continue seamlessly with STA Supplies as a subsidiary of ST Aerospace. This exercise is a result of ongoing business reviews to streamline and synergize capabilities, and to consolidate resources within the aerospace sector, and is not expected to have any material impact on the consolidated net tangible assets per share and earnings per share of ST Engineering for the current financial year.

Eutelsat Acquires NOORSAT to Consolidate its Presence in Middle East

October 13, 2017 - Eutelsat Communications has acquired NOORSAT, one of the leading satellite service providers in the Middle East, from Bahrain's Orbit Holding Group. Established in 2004, NOORSAT is the premier

distributor of Eutelsat capacity in the Middle East, serving blue-chip customers and providing services for over 300 TV channels almost exclusively from Eutelsat's market-leading Middle East and North Africa neighbourhoods at 7/8° West and 25.5° East. The acquisition of NOORSAT fits with Eutelsat's broader strategy of streamlining distribution within selected core video neighbourhoods where it can create value. It will allow Eutelsat to strengthen the long term commercial development of its market-leading video positions in the Arabic world and increase its direct access to end-customers, facilitating stimulation of High Definition TV take-up and the upselling of incremental video services. Eutelsat has acquired 100% of NOORSAT for a consideration of US\$75 million, debt free and cash free. The acquisition will add upwards of US\$15 million to Eutelsat's consolidated revenues on an annualized basis after the elimination of the capacity leased by Eutelsat from NOORSAT. Its slightly dilutive impact on Eutelsat's EBITDA margin will be absorbed within the current margin objectives.

GATR Technologies to Support New Zealand Defence Force

October 16, 2017 - Cubic Corporation announced that GATR Technologies, a subsidiary which operates within the Cubic Mission Solutions (CMS) business division, was awarded an order worth more than \$5 million to provide satellite communication (SATCOM) solutions for the New Zealand Defence Force (NZDF). Cubic will supply 2.4-meter inflatable satellite antennas with supporting hardware, spares and New Equipment Training (NET) for the NZDF Network Enabled Army (NEA) program. In addition to a multi-year support contract, Cubic will deliver and integrate an iDirect-based, time division multiple access (TDMA) network within the NZDF's existing and future hub infrastructure. The NEA program improves the NZDF's ability to support deployed land forces by enhancing its battlefield's command and control system, communications and intelligence surveillance and reconnaissance (C4ISR) sensor systems.

Sprint Expands Gilat Contract to a Three-Year Multi-Million Dollar Managed Service Project

October 16, 2017 - Gilat Satellite Networks Ltd., a worldwide leader in satellite networking technology, solutions and services, announced that Sprint has expanded its contract with Gilat to include a three-year managed service project. This multi-million dollar project includes services and technology to enable Sprint to expand its network coverage. Gilat will provide both services and the equipment to operate Sprint's 3G & LTE networks in selected areas for cellular backhaul and other applications. Gilat will deliver services to remote cell sites over a three-year period with an optional extension, to support Sprint's network coverage and expansion plans.

SES Networks and CompuDyne Enhance Mobile Broadband Services in Malaysia

October 17, 2017 - CompuDyne, a leading telecommunications solutions provider in Malaysia, is partnering with SES Networks to bring high quality and cost-effective cellular backhaul service to both East and West Malaysia and its surrounding islands. SES announced that CompuDyne has signed a multi-year, multi-transponder agreement to lease Ku-band capacity on SES-9, SES's largest satellite dedicated to serve Asia-Pacific, for its customer Digi, the country's leading mobile network operator. Making a shift from a C-band to Ku-band system, CompuDyne can now deliver more cost-effective and reliable satellite connectivity, enabling Digi to extend its cellular network to underserved consumers residing in rural areas and in the far reaches of Malaysia. At the same time, Digi also plans to use the capacity to introduce mobile broadband services and packages for an increasingly connected population.

Mackay Communications and Inmarsat's Fleet Xpress Partnership

October 17, 2017 - Mackay Communications Inc., a worldwide marine electronics and airtime service provider, announced that it has signed a Partner agreement with Inmarsat to distribute its award-winning Fleet Xpress service to the global maritime market including deep sea vessels, commercial fishing, oil and gas, defense, and cruise-passenger lines. Mackay will offer a complete end-to-end Fleet Xpress package including the full range of Fleet Xpress airtime service options and choice of approved antennas. The partnership will also include a global 24/7 installation and service agreement; leveraging Mackay's technical expertise to support the rapidly growing installation and conversion opportunities for Fleet Xpress systems in ports worldwide. Combining Inmarsat's cutting-edge technology with Mackay's extensive marine and offshore customer base, solution-focus integration expertise, and worldwide service, is a powerful formula to enhance the adoption of Inmarsat's Fleet Xpress service.

Hughes to Offer Telecommunications Services and Solutions to Federal Agencies through Level 3

October 17, 2017 - Hughes Network Systems, LLC announced that its telecommunications products and services will be offered under the General Service Administration's (GSA) Enterprise Infrastructure Solutions (EIS) contract through the award to Level 3 Communications. As a sub-contractor to Level 3, Hughes is offering the comprehensive suite of HughesON™ Managed Network Services for multi-site agencies and departments. The

portfolio of HughesON managed services can help agencies meet modernization challenges head-on with substantial benefits such as cloud readiness and high network and application performance and availability. By introducing managed broadband in conjunction with existing MPLS infrastructure, agencies can realize immediate benefits in the form of a "hybrid" wide area network (WAN). HughesON includes a compelling managed SD-WAN solution with innovative broadband optimization tools known as ActiveTechnologies™.

TELEC Certifies Intellian's GX100 and GX60 Terminals

October 18, 2017 - Intellian, the world's leading provider of maritime satellite antenna systems, announced the successful certification of its GX100 and GX60 Inmarsat FX terminals by TELEC, the leading radio equipment certification and testing body in Japan. When using terminal equipment across a Japanese telecommunications carrier network, the user is required to take the telecommunications carrier's connectivity test to verify whether the terminal conforms to standards set by Japan's Telecommunications Business Act. As the digitalisation evolution continues to gather pace, this certification from TELEC provides Intellian's clients with the confidence and assurance of improved communication speeds and connectivity, reduced opex, and enhanced data transmission.

SES Networks Works with Project Loon to Restore Connectivity in Puerto Rico

October 23, 2017 - SES Networks' high throughput and fibre-like satellite connectivity service, the stratospheric balloons operated by X, Alphabet's self-described "moonshot factory", and local telecommunications expertise are playing a key role in restoring 4G/LTE connectivity in disaster-affected Puerto Rico, SES announced. The connectivity is powered by Project Loon's targeted cell coverage and SES Networks' O3b FastConnect, a rapidly deployable satellite terminal delivering fibre-like performance. Together with local technology partners, SES Networks and X are providing reliable high-performance connectivity to Puerto Ricans whose lives have been devastated by the hurricane Maria and who have limited means of communication.

Newtec Boosts Banking and Backhaul in Mozambique

October 24, 2017 - Newtec announced its Newtec Dialog® multiservice platform is being used by publicly-owned telecommunications specialist Teledata for hundreds of mobile backhaul (2G, 3G) and banking application sites across Mozambique. The Newtec Dialog platform, with a HUB 4IF Hub Module at its core, will power Teledata's cellular backhaul network using Newtec Dialog modems (MDM3310 Satellite Modem). The platform is also connecting hundreds of ATMs using Newtec's MDM2500 IP Satellite Modem at the remote sites, as well as providing back-up connectivity to improve higher reliability for the regional bank branches. Teledata chose the platform due to its multiservice capabilities and scalability which enable Teledata to serve numerous markets via one platform. Additionally, the jitter and quality of service performances by Newtec Dialog allow Teledata to provide a very high quality backhaul service. The simple and cost-effective migration from existing technology to the Newtec Dialog platform was also a key factor.

Intelsat Supports Hurricane Disaster Relief and Recovery Operations

October 24, 2017 - Intelsat S.A. announced its support of multiple organizations providing relief services in the Caribbean as well as helping local and U.S. businesses recover from the three hurricanes that devastated the regions. Beginning in late August and lasting through most of September, Hurricanes Harvey, Irma and Maria created widespread destruction across many island nations in the Caribbean as well as the southern United States. The storms left businesses and thousands of residents without basic necessities, and the loss of communications services has disrupted national and local economics and hampered the efforts of relief organizations trying to help residents recover and begin rebuilding.

Hyundai Merchant Marine Selects Intellian VSAT Antennas

October 24, 2017 - Intellian, the world's leading provider of maritime satellite antenna systems, announced that Hyundai Merchant Marine (HMM), a leading global logistics company, has selected its VSAT antennas to be installed across its fleet of container ships. Intellian was chosen as the satellite communications antenna provider following comprehensive evaluation of the market's available products and services. As the market leader in VSAT antenna systems, Intellian will partner with leading global service providers to deliver high-speed and reliable connectivity to HMM's vessels. Through reliable satellite communications connectivity, HMM's container ships will have access to the data they need to realize increased profitability, improved operational efficiency, and enhanced crew welfare. Following installation HMM will also be supported by Intellian's global technical support network from more than 40 major ports worldwide. Applying a smart approach to data management and communication through partnering with a knowledgeable and innovative satellite communications solutions provider will allow operators to drive significant improvements in operational efficiency, without taking on the associated risks of cost, reliability, and downtime.

SKY Perfect JSAT Hosts Ground Station Owned by Spire

October 25, 2017 - SKY Perfect JSAT Corporation (SJC) announced that SJC signed ground station hosting services with Spire Global, Inc. Spire is a space-to-cloud data analytics company that offers data & analytics that deliver insights into the parts of the world where collecting data is notoriously difficult. Spire's satellites excel in covering areas of ships, planes, and weather in remote regions, and its products are unmatched in empowering users to take advantage of this unique data. SJC will drive its satellite business in not only geo stationary orbit market but also low earth orbit market. One of SJC's low earth orbit satellite businesses is ground station service and SJC's ground station services for low earth orbit satellites will start with two approaches: one is to host the customer's antenna in the facilities of SJC and/or SJC's partners, and the other is to provide the customer with the services by the antenna owned by SJC. Under this agreement, SJC would be happy to host Spire's antenna and be honored to become Spire's first partner in Japan. With the ever-growing demand to move large quantities of data quickly and securely around the world, SJC will aggressively participate in low earth orbit satellite market.

Honeywell's Connected Aircraft Hardware Certified To Bring High-Bandwidth Wi-Fi To Helicopters

October 25, 2017 - Honeywell was awarded a Federal Aviation Administration (FAA) supplemental type certificate (STC) for the Aspire 200 satellite communications system on the Airbus Helicopters AS350 and Sikorsky UH-60 Blackhawk and have applied for an FAA STC for the Bell 429, while Transport Canada has certified the system on the Bell 429. The European Aviation Safety Agency (EASA) approvals for those helicopters are also underway. In addition, EASA recently approved the installation of the Aspire 200 system on the Leonardo AW139 helicopter. Honeywell's system provides reliable connectivity service for helicopters, enabling constant communication, even when in remote areas. The Aspire 200 system, combined with the SwiftBroadband High-Data Rate (HDR) software package, brings high-bandwidth connectivity to the helicopter cabin for the first time while allowing the pilot or operator to mitigate any signal connectivity issues.

Singtel Launches Global Software-Defined Network Solution for Enterprises

October 25, 2017 - Singtel announced the launch of its new network solution – Singtel Managed Software-Defined Branch (Singtel SD Branch) to support enterprises' evolving networking needs across the globe. Highly scalable and cost-efficient through a "white box" or generic hardware, Singtel SD Branch empowers enterprises in managing multiple and virtualized network functions at their existing sites or when they expand into new branch offices. With Singtel SD Branch, enterprises are assured of enhanced security and optimal performance of their networks and applications. They can better monitor network usage and issues real-time. Enterprises can also add new functions, such as unified threat management, to the same hardware without incurring additional installation charges. These will in turn reduce their capital and operating expenditures.

Speedcast Launches Speedcast TV On Demand™ to Enhance Onboard Passenger and Crew Experience

October 25, 2017 - Speedcast International Limited announced the release of its newest value added service for the Cruise, Ferry, Commercial Maritime and Energy industries, Speedcast TV On Demand™. The solution allows passengers and crew to access a wide range of entertainment and information onboard any commercial vessel, cruise ship, ferry or offshore rig, and promises a simple user interface, installation, and programming. Speedcast TV On Demand is comprised of a small set-top box that offers instant access to a large library of movies, TV shows, sports, news, games, music and informational content, and can be updated using a cloud-based login at any time. Speedcast TV On Demand also allows administrators to upload exclusive video content used for passenger and crew information, training, and safety. Speedcast TV On Demand is one component of the new Speedcast Media Network™, set to launch additional applications in coming months to enhance onboard entertainment and media content delivery and reliability.

Inmarsat and Deutsche Telekom Demonstrate European Aviation Network Satellite and Ground Integration in Flight

October 26, 2017 – Inmarsat and Deutsche Telekom have successfully completed the first flight trials to test both the satellite and complementary ground network for their European Aviation Network (EAN) service. EAN is the world's first dedicated aviation solution to combine space and ground based components to deliver robust, ultra-lightweight, high-speed inflight broadband to airlines. The recent flights demonstrated that EAN meets its design performance in practice; a significant milestone for the project consortium, as well as European airlines and their passengers. Inmarsat and Deutsche Telekom conducted the evaluation with partners Cobham, Thales and Nokia using a CESSNA 550 Citation II provided by Dutch company NLR. The aircraft was flown across Germany, Belgium, France and Spain, covering approximately 5,000 km of European airspace, to test integration of the Mobile Satellite Services (MSS) and Complementary Ground Component (CGC) terminals. Further flight trials are scheduled over the coming weeks.

UAE Companies Achieve Regional First with In-Flight Connectivity Test of 50 Mbps

October 30, 2017 - Yahsat announced the successful trial of a 50Mbps in-flight connection that will change the way passengers experience air travel across the world. The result of a unique partnership between Yahsat, du, Etihad Airways Engineering, Hughes Network Systems and Carlisle Interconnect, the high-speed broadband offering will be available for airlines to offer its passengers within the next year. Using Yahsat's Al Yah 2 satellite, and the latest generation Ka-band technology, the test took place in Abu Dhabi, simulating the environment found on an Airbus A320 aircraft. This new level of performance for in-flight connectivity (IFC) will mean passengers have an in-flight browsing experience similar to the service available in their home or office, including access to HD streaming content, social media, online shopping and the ability to connect with friends and family via messaging apps.

Comtech Launches CYBRScore Cyber Defense Analyst Skills Assessment Tool

October 30, 2017 - Comtech Telecommunications Corp. announced that its Command & Control Technologies group, which is part of Comtech's Government Solutions segment, has launched its third CYBRScore™ Skills Assessment work role using the knowledge, skills and abilities defined in the National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework (NCWF). In today's rapidly evolving cybersecurity threat environment, the awareness and knowledge of employees is essential to protect critical enterprise infrastructure; however, few organizations are able to quantitatively measure the skills of their key personnel responsible for cybersecurity protection. CYBRScore™, the new cyber skills assessment tool from Comtech, provides quantitative metrics on cybersecurity job role skills.

mu Space Signs Teleport Deal with CAT Telecom

October 31, 2017 - Thai satellite operator mu Space Corp reveals the signing of a deal to lease teleport services from state-owned company CAT Telecom. The agreement will enable mu Space to provide satellite broadband and mobile services to government projects, enterprises, and telcos in Thailand. CAT Telecom is a leading provider of international telecommunications services in Thailand. The company owns teleport hubs in three provinces: Chonburi, Ubol Ratchathani, and Nonthaburi. Last month, mu Space had signed an agreement with Thai government agency Digital Economy Promotion Agency (DEPA) to support build Thailand's first Digital Park, a technology hub with a super-fast broadband infrastructure, submarine cable station, data center, and satellite earth station. The park will be built on a 960,000 sqm land in Chonburi where CAT Telecom's teleport and satellite control center are also located. mu Space is planning to launch in 2021 its own geostationary satellite. It targets to provide nationwide connectivity in all places in Thailand, as well as in Asia-Pacific and Africa. mu Space had signed a deal with Blue Origin last month to use its rocket New Glenn for the satellite launch.

SES Networks and CETel Provide End-to-end Connectivity for Telco in Africa

October 31, 2017 - A major European telecom operator will bring connectivity to new areas across North and West Africa and enable contingency services during fiber outages using a satellite-based solution. The network is implemented by CETel, a German provider of global end-to-end communications solutions, in partnership with SES Networks, who will deliver C-band capacity on SES's NSS-7 satellite. The new highly-reliable and resilient network consists of several sites located in African countries, which are connected to the customer's European backbone infrastructure via CETel's teleport and managed Multiprotocol Label Switching (MPLS) Network.

Gilat Selected for Managed Service Cellular Backhaul Project in Latin America

October 31, 2017 - Gilat Satellite Networks Ltd. awarded by a major Telecom Service Provider in Latin America full responsibility to deliver and operate satellite-based LTE backhaul, for the purpose of delivering high-performance broadband to multiple locations. Gilat was chosen for this end-to-end managed services project due to its proven expertise with LTE satellite backhaul deployments at tier-1 mobile network operators and its managed services capabilities being executed around the globe. The project was awarded following excellent results in extensive acceptance tests performed by the customer. The project includes Gilat's technology and services, as well as 24x7 network operation and management via Gilat's global Network Operation Center (NOC).

KVH Launches New High-speed Maritime Network on Intelsat Epic Satellites

October 31, 2017 - KVH Industries, Inc. announced the launch of its next-generation, advanced maritime broadband network, joined by service partner, Intelsat S.A. Slated for commercial availability next month, KVH's high-speed overlay to its current mini-VSAT BroadbandSM 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^{NG} satellite services and the award-winning IntelsatOne Flex platform, a global managed service designed to optimize bandwidth allocations and provide

flexible coverage where it is needed. KVH's mini-VSAT Broadband network is also expected to benefit from increased Asian satellite capacity from SKY Perfect JSAT.

BROADCASTING

Arabsat & BBC Arabic Announced the Renewal of Agreement

October 4, 2017 - BBC Arabic television – the BBC's news and information channel in the Arabic language & Arabsat -the leading satellite operator in the Middle East & North Africa announce the long term renewal of their agreement on Arabsat BADR-4 at 26°E which covers the entire MENA region and most of Western Europe. The service will continue to be offered on the frequency on Arabsat BADR-4 among many other leading international and regional News channels, which can be received through the Middle East, North Africa & Europe with the minimum receive dish size.

Arabsat Empowers Next Generation Satellite TV Distribution in Saudi Arabia

October 6, 2017 - With an 86% reach of satellite TV households in the Kingdom of Saudi Arabia (KSA), Arabsat is now gearing up to offer the next generation video and connectivity experience to viewers. A recent analysis by Frost & Sullivan, global research and consulting company finds that Arabsat, one of the world's leading satellite operators, reaches 86% of satellite TV households in the Kingdom of Saudi Arabia (KSA) and nearly 78% in GCC, including Bahrain, Kuwait, KSA, Oman, Qatar, and UAE. Arabsat, carries over 500 TV channels, 200 radio stations, pay TV networks and a wide variety of HD channels reaching nearly 4 million households in GCC. Operating six satellites at 3 orbital positions, the operator offers the youngest regional fleet with widespread coverage over the region.

Bentley Walker to Go Live with DVB-S2X Network Using iDirect's iQ Desktop Remote

October 6, 2016 - Bentley Walker, the largest supplier and operator of VSAT Networks outside of North America, has launched a live DVB-S2X satellite service leveraging iDirect's iQ Desktop and iDX 4.0 software. Bentley Walker will deploy the new service in the Middle East with capacity from Avanti's HYLAS 2 Ka-band satellite. The DVB-S2X-based service will target a range of end users including consumer markets, small-to-medium enterprises, large corporate companies, Wi-Fi hotspots and military organizations. iDirect's DVB-S2X technology allows Bentley Walker to leverage the benefits of Avanti's HTS Ka-band capacity, supporting MODCODs up to 256APSK, to significantly increase network efficiency and performance. The iQ remote supports a high number of traffic sessions and delivers over 100 Mbps for a high-quality, cost-effective solution. Furthermore, with the software-defined iQ remote, Bentley Walker can adapt its service to future customer requirements by licensing additional throughput and networking capabilities.

AsiaSat Broadcasts LaLiga TV on AsiaSat 5

October 10, 2017 - AsiaSat announced the addition of LaLiga TV to its strong sports channel lineup onto AsiaSat 5. LaLiga, First Division Spanish Football, will reach viewers across the Asia-Pacific through a new partnership with channel broadcaster Mediapro, LaLiga TV's official producer, and AsiaSat for Asia's most popular international satellite TV and sports content platform. It is the first time LaLiga TV launches as a 24-hour distributed TV channel in Asia Pacific offering fully scripted programming dedicated to the football competition, in full HD. Commentaries of the channel will be available in English. LaLiga will also produce its first English-language live studio show, analysing the round of fixtures ahead before the first game of each week. This new arrangement demonstrates AsiaSat 5's powerful penetration and excellent sports content neighbourhood, making it perfect for broadcasters and content owners to satisfy Asia's insatiable demand for high quality football.

Intelsat and Globecast Broaden Audience Reach for France 24 with New HD Spanish-Speaking Channel

October 12, 2017 - Intelsat S.A. announced that Globecast, a global solutions provider for media, will continue distribution of two France 24 channels and also broadcast a brand new Spanish speaking high-definition (HD) channel via Intelsat 21. Under the new, multi-year expanded agreement, Globecast will distribute three channels – English, French and Spanish-speaking – to cable operators across North America, Latin America and Canada. Globecast will leverage satellite services on Intelsat 21 – a premier video neighborhood in the Latin America region – including fiber backhaul and the IntelsatOne Multi Channel per Carrier (MCPC) platform to support content distribution and global expansion. The MCPC platform is fully integrated with IntelsatOne fiber and teleport services for quick and cost-effective development of global networks for new channel distribution. Located at 302° East, Intelsat 21 delivers premier-pan regional program distribution for the region. Intelsat currently delivers 77 of the 100 most watched channels in Latin America. Intelsat's leading cable distribution neighborhood

in Latin America is comprised of three, high-performance, fully penetrated satellites – Intelsat 11, Intelsat 21 and Intelsat 34 – carrying premium programming from around the world. Intelsat

Globecomm Introduces Vector, a Virtualized Video Headend for Delivering Hundreds of Channels across Multiple Platforms

October 12, 2017 - Globecomm announced the introduction of Vector, a virtualized video headend system able to support hundreds of channels and deliver content across multiple platforms. Vector's IP-centric platform simplifies the processing, packaging and customization of video content from acquisition and contribution to playout and distribution for delivery across DTH, OTT, IPTV, cable and terrestrial TV. It leverages Globecomm's robust satellite, IP and fiber content delivery networks and the company's extensive experience with design and integration of media infrastructure. Vector replaces the need for the traditional data center with a compact solution that significantly reduces rack space, cabling and power. Whether hosted on Globecomm's cloud network or implemented at a customer site, each system is designed with Globecomm's hallmark resiliency offering high availability.

Eurochannel Upgrades to HD at Eutelsat's Key Video Neighbourhood at 16° East

October 16, 2017 - Eurochannel, the international channel dedicated to high-quality European films and series, announced its upgrade from Standard to High Definition (HD) with Eutelsat. Already a direct customer of Eutelsat for the last five years, the channel is now expanding its capacity on the high-power EUTELSAT 16A satellite to launch its HD version for European viewers. EUTELSAT 16A is positioned at Eutelsat's 16° East key neighbourhood, a preferred location for TV distribution to terrestrial networks across Europe, from Reykjavik to Moscow and Tenerife to Tbilisi. Eurochannel is currently received by more than 70 cable and IP operators in 17 countries across Europe and will leverage EUTELSAT 16A's reach to reinforce its European distribution that recently extended to Russia, Lithuania and Croatia. The upgraded HD channel will be uplinked from Bosnia via Eutelsat's partner teleport "TEAM:MEDIA". Eurochannel is an award-winning world television channel dedicated to showing the diversity of European culture through films and series, as well as content featuring European fashion events, arts and destinations. Its move to HD underlines its commitment to meeting user expectation for an enhanced viewing experience.

Asian Content Creators and Distributors Unite to Create the Coalition Against Piracy Targeting Illicit Streaming Devices (ISDs)

October 16, 2017 - CASBAA, the leading Asian trade body serving the Pay-TV industry, announced formation of the Coalition Against Piracy (CAP), a major initiative to coordinate industry resources in the fight against rampant content theft. It also announced the appointment of Neil Gane, an industry veteran in content protection, as the General Manager of CAP. Gane will direct CAP enforcement actions to disrupt, diminish and dismantle pirate enterprises across the region. The Coalition Against Piracy includes leading video content creators and distributors in Asia. Members are: beIN Sports, CASBAA, The Walt Disney Company, Fox Networks Group, HBO Asia, NBCUniversal, Premier League, Turner Asia-Pacific, A&E Networks, Astro, BBC Worldwide, Media Partners Asia, National Basketball Association, PCCW Media, Sony Pictures Television Networks Asia, True Visions, TV5MONDE, and Viacom International Media Networks.

Advantech Wireless Demonstrates DVB-S2X over Intelsat Epic^{NG} HTS Spot Beams

October 18, 2017 - Advantech Wireless, a global leader for satellite broadband communications solutions, announced the successful implementation of DVB-S2X, with its ASAT-II System, over the Intelsat 29e Epic^{NG} High Throughput Satellite's (HTS) southern hemisphere spot beams. During a live installation and demonstration in Santiago, Chile, the national TV broadcaster TVN and the system integrator Pascom were able to demonstrate the highest bandwidth efficiency over Intelsat 29e spot beams that TVN and Pascom had ever demonstrated. Video, data and VoIP with high quality, encouragingly exhibited by an extremely high compression ratio applied on typical traffic, managed to achieve the highest seen efficiency after compression and acceleration.

QVC Makes the Leap into Ultra HD in Germany with SES Video

October 24, 2017 - QVC will bring an enhanced TV experience to its viewers with the launch of its Ultra HD channel in Germany, the seventh channel in ultra-high definition in the country, via SES's prime orbital slot 19.2 degrees East. Under the ten-year agreement announced by SES, QVC will utilize additional capacity for its upgrade to Ultra HD and rely on SES's wholly-owned subsidiary MX1 for encoding in HEVC format and uplink services. QVC is also renewing capacity for distribution of the channel in Standard and High Definition.

LAUNCH / SPACE

Thales Alenia Space to Provide X-band Transmitter for South Korea's KPLO Lunar Orbiter

October 2, 2017 - Thales Alenia Space has signed a contract with the Korea Aerospace Research Institute, KARI, to deliver the communications equipment for the Korea Pathfinder Lunar Orbiter mission (KPLO), a lunar probe scheduled for launch on December 2020. This equipment will be in charge of transmitting back to Earth the data collected by the instruments on-board the orbiter. KPLO is the first step of the Korean Lunar Exploration Program. The main objectives of KPLO are to secure the necessary basic technology for space exploration, to establish a deep space telecommunications network and to develop cutting edge technologies for specialized scientific exploration payloads. The mission will have six payloads, including a 5m high-resolution camera, a wide-field polarized camera, a magnetic field sensor, a gamma ray sensor, space internet test equipment and a ShadowCam.

Lockheed Martin Completes First Flexible Solar Array for LM 2100 Satellite

October 3, 2017 - After years of development, Lockheed Martin completed the first flight build of its new Multi-mission Modular (MM) Solar Array. This new flexible array advances Lockheed Martin's significant heritage flying flexible arrays on such programs as the International Space Station and a constellation for the U.S. Air Force. The new design is a major component of Lockheed Martin's multi-year modernization of its LM 2100 satellite bus, which is part of its newly-enhanced family of buses. The MM Array incorporates three key features in the satellite design: higher power, less mass and compact stowage, and all of this enables satellite designers to better meet customers' growing power needs. This compact flexible array design delivers 50 percent more power than previous rigid array designs at 30 percent less mass.

Third Iridium NEXT Launch Brings New Services Closer to Life

October 9, 2017 - Iridium Communications announced today the successful third launch and deployment of 10 Iridium NEXT satellites. The satellites were delivered into low-Earth orbit approximately one hour after a SpaceX Falcon 9 rocket lifted off from Vandenberg Air Force Base in California. With two successful launches having already been completed this year, this third batch of 10 satellites brings the total number of Iridium NEXT satellites in orbit to 30, nearly half the amount required for a full Iridium NEXT operational constellation. While already able to deliver fully global communications coverage, the Iridium constellation is undergoing a technological transformation. At the center of this transformation are three new capabilities; Iridium CertusSM, the company's new L-band broadband service; Aireon's space-based automatic dependent surveillance-broadcast (ADS-B) hosted-payload, that will provide real-time tracking and surveillance of all ADS-B equipped aircraft globally; and Harris Corporation and exactEarth's ship tracking service. Iridium NEXT is the company's next-generation satellite constellation, replacing and enhancing its existing network of interconnected, low-Earth orbit satellites spanning the entire globe – the largest commercial satellite constellation in space.

LM-2D Successfully Launches VRSS-2 Satellite

October 10, 2017 - On October 9, LM-2D successfully launched the 2nd Venezuelan Remote Sensing Satellite (VSRR-2) into the designated orbit from the Jiuquan Satellite Launch Center. This is the 3rd satellite which china delivered for Venezuela, following the delivery of Venezuela's 1st Communications Satellite (Venesat-1) in 2008 and the 1st Venezuelan Remote Sensing Satellite (VSRR-1) in 2012. The VSRR-2 will be used to carry out surveys on land resources, environmental protection, help with natural disaster-reduction, estimate crops yield, urban planning. China Great Wall Industry Corporation (CGWIC), a subsidiary of the China Aerospace Science and Technology Group (CASC), as the prime contractor of VSRR-2 project, have worked with its subcontractors to complete the works of design, development, testing and in-orbit delivery of the VSRR-2, and to upgrades its ground monitoring, reception, data processing and distribution systems. VSRR-2 is an optical remote sensing satellite based on the CAST2000 satellite platform, which is jointly developed by the Bolivarian Agency for Space Activities of Venezuela and the China Spacesat Co., Ltd., a subsidiary of CAST and CASC. Both parties jointly undertook the design, assembly and testing of the VSRR-2, which initiated a new mode of cooperation between the two countries.

U.S. Air Force Declares First Lockheed Martin GPS III Satellite "Available for Launch"

October 10, 2017 - Ushering in a new era of advanced Global Positioning System (GPS) technology, the U.S. Air Force declared the first Lockheed Martin-built GPS III satellite "Available for Launch." The Air Force's "AFL" declaration is the final acceptance of Lockheed Martin's first GPS III Space Vehicle (GPS III SV01) prior to its expected 2018 launch. GPS III SV01 will bring new capabilities to U.S. and allied military forces, and a new civil signal that will improve future connectivity worldwide for commercial and civilian users. GPS III SV01 now awaits

a call up to begin pre-launch preparations. In the meantime, the advanced satellite is stored in an environmentally-controlled clean room, where engineers can perform maintenance and continue to service the satellite.

DigitalGlobe Selects Raytheon as Satellite Imaging Payload Provider for WorldView Legion Constellation

October 10, 2017 - Raytheon Company was recently selected by DigitalGlobe, Inc. as the next-generation WorldView Legion satellite imaging constellation payload provider. Under the contract, Raytheon will deliver the telescopes, detectors and combined electronics to Space Systems Loral, the WorldView Legion space vehicle integrator. Raytheon's new payload doubles DigitalGlobe's capacity to capture multispectral and 30 cm imagery, while tripling to quadrupling the company's capacity to image high-demand areas. Once the WorldView Legion constellation is on orbit, DigitalGlobe's combined constellation will be able to image the most rapidly changing areas on Earth every 20 to 30 minutes, from sunup to sundown. WorldView Legion will begin launching in 2020.

MHI Successfully Launches MICHIBIKI No.4 Satellite

October 11, 2017 - Mitsubishi Heavy Industries, Ltd. (MHI) and JAXA successfully launched H-IIA Launch Vehicle No. 36 (H-IIA-F36) which encapsulates MICHIBIKI No. 4, Quasi-Zenith Satellite System; at 7:01:37a.m., 2017 (JST) from the JAXA Tanegashima Space Center. The launch and flight of H-IIA Launch Vehicle No. 36 proceeded as planned. So did the separation of MICHIBIKI No. 4, which was confirmed at approximately 28 minutes and 20 seconds after liftoff.

EchoStar 105/ SES-11 Launched on SpaceX's Falcon 9

October 12, 2017 - EchoStar 105/ SES-11 satellite was successfully launched into space on SpaceX's Falcon 9 rocket from the Kennedy Space Center in Florida. Built by Airbus, EchoStar 105/ SES-11 is a dual-mission satellite, providing SES with a C-band payload of 24 transponders of 36 MHz, owned and operated by SES, marketed under the name SES-11, and EchoStar with 24 Ku-band transponders of 36 MHz, marketed as EchoStar 105. The high-powered communications satellite replaces C-band capacity for AMC-18 and Ku-band capacity for AMC-15 at the 105 degrees West orbital slot. SES-11 is designed to accelerate the development of the US Prime video neighbourhood and the delivery of high definition (HD) and ultra-high definition (UHD) channels. It offers comprehensive coverage over North America, including Hawaii, Mexico and the Caribbean. The satellite's C-band capacity is optimized for digital television delivery, and will join SES-1 and SES-3 at the centre of SES's North American orbital arc which reaches more than 100 million TV homes and 100% penetration in the US. SES-11 will be utilized for the expansion of SES's North America Ultra HD platform, which hosts the world's largest Ultra HD bouquet of 10 Ultra HD channels and reaches a combined audience of more than 10 million subscribers.

ULA Launches NROL-52 Mission for the National Reconnaissance Office

October 15, 2017 - A United Launch Alliance (ULA) Atlas V rocket carrying a payload for the National Reconnaissance Office lifted off from Space Launch Complex-41 on Oct. 15. Designated NROL-52, the mission is in support of national security. This mission was launched aboard an Atlas V Evolved Expendable Launch Vehicle (EELV) 421 configuration vehicle, which includes a 4-meter payload fairing (PLF) and two solid rocket boosters. The Atlas booster for this mission was powered by the RD AMROSS RD-180 engine, and the Centaur upper stage was powered by the Aerojet Rocketdyne RL10C-1 engine. This is ULA's 7th launch in 2017 and the 122nd successful launch since the company was formed in December 2006.

Air Quality-Monitoring Satellite in Orbit

October 16, 2017 - The first Copernicus mission dedicated to monitoring our atmosphere, Sentinel 5P, has been launched from the Plesetsk Cosmodrome in northern Russia. The 820 kg satellite was carried into orbit on a Rockot launcher. Sentinel-5P – the P standing for Precursor – is the first Copernicus mission dedicated to monitoring our atmosphere. The mission is one of six families of dedicated missions that make up the core of Europe's Copernicus environmental monitoring network. Copernicus relies on the Sentinels and contributing missions to provide data for monitoring the environment and supporting civil security activities. Sentinel-5P carries the state-of-the-art Tropomi to do just that. Developed jointly by ESA and the Netherlands Space Office, Tropomi will map a multitude of trace gases such as nitrogen dioxide, ozone, formaldehyde, sulphur dioxide, methane, carbon monoxide and aerosols - all of which affect the air we breathe and therefore our health, and our climate.

Glonass-M Enters Service

October 17, 2017 - A new navigation satellite, Glonass-M №52, designed and built by Information Satellite Systems–Reshetnev Company, started providing positioning services. The Glonass-M №52 satellite was

launched on September 22, 2017 and already successfully completed on-orbit flight tests. It replaced another navigation satellite of the GLONASS constellation which had outperformed its designed lifespan by more than half. With Glonass-M №52 now healthy and operational in orbit, the GLONASS constellation has been replenished and now embodies 24 satellites maintaining positioning services at the required availability.

ESA Role in Europe's First All-Electric Telecom Satellite

October 17, 2017 - Europe's first all-electric telecom satellite has reached its final working orbit above the Pacific Ocean. Eutelsat-172B, built for Eutelsat by Airbus, carries new technologies developed through ESA-led projects, including fully articulated thruster arms. The satellite relied entirely on electric thrusters to climb from its initial orbit into its planned slot over the equator some 35 800 km up, and is now using them to hold position. Eutelsat-172B – the first to fly of six Eurostar E3000 all-electric platforms sold so far to telecom companies by Airbus – reached its working orbit some four months after its 2 June launch. Already a commercial success, this platform includes several innovations developed through ESA's long-running Advanced Research in Telecommunications Systems programme, as well as the equivalent Plan d'Investissements d'Avenir programme of France's CNES space agency. Improved versions of E3000's thruster arms and power unit are now included in Airbus's next-generation satellite platform, Eurostar Neo, which they are developing under ESA's Neosat programme.

Thales Alenia Space Wins Equipment Contract for ESA's Biomass Mission

October 17, 2017 - Thales Alenia Space has signed a contract with Airbus Defence and Space to develop the feed array system for the antenna on the European Space Agency's Biomass spacecraft. This equipment is essential to guarantee the full satellite performance. One of ESA's Earth Explorer missions dedicated to protect our planet, Biomass will help us understand the quantity of carbon stored in the world's forests within the global carbon cycle. Due for launch in 2021, Biomass is primarily designed to determine the distribution of biomass in the world's forests and measure annual changes. It will generate maps of forest biomass and forest height at a resolution of 200 meters and measure deforestation at a resolution of 50 meters. Biomass marks the first spaceborne exploration of the Earth's surface using a P-band radar. In addition to the primary mission goals, the data generated will be used to monitor the ionosphere, glacier and ice sheets, while also mapping subsurface geology in deserts and the topography under dense vegetation. Thales Alenia Space will provide the SAR Antenna Feed Array which radiates onto a 12m deployable reflector to generate the SAR beam.

NASA Awards SpaceX the Launch Services Contract for Sentinel-6A Mission

October 19, 2017 - NASA has selected Space Exploration Technologies (SpaceX) to provide launch services for the Sentinel-6A mission. Launch is currently targeted for November 2020, on a SpaceX Falcon 9 Full Thrust rocket from Space Launch Complex 4E at Vandenberg Air Force Base in California. The Sentinel-6A mission, also known as Jason Continuity of Service (Jason-CS), is a partnership between NASA, the National Oceanic and Atmospheric Administration (NOAA), the European Space Agency, and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). This mission provides operational ocean altimetry to provide continuity of ocean topography measurements and continues the long-term global sea surface height data record begun in 1992 by the Topography Experiment (TOPEX)/Poseidon and Jason 1, the Ocean Surface Topography Mission (OSTM)/Jason-2 and Jason-3 missions. A secondary objective of the mission is to collect high-resolution vertical profiles of temperature, using the Global Navigation Satellite System (GNSS) Radio-Occultation sounding technique, to assess temperature changes in the troposphere and stratosphere and to support numerical weather prediction.

NASA Awards Launch Services Contract for Landsat 9 Mission

October 19, 2017 - NASA has selected United Launch Services LLC (ULS) to provide launch services for the Landsat 9 mission. The mission is currently targeted for a contract launch date of June 2021, while protecting for the ability to launch as early as December 2020, on an Atlas V 401 rocket from Space Launch Complex 3E at Vandenberg Air Force Base in California. Landsat 9 is a partnership between NASA and the U.S. Geological Survey (USGS) to continue the Landsat program's critical role in monitoring, understanding, and managing the land resources needed to sustain human life. Today's increased rates of global land cover and land use change have profound consequences for weather and climate change, ecosystem function and services, carbon cycling and sequestration, resource management, the national and global economy, and human health and society. Landsat is the only U.S. satellite system designed and operated to repeatedly make multi-spectral observations of the global land surface at a moderate scale that shows both natural and human-induced change.

China and France Plan to Launch First Joint Oceanic Satellite in 2018

October 20, 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.

Myanmar to Launch its Own Satellite System MyanmarSat-2 in 2019

October 22, 2017 - Myanmar has planned to launch its own satellite system MyanmarSat-2 in June in 2019, official Global New Light of Myanmar reported. To establish state-owned satellite system, the three ways – Condosat which is to lease the use of satellite transponder of another country, joint ownership system and total ownership system – are needed to be done, Vice President U Myint Swe told a coordination meeting of the steering committee in Nay Pyi Taw. The MyanmarSat-2 will be used on joint ownership system while the MyanmarSat-1 is currently used on lease system. The project will cost about \$155.7 billion. The Vice President urged the committee to put the Indefeasible Right of Use (IRU) of the transponder as an unchangeable provision in the contract. The vice president also called on the ministries which are currently working for MyanmarSat-1 using the foreign satellite to hire Myanmar Sat-2 after their contracts with foreign firms expire.

Space Tango Announces Partnership with Airbus Defence and Space

October 26, 2017 - Airbus Defence and Space and Space Tango of Lexington, Kentucky USA have announced an agreement combining their respective commercial programs for greater utilization of the International Space Station. Airbus Defense and Space's decades of on-going and uninterrupted life and physical science experiment hardware development programs combined with the Space Tango TangoLab facilities' configurability and data interfaces will provide a unique and adept offering for research and customer-use aboard the International Space Station (ISS).

Arianespace to Launch Inmarsat's Fifth Global Xpress Satellite

October 27, 2017 - Arianespace and Inmarsat announced the signature of the launch contract for Inmarsat's Global Xpress-5 (GX-5) very high throughput communications satellite. The satellite will be orbited by an Ariane 5 heavy-lift launcher from the Guiana Space Center in Kourou, French Guiana during the second half of 2019. A very high throughput satellite (V-HTS), GX-5 will offer services covering the Middle East, Europe and the Indian sub-continent. The payload will be fully integrated into Inmarsat's current GX high-speed network. Inmarsat's GX-5 satellite is based on Thales Alenia Space's upgraded Spacebus 4000 B2 platform. GX-5 features a design life of 16 years and will weigh about four metric tons at launch, with a payload rated at approximately 6.8 kW of electrical power.

Saudi Arabia Plans \$1 Billion Investment in Virgin's Space Tourism

October 27, 2017 - Saudi Arabia will invest \$1 billion in the Virgin Group's space companies and might even add \$480 million more in the future. This investment will fund three companies within the Virgin Group, starting with Virgin Galactic, which is responsible for developing the VSS Unity (also known as SpaceShipTwo) designed to fly paying tourists to suborbital space. Part of the money will also go to The Spaceship Company and Virgin Orbit. The former manufactures Virgin Galactic's spacecraft, while the latter provides launch services for small satellites.

Launch of "SHIKISAI" (GCOM-C) and "TSUBAME" (SLATS) aboard H-IIA

October 27, 2017 - Mitsubishi Heavy Industries, Ltd. (MHI) and the Japan Aerospace Exploration Agency (JAXA) announced Global Changing Observation Mission - Climate "SHIKISAI" (GCOM-C) and Super Low Altitude Test Satellite "TSUBAME" (SLATS) will be launched on December 23, 2017 from Yoshinobu Launch Complex at the Tanegashima Space Center by H-IIA launch vehicle No. 37. H-IIA Launch vehicle No. 37 incorporates JAXA's newly developed outcome to insert SHIKISAI and TSUBAME into different orbit altitude respectively. It will expand opportunities of multiple satellite launches and take full advantage of the capability of HIIA.

Arianespace to Launch Embratel Star One D2

October 30, 2017 - Brazilian operator Embratel Star One and U.S. satellite manufacturer SSL (Space Systems Loral) have chosen Arianespace to launch the Embratel Star One D2 satellite. Arianespace announced the signature of a launch contract for the Embratel Star One D2 satellite for Brazilian operator Embratel Star One, a subsidiary of Embratel. It will be launched in 2019 by an Ariane 5 rocket from the Guiana Space Center, Europe's

Spaceport in French Guiana. Embratel Star One D2 will be positioned in geostationary orbit at 70 degrees West. Equipped with Ku-, Ka-, C- and X-band transponders, the satellite will deliver telecommunications and direct-to-home TV broadcast services in South America and North America.

SSL Wins Contract to Provide Powerful Multi-Mission Satellite to Embratel Star One

October 30, 2017 - Maxar Technologies announced that SSL, a business unit of Maxar Technologies, signed a contract to provide a powerful multi-mission communications satellite called Star One D2 to Embratel Star One. The satellite, will improve access to high quality entertainment and information services for consumers and businesses in Latin America, and expands broadband coverage to new regions, helping to provide internet access to underserved populations. It also provides an updated X-band payload for government use. Star One D2 is equipped with C-, Ku-, Ka- and X-band payloads for high-speed telecommunications, television broadcast and fast broadband in South America, Mexico, Central America, and parts of the Atlantic Ocean. It is designed to provide service for 15 years or longer and is based on the highly reliable SSL 1300 platform, which has the capability to support a broad range of applications and technology advances.

KOREASAT-5A Communications Satellite Successfully Launched

October 31, 2017 - The KOREASAT-5A communications satellite, built by Thales Alenia Space for South Korean operator KTSAT, a KT Corporation company, was successfully orbited from Cape Canaveral in Florida by SpaceX, using a Falcon 9 launcher. Based on Thales Alenia Space's upgraded Spacebus 4000B2 platform, the satellite is equipped with 36 Ku-band transponders; it weighed about 3,700 kg at launch. Positioned at 113 degrees East, it will provide Internet access, multimedia, broadcasting and fixed communications services for Indonesia, Japan, Korea, the Philippines and the Middle East. Thales Alenia Space is the prime contractor for KOREASAT-5A, in charge of its design, production and testing, as well as ground delivery. The company is also responsible for its launch campaign, the launch and early operations phase (LEOP) and in-orbit testing (IOT). KOREASAT-5A is the fourth communications satellite built by Thales Alenia Space for KTSAT, following KOREASAT-5, KOREASAT-6 and KOREASAT-7, launched in May. KOREASAT-5A is also the 35th satellite built by Thales Alenia Space as prime contractor to be launched since the beginning of the year.

Vega to Launch an Earth Observation Satellite for the Kingdom of Morocco

October 31, 2017 - For its 10th launch of the year, and the 11th Vega mission since this launcher began its career at the Guiana Space Center in 2012, Arianespace will orbit the MOHAMMED VI – A satellite. This Earth observation satellite for the Kingdom of Morocco was developed by a consortium comprising Thales Alenia Space as system prime contractor and Airbus as co-prime. Flight VV11 marks the eighth Earth observation mission for Vega, a versatile light launcher. The liftoff will be from the Vega Launch Complex (SLV) in Kourou, French Guiana (South America). The Launch Readiness Review (LRR) will take place on November 6, 2017 in Kourou, to authorize the start of operations for the final countdown.

EXECUTIVE MOVES

Former Special Operations Commander Australia to Join EM Solutions Board

October 1, 2017 - Highly decorated soldier Major General Jeff Sengelman DSC, AM, CSC is joining the Board of EM Solutions following his recent retirement from the Australian Army. Major General Sengelman served in the Australian Army for 37 years, most recently as the Special Operations Commander of Australia where he was responsible for Special Forces units such as the SAS Regiment and Commandos operating across the globe. In this position, he was the trusted senior adviser to Government and the Chief of the Defence Force on security issues of the highest national significance, and a principal adviser on Counter Terrorism.

Wilfried Urner Appointed CEO of MX1

October 3, 2017 - SES announced that Wilfried Urner has been appointed, with immediate effect, as the new Chief Executive Officer (CEO) of MX1, the SES wholly-owned global media services company. Leading SES Platform Services for many years, Urner has been instrumental in building a strong portfolio of service activities for SES Video and for HD+, the German HD platform. He was also one of the key drivers of the RR Media acquisition and the creation and integration of MX1 in 2016. He will keep his current roles in the management team of SES Video as Head of Media Platforms and Product Development, and also continue to serve as CEO of HD+. Urner succeeds Avi Cohen, who has decided to leave MX1. Cohen joined RR Media in July 2012 and supported the merger of RR Media with SES Platform Services.

WORK Microwave Appoints Eric Lossouarn as Sales Representative for the APAC Region

October 3, 2017 - WORK Microwave, a leading European manufacturer of advanced satellite communications equipment, announced that Eric Lossouarn has been assigned the title of sales representative for the Asia-Pacific (APAC) region. Lossouarn is tasked with driving WORK Microwave business in the APAC region and providing first-hand services and recommendations to customers. He will report to Thomas Froehlich, CEO at WORK Microwave. Lossouarn has more than 11 years of experience in the broadcast, satellite, and digital TV industries, with a successful history of growing international sales, penetrating new markets, and developing distribution networks within the APAC region. Eric was formerly vice president of sales in Singapore for TeamCast, where he was responsible for managing all sales operations in the APAC area, developing channel sales networks, and direct sales to satellite and terrestrial TV players. He holds two master's degrees in information systems engineering and international business.

Nippon TV Appoints Kako Kuwahara as Managing Director, IBD Division

October 6, 2017 - Currently ranked as the #1 TV broadcaster in Japan for the past three consecutive years, coupled with tremendous growth in the international division, Atsushi Hatayama, President of International Business Development (IBD), for Nippon Television Network Corporation (Nippon TV), the leading commercial broadcaster and network in Japan offering entertainment, anime, documentaries and news, announced that Kako Kuwahara, previously Associate Managing Director, has been promoted to the key role as Managing Director for the IBD division. Based in Tokyo, she will report directly to Hatayama and be responsible for overseeing all areas of IBD with the executives from IBD reporting to her.

SES Video Expands Asia-Pacific Capabilities with Two Senior Hires

October 9, 2017 - Two new senior appointments will bolster SES Video's growth strategy and enhance support for the evolving needs of video and media customers in the fast-growing Asia-Pacific video market. In an announcement by SES, SES Video has welcomed to the fold experienced industry professionals Yew Weng Soo as Vice President, Sales & Market Development and John Huddle as Director, Market Development, for Asia-Pacific. Yew Weng Soo brings more than 25 years of industry experience to his new role at SES Video, driving business strategy, commercial activities, and the creation of new, value-added solutions for customers in Asia-Pacific. Yew previously helmed media service provider Globecast's Asia business, where he assumed responsibility for setting its strategic direction and managing business development. He has held a range of senior sales, marketing and business roles with satellite operators Intelsat and Loral CyberStar, and communications solutions provider Verestar. Huddle has led regional market development and driven customer engagement strategy for satellite operator Intelsat and mobile satellite communications company Thuraya.

Entertainment One Appoints Joyce Yeung as Executive Vice President Sales, APAC

October 16, 2017 - Entertainment One (eOne) has tapped Joyce Yeung as Executive Vice President Sales, APAC, announced by Stuart Baxter, President, eOne Television International. Based in the Company's recently opened Hong Kong office and reporting to Baxter, Yeung will lead sales efforts and the Asia Pac team to drive sales across all eOne Film and TV content to broadcasters and OTT platforms across PayTV, FreeTV, SVOD and AVOD throughout the region. Yeung's appointment is part of eOne's overall expansion strategy to build and broaden relationships with new and existing clients and leverage the high growth of all content sales activity within the local markets. eOne has built an international footprint of sales offices across Europe, US, Australia, Canada, with Germany and now Hong Kong added to the growing infrastructure. In addition to Yeung, eOne recently appointed Dan Gopal as Executive Vice President, Sales to lead the EMEA sales efforts.

Matthew G. Hutchison Named Aurora COO

October 18, 2017 - Aurora Flight Sciences named Matthew G. Hutchison to be the company's Chief Operating Officer. Hutchison replaces Mark C. Cherry, who was named by Boeing as the new head of the Boeing Phantom Works. Boeing recently announced a transaction to acquire Aurora. Hutchison currently serves as Vice President for Engineering at Aurora. He joined Aurora in 1993 as an engineering analyst supporting the company's unmanned-aircraft development programs. He was instrumental in the creation of Athena Technologies, a spinout from Aurora that was sold to Rockwell Collins in 2008, and ultimately led their Unmanned Aircraft Systems and Controls Technologies business. Hutchison rejoined Aurora in 2014.

ABS Announces Leadership Transition

October 31, 2017 - ABS announced that co-founder and Chief Executive Officer, Thomas (Tom) Choi, is transitioning his role as CEO to that of Director on the Board so that he can pursue other interests and opportunities. Tom will continue to support the company as a Director on the Board and he remains a significant

investor in the business. ABS current chairman, and industry veteran of more than 30 years, Jim Frownfelter, will become interim CEO. Jim and majority owners, Permira, have commenced a search for a new CEO and intend to make an announcement in the near future.

REPORTS

\$30 Billion New Paradigm in the Space Industry with Small Satellites & Mega Constellations

October 11, 2017 - According to the 20th edition of the report *Satellites to be Built & Launched*, Euroconsult anticipates that 300 satellites with a mass over 50 kg will be launched on average each year by 2026 for government agencies and commercial organizations worldwide. This is a threefold increase over the past decade as the satellite market experiences a paradigm shift with the rise of small satellites and mega constellations, such as that of OneWeb. The 3,000 satellites over 50 kg to be launched over 2017-2026 should represent a market of \$304 billion for the space industry in terms of building and launching, an average of \$30 billion per year (up 25% over past decade). A price decrease is visible in this core market of the space industry, driven by 23 commercial constellations launching a total of 1,800 small satellites (of which about 1,000 for OneWeb) into low or medium Earth orbits for communications or Earth observation.

Satellite-Based Earth Observation, 9th Edition

October 25, 2017 - NSR's *Satellite-Based Earth Observation (EO), 9th Edition* is the industry-leading analysis of this rapidly growing global market. Starting from EO data delivered via satellite, through value-added services, information products, and insights derived from Big Data analytics, this latest NSR report offers the most comprehensive analysis of the fast growth EO markets for each vertical and region. NSR's report on EO markets offers unique analysis of 7 different vertical markets across 5 regions for 4 different instrument resolutions and two types of imagery (optical, SAR). Furthermore, NSR takes an in-depth analysis and breakdown of revenues, by instrument resolution, for each type of EO product: Data, VAS, IP, and Big Data Analytics.

Earth Observation Data & Services Market in 2016

October 26, 2017 - According to Euroconsult's report, *Satellite-Based Earth Observation, Market Prospects to 2026*, the Earth Observation (EO) data and services market should reach \$8.5 billion by 2026 based on current growth trajectories. An alternative value-added services (VAS) model also presented has a combined market potential of \$15 billion. This upside model considers the implications of new supply solutions being able to open further markets. As well, advances in artificial intelligence and deep learning are expected to benefit the sector, acting as enablers for new solutions based on change-detection analytics.

Diverging Requirements for M2M/IoT Satcom

October 30, 2017 - The M2M/IoT via satellite market has traditionally been one of low data rates, providing M2M end users with tremendous value from small data packets for the purposes of location tracking, temperature monitoring and myriad other applications. Traditionally most M2M usage has consumed very miniscule amounts of data, compared to nearly all other kinds of applications, most notably consumer broadband. Without any TCP/IP overhead required for many satellite M2M/IoT systems, most applications have traditionally used less than 100 kB per month of data traffic. However, in NSR's recently released *M2M and IoT via Satellite, 8th Edition* report, a diverging trend was identified for data requirements and latency across a range of applications, of which M2M satellite operators are modifying their product offerings to take advantage of such growing demand.

UPCOMING EVENTS

CASBAA Convention 2017, 6-8 November 2017, Macau, www.casbaaconvention.com

Global MilSatCom 2017, 7-9 November 2017, London, U.K., www.globalmilsatcom.com/APSCC

Described as "the best networking event" by its audience, SMI's 19th Global MilSatCom Conference and Exhibition will yet again raise the bar with an agenda featuring a line-up of high-level speakers and unmissable interactive opportunities offered during four days of conference sessions, workshops and networking receptions. Europe's leading military event for satellite professionals returns to London this November, gathering 500 international senior military and key industry representatives to network, benchmark, and learn about the latest

developments in SatCom technology, discuss strategies to fulfill capability gaps, and address critical military and government requirements. View full agenda and register now at www.globalmilsatcom.com/APSCC.

The 3rd Global SatShow, 8-9 November 2017, Istanbul, Turkey, www.globalsatshow.com

VSAT Congress, 14-15 November 2017, Washington, D.C., USA, www.vsatcongress.com

PITA NGN & Development Forum, 20-24 November 2017, Fiji, www.pita.org.fj

Myanmar Satellite Forum 2017, 28-30 November 2017, Yangon, Myanmar, <http://myanmarsatelliteforum.com>

CommuniCast Myanmar 2017, 28-30 November 2017, Yangon, Myanmar, <http://www.communicastmyanmar.com>

CABSAT 2018, 14-16 January 2018, Dubai, UAE, 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. [Click here to Read more](#)

Asia-Pacific Regional Space Agency Forum (APRSAF-24), 14-17 November 2017, Bengaluru, India, www.aprsaf.org

PTC'18, 21-24 January 2018, Honolulu, Hawaii, USA, www.ptc.org/ptc18/

Global Space & Technology Convention 2018 (GSTC 2018), 1-2 February 2018, Singapore, www.space.org.sg

ABU Digital Broadcasting Symposium 2018, 5-8 March 2018, Kuala Lumpur, Malaysia, www.abu.org.my/dbsymposium

Convergence India 2018, 7-9 March 2018, New Delhi, India, www.convergenceindia.org

Satellite 2018, 12-15 March 2018, Washington DC, USA, www.satshow.com

MilSatCom Asia-Pacific 2018, 14-15 May 2018, Singapore, 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.