

APSCC Monthly e-Newsletter

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

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

INSIDE APSCC

SatComm2017, 23 May, Singapore

APSCC invites you to check out how SatComm2017 is changing and impacting the world of **Future Connectivity**, how satellite will play a pivotal role in **Accelerating the Growth of M2M/IoT** and where we are at when it comes to **Next Generation Global Networks**. Gathering over 800 attendees at Asia's largest ICT Innovation festival hear from operators as well as these satellite players on how will all this pan out at the CommunicAsia2017 Summit.

23 May, SatComm:

- Keeping the Promise of HTS and its Commercial Value
- Growing the VSAT Potential: Deep-diving on Cellular Backhaul Capabilities
- Seizing Growth Opportunities in IoT and M2M Market – How will this Revamp the Role of the Satellite Industry?
- How is IP and Hybrid Networks Changing the Satellite Industry of Tomorrow?

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APSCC 2017 Satellite Conference & Exhibition, 10-12 October, Tokyo, Japan

The APSCC Satellite Conference and Exhibition is Asia's must-attend executive conference for the satellite and space industry, where business leaders come together to gain market insight, strike partnerships and conclude major deals. Celebrating its 20th annual event APSCC 2017 #SATECHexplorer will incorporate industry veterans and new players through the 3-day of in-depth conference program to reach out to a broader audience. Join APSCC 2017 and expand your business network while hearing from a broad range of thought-provoking panels and speakers representing visionary ideas and years of business experience in the industry. For more information, please visit www.apscc2017.com

SATELLITE BUSINESS

MOBILE LTE Submitted a 2300MHz Spectrum Proposal to TOT

April 3, 2017 - On 27 March 2017, MOBILE LTE Co. Ltd. has submitted the proposal of 2300 MHz spectrum beauty contest to TOT. Varayuth Yenbamroong, CEO and Co-Founder with the wireless business team states that MOBILE LTE is confident and ready to operate in 2300 MHz spectrum partnership's requirement issued by TOT with the company proposal which prepared the plan both in commercial and technical terms. MOBILE LTE also consults and has support from domestic and international experts as our strategic partners. Furthermore, Varayuth also shows that MOBILE LTE will use Satellite Technology to help improve the quality of signal and cover the rural areas in Thailand to support equality of people life and to comply with Government's policy for THAILAND 4.0. Thus, MOBILE LTE is the country's second satellite operator after the National Broadcasting and

Telecommunications Commission's telecom committee approved a license for the company which has plan to operate in Mid-2017.

Optus to Provide Satellite Capacity for Virgin Inflight Wi-Fi

April 4, 2017 - Optus Satellite has won a deal to supply capacity for Virgin Australia's proposed inflight Wi-Fi. The service will utilize technology from US inflight connectivity specialist Gogo, while satellite providers Intelsat and SES will also provide capacity on international flights. Virgin is now commencing a three-month trial of the service, using Gogo's 2Ku technology, on one of its Boeing 737-800 aircraft. The airline said the trial would be used to gather feedback from customers, with a full installation of 2Ku across its fleet of Boeing 737-800, Airbus A330 and Boeing 777 aircraft planned following the customer testing period. The technology will leverage Optus Ku-band satellites for domestic and New Zealand services, and Intelsat and SES for all other international flights. It is the first inflight Wi-Fi deal that Optus has provided capacity for. Qantas is also currently trialing its own inflight Wi-Fi service. It is using technology provided by ViaSat backed by capacity from NBN's Sky Muster satellites.

SES and Thales Unveil Next-Generation Capabilities Onboard SES-17

April 4, 2017 - SES and Thales Alenia Space (TAS) announced the addition of a powerful Digital Transparent Processor (DTP) onboard the SES-17 satellite which will allow SES to offer its mobility customers extraordinary efficiency and unrivalled flexibility in bandwidth management capabilities. SES-17's next-generation fully digital payload has been jointly optimized by SES and Thales Alenia Space over the past year, making the satellite even more attractive to customers in the highly competitive mobility market, as well as other fast growing enterprise markets. SES-17, which was procured in September 2016, will cover North America, South America, Central America, the Caribbean and the Atlantic Ocean, and is expected to be delivered in 2020. Equipped with close to 200 spot beams of mixed sizes, the fully digital SES-17 spacecraft will provide mobility customers with an unsurpassed ability to efficiently and flexibly modify their networks in real time in response to changing bandwidth demands, either on a daily schedule or in response to unanticipated changes such as weather. This harmonization of management of services and optimization of service quality will enable customers to deliver high-speed broadband in a more efficient and cost effective manner.

ViaSat Unveils 2nd Generation Mobility Equipment to Deliver Fastest Speeds from a Satellite to an Aircraft

April 4, 2017 - ViaSat Inc. unveiled its latest generation (Gen-2) in-flight internet equipment for its advanced satellite platforms: ViaSat-2 and ViaSat-3 class satellites. The Gen-2 equipment is optimized to take full advantage of the highly-anticipated massive capacity increases from the ViaSat satellites, offering airlines even faster and higher-quality in-flight internet performance. The Gen-2 equipment is designed to be forward and backward compatible across ViaSat's satellite platforms, allowing airlines to meet the growing broadband demands of the fully connected aircraft. Forward and backward compatibility ensures airlines can cost-effectively deploy the Gen-2 equipment today, and take advantage of the more than 3.5 terabits per second (Tbps) of total expected future global capacity ViaSat will be bringing to market. Gen-2 compatibility will exist across all of ViaSat's satellite platforms, which includes its first generation spacecraft (ViaSat-1, WildBlue-1, Anik F2), its second generation spacecraft (ViaSat-2) and its most advanced spacecraft (ViaSat-3). Additionally, the Gen-2 equipment is compatible with most other Ka-band satellites, giving airlines greater choice in satellite solution provider.

AsiaSat 9 in Myanmar

April 5, 2017 - In late 2017, AsiaSat will launch the world's first dedicated Myanmar beam, bringing more power and enhanced coverage to the country and a commitment to deliver the best service to all customers. With AsiaSat 9 boasting most powerful EIRP in C and Ku-Band so far and an excellent 'look angle', to not only meet the demands of industrial and business connectivity for the likes of Mining, Oil and Gas, and Banking, but also to offer entertainment in television and live sports events in the highest quality the country has seen, AsiaSat is connecting Myanmar. AsiaSat 4 at 122°E is serving areas of Myanmar right now, with companies such as KBZ Gateway Company Limited utilizing our VSAT capabilities. The company is also currently using capacity on AsiaSat 7's Ku-band, alongside other Myanmar customers including Seanet, and King Royal Technologies Co Ltd. With the increased C-band power and a customized Ku-band on AsiaSat 9, AsiaSat will be positioned to serve Myanmar better, and to an expanding portfolio of customers and end users.

Gogo and SES Sign Capacity Deals to Meet Surging Inflight Connectivity Demand in North America

April 5, 2017 - SES today announced new satellite capacity deals with Gogo to meet the growing demand for high-speed inflight connectivity services on travel routes over the US and Canada. The new contracts with Gogo include capacity on 12 additional Ku-band transponders, as well as supporting ground infrastructure. With these

latest agreements, Gogo has now signed important capacity deals across 11 SES satellites around the world, including significant long-term agreements for Ku-band high throughput (HTS) capacity onboard two SES satellites (SES-14 and SES-15) scheduled for launch this year. SES continues to build a global network of multi-layered, multi-band capacity to meet the specific needs and requirements of the evolving aeronautical market.

Inmarsat Crosses Milestone of 1,000 Aircraft in Backlog for Next-Generation Inflight Broadband

April 5, 2017 - Inmarsat has more than 1,000 expected aircraft under signed contracts, both installed and as a backlog, for its next-generation GX Aviation and European Aviation Network (EAN) inflight broadband services. The milestone was celebrated during an evening reception with airline customers, partners and the media at the Aircraft Interiors Expo (AIX) in Hamburg, Germany last night. The fast-growing backlog, which includes aircraft that have either been installed or are awaiting installation, is a major endorsement of Inmarsat's strategy to make the connected aircraft a reality. It follows a succession of leading airline customers that have selected to equip their fleet with Inmarsat's GX Aviation and EAN services, including Lufthansa Group, International Airlines Group (IAG), Air New Zealand, Singapore Airlines, Norwegian Air and Air Asia.

Singapore Airlines Selects ViaSat for Improved In-flight Safety and Compliance

April 6, 2017 - ViaSat Inc. announced that Singapore Airlines has selected ViaSat's AeroDocs document management system to distribute its digital documents in a secure, controlled manner, with advanced workflow tracking to help maintain aviation regulatory compliance. AeroDocs is a modular, aviation-grade document management software system that gives airlines complete control over the editing, distribution and viewing of their documents. It is designed to handle a mix of fleet sizes and aircraft types, enabling it to scale with Singapore Airlines. The software's pilot document iPad viewer delivers a best-in-class document viewing experience.

Qantas Turns on Fast, Free, Gate-to-Gate In-flight Wi-Fi with ViaSat/nbn Internet System

April 7, 2017 - Qantas, working with global broadband services and technology company, ViaSat Inc. (NASDAQ: VSAT), and nbn, Australia's broadband network service provider, turned on fast, free, gate-to-gate in-flight Wi-Fi on its ViaSat-equipped Boeing 737-800 aircraft. First in-flight Wi-Fi trial users were encouraged to stream their favorite TV shows or movies; listen to their playlists; engage on social media; watch live sports; read the latest stories on various news magazine sites; and surf the internet. For weeks, Qantas, ViaSat and nbn have been conducting in-flight Wi-Fi tests on the trial aircraft, as they prepare to launch into production later this year.

SSC and BridgeSat Announce Partnership to Benefit the BridgeSat Optical Communications Network and the SSC Universal Space Network

April 8, 2017 - The Swedish Space Corporation (SSC) and BridgeSat, Inc. announced a long-term partnership under which BridgeSat will install satellite optical communications equipment at certain of SSC's established radio-frequency (RF) ground sites and the two companies will cooperate commercially for the benefit of their respective customer bases. SSC owns and operates a global network of ground stations to provide secure and reliable access to a large number of satellites seeking radio frequency (RF) services. BridgeSat is developing a global optical communications network that will offer secure delivery of data from low Earth orbit (LEO) satellites at fast speeds and low cost. The partnership provides BridgeSat with access to certain of SSC's high quality existing ground stations and creates incentives for BridgeSat and SSC to cooperate commercially for the benefit of their customers in leveraging their respective capabilities in optical and RF satellite communication solutions.

Thuraya Forms Alliance with Satellite Startup ELSE

April 12, 2017 - Thuraya Telecommunications Company, and ELSE SA, a Swiss new space startup today announced that they have signed a memorandum of understanding (MoU) paving the way for a strategic alliance between the two organizations. The agreement will allow both companies to collaborate and benefit from each other's capabilities on multiple fronts including technical, regulatory as well as sales and marketing. From a commercial perspective, the agreement between Thuraya and ELSE extends their product and service portfolios considerably besides facilitating expedited access to the market. The ELSE team has supported more than ten European Space Agency (ESA) missions, seven nanosatellite missions and is building a network of low-earth-orbit (LEO) nanosatellites named Astrocass that will provide cost effective IoT and machine-to-machine services to global enterprises. This mission is also supported by ESA through their ARTES program. The first satellites are scheduled for launch by 2018, as a demonstration mission, with a plan to have a total of 64 satellites in orbit by 2021. Once fully operational, the constellation will provide remote monitoring, geolocation services, predictive maintenance and intelligent data gathering. The full scope of markets that will benefit from these capabilities will include retail, agriculture, automotive, utilities, maritime; oil and gas among others.

SpeedCast Secures Two Systems Integration Contracts with Leading Fabricator for Offshore E&P Assets

April 12, 2017 - SpeedCast International Limited announced it has won two new systems integration projects with a leading fabricator for the oil and gas industry. In both contracts, SpeedCast has been named telecoms systems integrator, responsible for all telecommunications components. Under the terms of the agreements, SpeedCast will design, integrate, test and deliver the entire communications systems solution. The first of these projects is in support of a new wellhead platform to be located offshore Brazil and the telecom package includes 14 systems. The second of these projects is for a new pipeline support platform to be located in the Gulf of Mexico and the telecom package includes 19 systems. These systems include elements such as wide-area and local-area networks, closed-circuit television (CCTV), company phone, public address and general alarm (PAGA), television receive-only (TVRO) and meteorological monitoring.

ABS Announces the Co-Branding of ABS-2A Capacity as MongolSat-1 Satellite

April 19, 2017 - ABS announces 12 x 27 MHz of payload on ABS-2A will be co-branded as the MongolSat-1 satellite, dedicated to the Mongolia market. MongolSat-1 represents the country of Mongolia's first co-branded satellite payload in its history. The 12 x 27 MHz channel satellite capacity of MongolSat-1 will be used exclusively to launch a free nationwide digital satellite TV service, telecommunications and broadband services. The new services will be available throughout the vast geography of Mongolia.

Australian Defence Wants 900MHz Block Set aside for Small Satellites

April 19, 2017 - The Department of Defence has called on the Australian Communications and Media Authority to consider the future requirements of small satellites in any reconfiguration of the 900MHz spectrum band. Defence is currently involved in a number of small satellite projects with the US military, which typically demand the use of parts of this band. In a submission to the ACMA's consultation on reconfiguring the band, it pointed to the absence of ITU harmonised arrangements for small satellites, which includes so-called Cubesats and nano-satellites. The Defence Science and Technology Group currently has two small satellite projects in development – Bairri and Buccaneer – that are being developed in conjunction with both US and Australian partners. However, according to the submission, the frequencies to be used are not modifiable by the Australian partners. Defence has suggested that ACMA identify a frequency block that could be reserved for small satellites at specific locations around Australia. It said having a specific block for small satellites would reduce the risk of interference to mobile broadband services.

SES Launches Rapid Response Vehicle for Defence, Security and Humanitarian Missions

April 20, 2017 - SES has announced its new government product Rapid Response Vehicle (RRV), a SATCOM-enabled platform capable of providing high-speed connectivity and global communications services tailored to a broad range of commercial, civil, humanitarian and defence missions around the world. The Rapid Response Vehicle is the world's first mobile platform to offer collaborative communications technologies over multiple orbits and frequencies, including Ku-, Ka- and Military X- and Ka-bands, across SES's GEO fleet and fiber-like Ka-band delivered over its MEO constellation. The versatile RRV can easily adapt with connectivity customized for specific scenarios and applications such as high-definition video conferencing, streaming, voice, GSM backhaul, high-speed broadband, and large data file transfers in locations where infrastructure is non-existent or destroyed

Liquid Telecom and Intelsat Team to Expand High Performance Broadband Services in Africa

April 20, 2017 - Pan-African telecoms group Liquid Telecom, a subsidiary of Econet Global, and Intelsat have announced a new agreement that will introduce high performance Intelsat Epic^{NG} satellite services into the Liquid Telecom network. As part of the new, multi-year agreement, Liquid Telecom has committed to dedicated services on the Intelsat 33e satellite, which began operations earlier this year. The solution features ground networking equipment based upon the Newtec Dialog[®] VSAT platform, including technology developed under the ESA-funded Project Indigo announced previously by Intelsat and Newtec. By taking advantage of Intelsat's high-throughput satellite (HTS) solutions, Liquid Telecom will be able to deliver more bandwidth with greater efficiency to meet the growing needs of businesses across Africa. The new Intelsat Epic^{NG} services will expand Liquid Telecom's coverage and network capabilities across the Democratic Republic of Congo, Kenya, Malawi, South Africa, Tanzania, Uganda, Zambia and Zimbabwe, where demand has grown for VSAT technology to deliver connectivity to underserved remote or rural areas.

Global Teleports Launches Occasional Broadband Service

April 20, 2017 - Global Teleports is to launch VipNet[™] Event, a new, cost-effective, occasional use superfast broadband service. The service, which is available to both businesses and residential users, will be more cost effective for people who don't need a superfast service all of the time, such as for events or live broadcasts, or

even for personal users looking for an occasional service for second homes abroad. Campsites or holiday cottages which have very seasonal trade will be able to ramp up capacity for a short period to satisfy demand. One off event organizers will be able to hire equipment and have superfast broadband wherever and whenever they like without being tied into long term contract.

Iridium and Lindsey Manufacturing Strike Innovative Utility Partnership

April 21, 2017 - Iridium Communications has entered into a new partnership with Lindsey Manufacturing, a pioneer in Emergency Restoration Systems (ERS), Transmission Line Monitors (TLM) and Dynamic Line Rating (DLR) technologies for major transmission utility companies. This unique partnership expands Iridium's footprint in the transmission utility day-ahead-power-transfer capacity market, by integrating satellite communications with transmission line analytic solutions. Lindsey Manufacturing specializes in power line conductor behavior monitoring, which typically relies on cellular connectivity. Their new software solution, called SMARTLINE, enhances traditional DLR methods for utility companies by enabling more reliable and accurate measurement capabilities and better managing power line capacity to maximize the power grid. Utilities using SMARTLINE DLR technology will have access to these capabilities and data for transmission lines located anywhere on the planet, including remote areas where communication infrastructure is typically compromised or largely unavailable.

Intelsat Extends Agreement with Starz for Galaxy Fleet Programming Distribution in the United States

April 21, 2017 - Intelsat S.A. announced that leading global media and entertainment company, Starz has extended its commitment for distribution services on the Intelsat Galaxy satellites. Under the agreement, Intelsat will provide a combination of broadcast and IntelsatOne services for Starz, which currently distributes 49 channels/feeds on the Intelsat fleet. This includes content distribution via the Intelsat Galaxy 13, Galaxy 14 and Galaxy 15 satellites. Intelsat will also provide disaster recovery services through a secondary uplink chain from Intelsat's teleport in Castle Rock, Colorado.

Gogo and SES Bolster Inflight Connectivity Capacity over North America and the Pacific

April 24, 2017 - SES announced that Gogo, global provider of broadband connectivity products and services for aviation, has signed a new capacity deal to enhance inflight connectivity services on key air travel routes over North America and the Pacific Ocean. As part of the new agreement, Gogo has leased all available capacity on SES's AMC-4 satellite, which SES will move to a new orbital location to serve flights to, from and within the states of Alaska and Hawaii, flights along the west coast of the US and flights over the Pacific Ocean.

RSCC Signed an Agreement with HorizonSat on the Use of Express-AM6 Satellite Capacity

April 24, 2017 - Russian satellite services operator Satellite Communications Company (RSCC) and the Middle-East services provider "HorizonSat" reached an agreement on the use of a significant amount of "Express-AM6" Satellite capacity. "HorizonSat" (UAE) entered into an agreement with RSCC on the use of Express-AM6 (53° E) satellite capacity in Ku-band to provide communications and broadband services in the Middle East and Central Asia. The services will be provided from the HorizonSat teleport based in Munich (Germany).

Gazprom Space Systems Deliver HorizonSat Yamal-402 Satellite Capacity for Services in Africa

April 24, 2017 - Gazprom Space Systems, Russian satellite operator and HorizonSat (United Arab Emirates), a leading satellite services provider, concluded contract for Yamal-402 satellite capacity use. The capacity leased by HorizonSat will be applied for providing Internet connectivity in the countries of Central and Eastern Africa (Congo DRC, CAR, Kenya, Tanzania and other countries). Southern Beam of Yamal-402 satellite has a good coverage of this region and cross-strap with European Beam allows using HorizonSat teleport in Munich connected to high-speed Internet backbones.

Intelsat to Provide Intelsat Epic^{NG} Services for Morocco's INWI

April 25, 2017 - Intelsat has announced that Morocco's INWI has signed an agreement to integrate satellite services from the Intelsat Epic^{NG} platform into INWI's network. INWI, the fastest-growing mobile operator in Morocco, is expanding into cellular backhaul services and, following the awarding of a VSAT license by Morocco's National Agency of Telecommunications Regulation (ANRT), is also preparing to launch broadband connectivity services. Under the new agreement, INWI will incorporate services from the Intelsat 35e satellite, enabling the mobile operator to enhance its existing network while also delivering improved performance that supports INWI's goal to expand its business and reach new regions in the country.

Eutelsat Expands Cable Reach into over 50 Million Homes across the Americas

April 25, 2017 - Eutelsat Communications is carrying out a far-reaching antenna seeding programme to allow broadcasters across the Americas to enhance their reach and cable operators to enrich their offer via Eutelsat's premium video neighbourhoods at 65° West and 113/117° West. The programme is boosting opportunities for broadcasters to distribute their content and will further anchor the EUTELSAT 113 West A and EUTELSAT 117 West A satellites in Latin America's cable market with 100% penetration of tier 1 and 2 operators, representing over 32 million homes. Through the same initiative, EUTELSAT 65 West A is poised to achieve 100% penetration of Brazilian cable operators, allowing Eutelsat's key satellite for Brazil to reach over 18 million homes. Both programmes will be completed by the end of 2017. These programmes will allow Eutelsat to further position itself in the Americas broadcasting market, where it already has significant reach. Key customers across these neighbourhoods include Televisa, Thema, and SPI.

Marlink Launches New Sealink Business VSAT Service Packages

April 25, 2017 - Marlink has expanded its extensive Sealink VSAT portfolio with new service plans specially designed for the business needs of maritime customers. The new Sealink Business is a highly flexible, cost-effective way to meet the diverse operational and crew communication requirements for maritime customers of all segments and features a choice of Committed Information Rates (CIR) to guarantee constant minimum bandwidth at all times. The service plans enable digitalisation of vessel operations by ensuring fixed bandwidth is always available for applications and processes that contribute to more efficiency throughout the shipping value chain. With seven CIR levels available from 32 to 256 Kbps, in addition to a burstable Maximum Information (MIR) up to 2Mbps, Sealink Business benefits a wide range of users. It provides a guaranteed amount of bandwidth that will always be present, ensuring access to business critical applications at the defined speed, regardless of data consumption of other users, e.g. the Crew.

Comtech EF DATA Receives Contract Extension for Advanced TDMA Interface Processor Terminals

April 26, 2017 - Comtech Telecommunications Corp. announced that during its third quarter of fiscal 2017, its Tempe, Arizona-based subsidiary, Comtech EF Data Corp., which is part of Comtech's Commercial Solutions segment, received a \$1.8 million contract award extension for additional Advanced Time Division Multiple Access (TDMA) Interface Processor (ATIP) production terminals and Engineering Support Services from the Space and Naval Warfare Systems Command (SPAWAR). The ATIP is a Layer-2 Ethernet bridging device installed on ship, shore and submarine platforms in the Navy Multiband Terminal (NMT). The ATIP program is providing significant improvements to the Advanced Extremely High Frequency (AEHF) system's performance through dynamic bandwidth management, support for higher XDR data rates, and increased throughput.

Mitsui USA Partners with Rajant to Advance Industrial IoT and Autonomous Applications

April 26, 2017 - Rajant and Mitsui & Co. (U.S.A.), Inc., a wholly owned subsidiary of Mitsui & Co., Ltd., Tokyo, Japan, announced that they will jointly develop and market Rajant's Kinetic Mesh™ wireless networks, and extensive information assurance and security expertise to solve the advanced communications challenges of IIoT (Industrial Internet of Things), drones, V2V (vehicle to vehicle), and other autonomous applications. With its mission to help companies evolve and achieve their strategic goals, Mitsui USA plans to connect Rajant with companies desiring to streamline operations, increase revenue, and achieve real-time intelligence for better corporate decision-making. Optimizing network infrastructures is a key requirement toward realizing these objectives.

Thuraya Launches Inflight Connectivity Services

April 26, 2017 - Thuraya Telecommunications Company has announced the launch of Thuraya AERO, a satellite communication service that enables in-flight connectivity for internet access, voice calls, text messaging and high-speed data applications on board small to medium sized aircrafts. Developed in collaboration with the Aero Group, a consortium of global technology and service innovators consisting of Cobham, SCOTTY Group, SRT Wireless and led by smp aviation; Thuraya Aero is suitable for fixed wing and rotary wing aircrafts as well as any other air platforms flying missions beyond line of sight. Thuraya Aero enables applications requiring real time airborne data such as search and rescue (SAR), ISR (Intelligence, Surveillance and Reconnaissance), telemedicine, military operations, office-in-the-sky and border surveillance. Its unique capabilities allow Thuraya to provide services to a wide range of market segments including government, military, enterprise and disaster relief.

Shenzhen Airlines Begins Evaluation of SwiftBroadband-Safety, Inmarsat and Cobham's Next Generation Connectivity Platform for the Flight Deck

April 26, 2017 - Beginning May 2017, Shenzhen Airlines will launch its in-flight evaluation of SwiftBroadband-Safety (SB-S), Inmarsat's next generation IP-based broadband service for the flight deck. The SB-S platform, which will be installed on Shenzhen's Airbus 320 aircraft using Cobham avionics' AVIATOR 300D hardware, will deliver powerful and flexible in-flight communications and secure, real-time, in-air information to enhance Shenzhen's safety, security and operational capabilities – both in the air and on the ground. The Shenzhen partnership is part of a joint venture between Inmarsat, Beijing Marine Communication & Navigation Company, Ltd. (MCN) and Aviation Data Communication Corporation (ADCC) to provide aviation safety services to the rapidly growing Chinese market. Under this partnership, MCN and ADCC will deliver satellite voice, ACARS (Aircraft Communications Addressing & Reporting System) and data services. MCN will serve as project manager for Shenzhen's SB-S evaluation process.

Comtech Announces the Order for Advanced Communications Solutions for Government Customer

April 28, 2017 - Comtech Telecommunications Corp. announced that during its third quarter of fiscal 2017, its Command & Control Technologies group, which is part of Comtech's Government Solutions segment, has received a \$2.4 million funded order for advanced communications solutions for which the Company will provide annual maintenance service for previously deployed downrange stations for an international space agency.

BROADCASTING

NTV-PLUS and Eutelsat Strengthen Relationship across Russia's Key Video Neighbourhoods

April 3, 2017 - NTV-PLUS, Russia's original premium pay-TV platform, has consolidated its coverage across Siberia and extended broadcasting into the country's Far East following the conclusion of contracts on two satellites with longstanding partner, Eutelsat Communications. With the launch of new services on 1 April, NTV-PLUS is achieving its objective of full coverage of the Russian Federation, enabling viewers across the country to benefit from the diversity and quality of digital TV. This new wave of expansion follows approvals earlier this year from Russia's Federal Tender Commission for NTV-PLUS to extend its broadcasting footprint as far as the Pacific Coast. NTV-PLUS has signed a multi-year, multi-transponder contract with Eutelsat covering the Express-AT2 satellite at 140 degrees East to reach homes in Far East Russia and incremental capacity on the Express-AT1 satellite at 56 degrees East to consolidate its coverage of Siberia. Launched with Eutelsat over 20 years ago, NTV-PLUS today offers subscribers more than 240 special-interest channels including a growing stable of High Definition content. Its offer includes 42 channels produced by Gazprom Media with a strong focus on exclusive premium sport across 11 channels.

Av-Comm Announces Multi-year Agreement for Telekom Television

April 4, 2017 - Av-Comm has signed a multi-year agreement to deliver High Definition television content for Telekom Television in the Solomon Islands via Intelsat's C Band capacity on IS-805 at 169°E. The project includes the use of several new complementary technologies to drive an unmatched level of bandwidth utilization, designed to maximize the number of television channels on the content delivery platform. Av-Comm has selected Novelsat's NS series modems with NS4 waveform, and DUET™ CEC™ (carrier-echo-cancellation) technology to provide a satellite link efficiently in excess of 4 bits per hertz, allowing for up to eight HD video circuits into the Solomon Islands and a single HD video circuit in return. Additionally, Av-Comm's Pacific Content Delivery Platform utilizes HEVC video encoding to complement Novelsat's advanced modem technology to provide a greater return on Telekom Television's investment in satellite bandwidth on Intelsat 805. The delivery of television content via satellite is a critical requirement for the Solomon Islands as satellite is the country's sole method of accessing the interconnected global community.

GS Group Completed an Investment Project to Create Bangladesh's First Satellite Pay-TV Operator

April 6, 2017 - GS Group holding company announced the sale of its share in the joint venture Beximco Communication Ltd that operates in Bangladesh under the RealVU brand. In so doing, the holding company has successfully completed an investment project to create the first satellite Pay-TV operator in the country. Beximco Communication Ltd will continue to operate the broadcasting equipment and infrastructure developed and integrated by GS Group. The RealVU project was launched in April 2016 in partnership with BEXIMCO, a Bangladeshi diversified conglomerate. GS Group served as an investor and provided the supply and integration of its own software and hardware solutions, which will still remain the basis of RealVU even after GS Group leaves the project. The first national DTH-platform RealVU provides high-quality digital broadcasting throughout

Bangladesh. The operator offers 112 SD and HD TV channels, including international channels in English, popular Indian TV content, as well as channels with local content produced in Bangladesh. Digital TV set-top boxes developed by GS Group meet the needs of today's TV viewers offering smart functions such as PVR and TimeShift along with an electronic program guide (EPG).

PMC Music Channel Now Exclusively on Yahlive

April 17, 2017 - Yahlive announced that North Telecom will be broadcasting PMC Music exclusively via Yahlive over Yahsat Al Yah1 satellite. The free-to-air music channel, which targets Farsi, Afghan and Kurdish communities in South West Asia and the Middle East regions, is being broadcast by Yahlive's East beam - a hotspot available to more than 140 million viewers in the region. Yahlive delivers a selective choice of premium television channels through its free-to-air platform and has become the market leader for Farsi-speaking audiences in the Middle East and South West Asia. Headquartered in the United Arab Emirates, Yahlive was launched in 2011 as a joint venture between Yahsat, a pioneering UAE-based satellite operator, and the world leading satellite operator, SES. Yahlive operates a leading-edge network to broadcast free-to-air high-quality satellite television and positively impacts the lives of its viewers by remaining connected through language and content.

MX1 and VUBIQUITY Sign Global Linear Distribution Deal

April 20, 2017 - MX1 and VUBIQUITY, the leading provider of media technology solutions and premium content services that connects content owners with video providers to deliver entertainment on any screen, have signed a multi-year linear distribution deal. The new service offering combines VUBIQUITY's linear transport portfolio with MX1's service infrastructure and future-proof content aggregation management and delivery technology. These capabilities offer broadcasters, TV channels, affiliates, rights holders and content aggregators the ability to aggregate content and reach millions of viewers in the US and worldwide, quickly and simply through a single platform. Services are centralized from MX1's Media Centre in Hawley, PA, and went live in the US at the end of 2016.

CCTV News and Documentary Now Available in High Definition in the Americas via Intelsat 34

April 20, 2017 - Intelsat S.A. signed a multi-year agreement expanding its global relationship and leveraging IntelsatOne terrestrial fiber and teleport services to distribute five high definition (HD) channels for China Central Television (CCTV). Under the agreement, CCTV, the national broadcaster of the People's Republic of China, expands its footprint in the Americas from its current bouquet on Intelsat 21 by distributing new HD channels on Intelsat 34. One of Intelsat's premier distribution neighborhoods in the Americas, Intelsat 34, located at 304.5 degrees East, currently reaches more than 29 million cable subscribers and delivers distribution services for several premium and sports channels. CCTV recently rebranded much of its channel line-up under the China Global Television Network (CGTN) moniker. As a result of the agreement, CCTV will expand its use of the HD format for its news and documentary style programming to viewers in the Americas. Three HD channels – CCTV-4, CGTN and CGTN Documentary – are available now on Intelsat 34. Two additional HD channels – CGTN-Français and CGTN Español – will also be deployed on Intelsat 34 in the future.

US Pay TV Providers Launch First Linear Consumer Ultra HD Services with SES

April 24, 2017 - SES announced that two innovative MVPDs in the US have launched the first commercial linear Ultra HD services to cable and IPTV subscriber homes using SES's satellite-delivered, pre-packaged, Ultra HD solution. Marquette-Adams of Oxford, Wisconsin and Highlands Cable Group of Highlands, North Carolina have licensed the SES-provided Ultra HD programming through Vivicast Media and have initiated their Ultra HD offerings following successful trials of the SES platform. Additional cable and IPTV operators are also close to launching their own milestone Ultra HD services on SES's fully-managed, scalable system, which is aimed at accelerating 4K Ultra HD deployments across North America. Programming on the SES Ultra HD lineup features ten 4K Ultra HD channels, including Fashion One 4K, Travelxp 4K, 4KUNIVERSE, NASA TV UHD, INSIGHT TV, UHD1, C4K360, Funbox 4K, Nature Relaxation 4K as well as SES's UHD demonstration channel. These channels are hosted on a trio of SES satellites at the centre of the orbital arc (SES-1, SES-3, AMC-18), which covers 100% of the cable head-ends in the US. Vivicast has played an integral role in the launch of commercial linear Ultra HD by securing licensing rights for the Pay TV providers offering the impressive 4K Ultra HD programming lineup provided by SES.

Encompass Digital Media Strengthens Partnership with MEASAT

April 25, 2017 - MEASAT Satellite Systems Sdn. Bhd. ("MEASAT") announced that Encompass Digital Media ("Encompass") is expanding their presence on MEASAT's leading 91.5°E video neighbourhood. Eight (8) more

channels are now available from 91.5°E: HITS HD, KIX360 SD, Zee Sine SD, beIN Asia Pacific's Indonesia feeds - beIN SPORTS 1, beIN SPORTS 2, beIN SPORTS 3, WAKUWAKU JAPAN SEA HD and WAKUWAKU JAPAN Taiwan HD, all of which are distributed to TV platforms in more than 100 countries across the Asia Pacific. The 91.5°E prime video hot slot is home to the MEASAT-3, MEASAT-3a and MEASAT-3b satellites, forming the region's strongest video neighbourhood. From 91.5°E, MEASAT supports broadcasters and DTH operators to distribute UHD, HD and SD channels to audiences across Asia, Australia, East Africa and South Eastern Europe.

SES Offers Panoramic Glimpse into the Future of TV with Live Virtual Reality Demo

April 25, 2017 - SES together with Fraunhofer Heinrich Hertz Institute HHI and Newtec will demonstrate an immersive Virtual Reality (VR) experience with a live 360-degree Ultra HD VR satellite broadcast this week from the exhibit floor of the National Association of Broadcasters Convention in Las Vegas, Nevada. The live VR broadcast will originate from Fraunhofer HHI's OmniCam-360 camera, which will capture the sights and sounds of the SES event booth at NAB. The 10K x 2K panoramic broadcast signal will be transmitted over an SES satellite to multiple Ultra HD TV screens and VR goggles at the SES booth and other locations throughout the Las Vegas Convention Center. The transmission itself will be optimized using Newtec's next-generation DVB-S2X modulator and demodulator, designed to drive better bandwidth efficiency and higher performance throughout the broadcast.

STN Expands Channel Distribution Services with 100 EXECutor™ Broadcast Servers from PBTEU

April 28, 2017 - Global teleport STN has further expanded its service capabilities using PlayBox Technology Europe's (PBTEU) EXECutor™ Broadcast Servers. STN provides secure and reliable end to end service distribution solutions for broadcast and media organisations offering solutions that allow its customers to expand their channels in whatever direction they choose, whether it be for an individual region or to build a global distribution network. PBTEU's EXECutor™ Broadcast Servers offer a highly robust and dependable backbone, able to deliver a complete "TV Channel-in-a-Box", or be configured to offer any combination of component services, using world-renowned PlayBox software capable of delivering efficient, scalable, stable and flexible production pipelines.

LAUNCH / SPACE

Global-IP Selects SpaceX to Launch its 150 Gbps GiSAT-1

April 3, 2017 - Global-IP Cayman, the innovative satellite communications company with the mission to bring cost-effective Internet and related value-added services to Sub-Saharan Africa, announced that it has signed a launch services agreement with SpaceX for its first communication satellite GiSAT-1. GiSAT-1 is a High-Throughput Satellite (HTS) with 150 Gbps of capacity, currently under construction by The Boeing Company. SpaceX's Falcon 9 rocket will launch GiSAT-1. The deployment is scheduled for Q4 2018 and will launch GiSAT-1 into its trajectory for geostationary orbit off the west coast of Africa. GiSAT-1 will have a mission life of 15 years. Global-IP is incorporated in the Cayman Islands, with operations in California and Dubai. The company's vision is to be the catalyst in creating a paradigm shift on how the Internet is accessed and used in Africa.

EchoStar XXIII Satellite Successfully Positioned in Orbital Slot

April 3, 2017 - EchoStar Corporation reported that it has begun in-orbit testing of its new EchoStar XXIII satellite following successful placement into its geosynchronous orbital slot at 45° West longitude. The satellite was manufactured by Space Systems Loral (SSL) and launched on a SpaceX Falcon 9 launch vehicle from Launch Complex 39A at NASA's Kennedy Space Center – the first commercial launch from the historic launch complex – on March 16, 2017. EchoStar XXIII brings the EchoStar fleet to 26 owned, leased and managed satellites.

Orbital ATK Completes Major Development Milestones in Next Generation Launch Vehicle Program

April 3, 2017 - Orbital ATK, a global leader in aerospace and defense technologies, has made important progress over the past 18 months in developing advanced solid rocket propulsion and other technologies to be used in a new generation of intermediate- and large-class space launch vehicles. Through a combination of internal investment and government funding from an Air Force contract awarded in late 2015 by the Space and Missile Systems Center's Launch Systems Directorate, the company's Flight Systems Group recently completed design reviews, facility upgrades and tooling fabrication, and has now begun early production of development hardware for its Next Generation Launch (NGL) system. The company's modular NGL rocket family will be capable of launching a wide variety of national security payloads, as well as science and commercial satellites that are too large to be launched by its current fleet of Pegasus, Minotaur and Antares space launch vehicles. The NGL vehicles will operate from both east and west coast launch facilities and will share common propulsion, structures

and avionics systems with other company programs, including its smaller space launch vehicles as well as missile defense interceptors, target vehicles and strategic missile systems.

SSL and NASA Successfully Complete First Restore-L Milestone

April 4, 2017 - Space Systems Loral (SSL) announced that it successfully completed the Systems Requirements Review (SRR) for the Restore-L project to demonstrate satellite servicing in Low Earth Orbit (LEO). As announced on December 9, 2016, SSL is working with NASA Goddard Space Flight Center to build a spacecraft that will use robotics to grasp, refuel, and relocate an existing U.S. government satellite already in LEO orbit with the goal of demonstrating tools, technologies, and techniques that can be implemented on future government and commercial missions. The SRR, which took place over a two-day period at the SSL satellite manufacturing facility in Palo Alto, California, enabled the SSL and NASA teams to work together to review and verify the functional and performance requirements defined for the Restore-L spacecraft. The requirements that the teams agreed upon will drive modifications to the SSL 1300 platform, which is commonly used for commercial missions in geostationary orbit. The spacecraft will provide the structural support, propulsion, attitude control, data and communications interface, and power to support the Restore-L robotic payload for the on-orbit demonstration.

Lockheed Martin Debuts System to Protect Space Assets

April 5, 2017 - A growing number of satellite system owners and operators need new capabilities to protect their assets and missions in space. To address this need, Lockheed Martin introduces iSpace – intelligent Space – which provide defense, civil, commercial, and international customers with sensor data processing, space domain awareness, command and control, and battle management capabilities for the space domain. The iSpace software tasks, processes, and correlates data from a worldwide network of government, commercial and scientific community sensors and command centers. After gleaning information from optical, radar, infrared, and radio sensors, iSpace automatically provides information to users about what is happening in real-time and recommends the best course of action. Its advanced analytics and fusion capabilities enable proactive management of space events such as collisions, maneuvers, break-ups, launches, and co-orbital threats. The iSpace architecture is net-centric, open, and scalable with an intuitive user display configurable to be rapidly integrated in many environments for modeling and simulation, experimentation, or operational use. In developing iSpace, Lockheed Martin leveraged decades of space, air, maritime, and missile defense expertise obtained from multiple U.S. government programs such as Space Fence, Theatre Battle Management Core Systems, and Command, Control, Battle Management & Communications.

Mitsubishi Electric Chosen as Prime Contractor of Japanese Government's Engineering Test Satellite 9

April 7, 2017 - Mitsubishi Electric Corporation has been chosen by the Japan Aerospace Exploration Agency (JAXA) as the prime contractor for the Engineering Test Satellite 9 (ETS-9) scheduled to launch in 2021. The ETS-9 will be the centerpiece of a project to develop an advanced satellite bus, or common model, for various high-throughput satellites (HTS) for communications. Mitsubishi Electric hopes to leverage the advanced technologies it cultivates for the ETS-9 to win contracts for two satellite systems per year in the global commercial market. The Japanese government's Basic Plan for Space Policy has identified advanced technologies for communications and broadcasting satellites as crucial to Japan's security and global competitiveness in the space industry. Next-generation technologies to be deployed in the ETS-9 are expected to be in demand in the global market and will help Japan advance its industrial and scientific technology infrastructure. Mitsubishi Electric's existing DS2000 standard bus system, long proven in governmental and commercial satellites worldwide, is now facing intense competition in the market for new high-power, high-throughput communications satellites. In response, Mitsubishi Electric has placed top priority on developing a world-class, 25kW-output, all-electric satellite bus system through the ETS-9 in collaboration with JAXA.

Mitsubishi Electric to Build New Satellite Production Facility

April 7, 2017 - Mitsubishi Electric Corporation announced that it will invest approximately 11 billion yen to construct a new facility for the production of satellites at company's Kamakura Works in Kamakura, Japan. Together with existing facilities, Mitsubishi Electric's production capacity will increase to 18 satellites in parallel, up from 10 in parallel at present, which will enable the company to satisfy growing demand for governmental satellites in Japan and commercial communication satellites worldwide. Mitsubishi Electric is targeting space-related revenue of 150 billion yen by 2021. The new facility will increase production efficiency, shorten production time, reduce costs and elevate product quality for enhanced competitiveness. It will incorporate information technology based on Mitsubishi Electric's e-F@ctory solutions, which extract hidden benefits from existing resources through integrated automation to improve efficiencies, reduce costs and increasing overall productivity.

Mitsubishi Electric's long involvement with satellites includes the Himawari-7, -8 and -9 weather satellites, the Superbird-C2, Japan's first commercial communications satellite, QZS high-accuracy positioning satellite systems and the TURKSAT-4A and -4B satellites for Turksat A.S of Turkey.

Europe's Largest Sounding Rocket Successfully Launched from Esrange

April 7, 2017 - MAXUS 9, Europe's largest sounding rocket for experiments in micro-gravity, successfully lifted off from SSC's (Swedish Space Corporation's) launch facility Esrange Space Center in northern Sweden. The rocket was launched at 11:30 local time and carried nine scientific experiments and a technology demonstrator, all together 579 kg, to an altitude of 678 km which enabled slightly more than 12 minutes and of stable microgravity, 10-5 g. The payload landed with a parachute within the impact area and will be recovered by helicopter. The rocket engineers will then disassemble the payload to enable for the scientists to perform further analyses of their experiments. One of the main purposes of the different experiments is to investigate different materials and processes in microgravity. One example is the XRMON-Diff2 experiment module developed by SSC. By using a unique X-ray radiography, samples of the metal alloys Al-Ti and Si-Ge will be studied during the microgravity phase. The selected alloy systems are of industrial relevance and by observing them in clean microgravity conditions, important benchmark values for ground-based experiments will be obtained and thereby contributing to the improvement of solidification models. The MAXUS sounding rocket programme is a joint venture between SSC and Airbus, funded by ESA. Several other space companies are involved such as DLR, OHB and RUAG Space.

JAXA and CNES Make and Sign Implementing Arrangement on Martian Moons Exploration (MMX)

April 10, 2017 - Japan Aerospace Exploration Agency (JAXA) and the Centre National d'Etudes Spatiales (CNES) made an Implementing Arrangement on MMX, Martian Moons Exploration. This Implementing Arrangement confers JAXA and CNES the platform for collaboration. In the Agreement, JAXA expects CNES to share technical expertise and to render assistance in the three research topics for MMX research and development phase; Near-infrared Spectrometer (MacrOmega), Flight Dynamics, Feasibility of the Small Lander to be equipped. The Arrangement is based on the Inter-Agency Agreement between JAXA and CNES Concerning the Cooperation in the Field of Space Programmes, signed on October 5, 2015.

SSL Completes Agreement to Partner with DARPA on Satellite Servicing

April 12, 2017 - Space Systems Loral (SSL), a leading provider of innovative satellites and spacecraft systems, announced that it has signed and executed an agreement with the U.S. Defense Advanced Research Projects Agency (DARPA) to develop advanced capabilities for servicing and maintaining spacecraft in geostationary orbit. Details of the partnership were previously released on February 9, 2017. The work scope for the DARPA mission will be performed in its U.S. facility by its staff of engineers and technicians based in California.

Long March 3B Launches Experimental ChinaSat-16 Satellite

April 12, 2017 - China's first high throughput satellite SJ-13/Chinasat-16 was launched by LM-3B launch vehicle from the Xichang Satellite Launch Center. The satellite, with the capacity over 20G bps which exceeds the total capacity of all Chinese communications satellites before, was sent to orbit at 19:04 p.m. (Beijing time) by a LM-3B launch vehicle. The satellite is developed by China Academy of Space Technology (CAST), based on its DFH-4 platform using hydric propulsion technology. For the first time among all the DFH-4 based satellite, it will use electric propulsion for its on station keeping. ChinaSat 16 satellite, located at 110.5E, is aiming to provide Ka-band satellite broadband and multimedia services. China Satcom is responsible for the construction and operation of the satellite. The satellite is able to provide 26 user beams covering China and offshore areas and will service for distance learning, medicine, internet access, airborne and maritime communications and emergency communications. The new satellite will test a new electric propulsion system to be used for orbit raising and station keeping at a geosynchronous altitude. It also carries the first high-throughput satellite payload (HTS) developed by China. The satellite will also conduct space-to-ground laser communications experiments.

SSC Space US Supports Boeing's Launch and Early Orbit Checkout of WGS-8

April 13, 2017 - On 3 April 2017, SSC Space US, the U.S. subsidiary of SSC (Swedish Space Corporation), successfully concluded its support of Boeing's launch and early orbit checkout of the eighth Wideband Global SATCOM (WGS-8) satellite. Boeing leveraged SSC's multi-band satellite ground network services to support its WGS-8 orbit raising and system checkout process prior to transferring command and control to the 3rd Space Operations Squadron, at Schriever AFB. During the three month launch and early orbit checkout period, SSC ground stations in Hawaii, Alaska, Chile and Western Australia used Satellite Ground Link System (SGLS) and Unified S-Band (USB) frequency bands to meet all launch and satellite checkout communications requirements.

GomSpace Enters a Delivery Agreement with Spacety Co., Ltd.

April 13, 2017 - GomSpace ApS has entered an agreement with Spacety Co., Ltd. (Changsha). Spacety is the first Chinese commercial company to develop and deliver nano-satellite services. GomSpace will deliver the main components for a number of satellites that in the coming years will grow to a small constellation of satellites. The order value of this initial agreement is between 150,000 EUR to 200,000 EUR and will be delivered this year. Spacety's satellites will be launched by the end of 2017. "Spacety and GomSpace have been working together since 2015 and both companies look forward to continue the close cooperation. For GomSpace this agreement marks the beginning of a long future cooperation with Spacety to support their ambitious plans to be the main player in the Chinese market for small satellites," says Niels Buus, CEO of GomSpace.

Thales Alenia Space Completes Delivery of South Korea's GEO-KOMPSAT-2 Communications Payloads

April 18, 2017 - Thales Alenia Space has sent South Korea the third of three panels making up the communications payloads on the two GEO-KOMPSAT-2 satellites being built by Korea Aerospace Research Institute (KARI). This last panel will be integrated in the GK2B satellite, and follows the two panels already delivered by the company at the end of last year for the GK2A satellite. GEO-KOMPSAT-2 (Geostationary Earth Orbit Korea Multi-Purpose Satellite) is a key South Korean space program that will provide vital meteorological, oceanographic and environmental data for both government bodies and private end-users. The program comprises two satellites, GK2A and GK2B, each weighing around 3.5 tons, to be located at 128.2° East longitude in geostationary orbit – 36,000 kilometers above the equator. The two satellites are scheduled for launch in 2018 and 2019. The GK2A satellite will carry out meteorological and space environment monitoring, using two main instruments: AMI (Advanced Meteorological Imager) and KSEM (Korean Space Environment Monitor). The GK2B satellite is designed to monitor oceans and the Earth's environment, also using two dedicated instruments: GOCI-II (Geostationary Ocean Color Imager-II) and GEMS (Environmental Monitoring Spectrometer).

Orbital ATK's Cygnus Launched on Seventh Cargo Delivery Mission to International Space Station

April 18, 2017 - Orbital ATK successfully launched its Cygnus™ spacecraft to the International Space Station aboard a United Launch Alliance (ULA) Atlas V launch vehicle with approximately 7,600 pounds (3,450 kilograms) of cargo as well as 38 cubesats, many built by university students, which will be deployed directly from either the space station or the spacecraft in the coming months. The Atlas V rocket lifted off from Cape Canaveral Air Force Station, Florida. The launch marks the company's seventh operational cargo resupply mission (OA-7) for NASA under its Commercial Resupply Services-1 (CRS-1) contract. The spacecraft, named the S.S. John Glenn in honor of the late astronaut, will also become the third Cygnus to conduct scientific experiments following its departure from the station.

Japanese Cloud Radar Meets its Spacecraft at Airbus' Satellite Centre in Friedrichshafen

April 19, 2017 - EarthCARE, the Cloud, Aerosol and Radiation Mission of European Space Agency (ESA), met its Cloud Profiling Radar (CPR), the Japanese payload for the mission, for the first time when the Japanese Space Agency (JAXA) handed over the instrument to ESA at Airbus' Satellite Centre in Friedrichshafen (Germany). Airbus is ESA's prime contractor to develop and build the EarthCARE satellite. In the coming weeks, JAXA and ESA teams will run final checks on the instrument before giving a "green light" to the Airbus project team to integrate it with the spacecraft. Once assembled on EarthCARE, it will be tested intensively for several weeks. Then the instrument will be handed back to JAXA for further adjustments before its final integration next year. EarthCARE will collect global simultaneous observations of cloud and aerosol profiles together with solar and thermal radiation and will include these parameters in numerical weather and climate models.

Arianespace, Intelsat and SKY Perfect JSAT Sign a New Launch Services Agreement for Horizons 3e

April 20, 2017 - Arianespace will launch Horizons 3e, a satellite belonging to the Horizons joint venture owned by Intelsat and SKY Perfect JSAT. Arianespace will orbit this Boeing-built payload in the launch period starting late 2018 on an Ariane 5 from the Guiana Space Center in French Guiana. Horizons 3e will complete Intelsat's global EpicNG network. The high-throughput satellite's C-band and Ku-band transponders will provide 22 Gbps+ in growth capacity for aeronautical and maritime mobility applications spanning from Asia and the Pacific to North America. Horizons 3e is also expected to support further development of specialty networks for governments. The spacecraft will weigh 6,500 kg. at liftoff.

LM-7 Successfully Launches China's First Cargo Spacecraft Tianzhou-1

April 20, 2017 - China's first cargo spacecraft Tianzhou-1 was launched by LM-7 launch vehicle from the Wenchang Space Launch Center. Tianzhou-1 is the first cargo ship developed by China Academy of Space Technology (CAST). Measuring 10.6 meters in length and up to 3.35 meters in diameter, the tube-like Tianzhou-1

can carry over 6 tons of cargo. It is expected to operate in orbit at 380 kilometers and then dock with the orbiting Tiangong-2 space lab three times and conduct propellant refueling in orbit as well as other space experiments before falling back to earth. Tiangong-2 will remain in orbit and continue its experiments. The launch of Tianzhou-1 will be a crucial step for China plans for a space station by approximately 2022. The LM-7 launch vehicle is developed by China Academy of Launch Vehicle Technology (CALT). Fuelled by liquid oxygen and kerosene, the medium-sized launch vehicle is able to carry cargo spacecraft and satellites with the capability of 13.5 tons to low-Earth orbit. It made its maiden flight June 2016. The launch mission is the 2nd mission of the Long March 7 series launch vehicle and the 247th flight of Long March Family.

Airbus Safran Launchers Initiates Production of the Ariane 6 Ground Qualification Models

April 21, 2017 - With "Maturity Gate 6.1", Airbus Safran Launchers and its industrial partners have passed a major milestone in the development of Ariane 6, under contract with the European Space Agency (ESA). The review confirmed that the maturity of the industrialization of Ariane 6 is sufficient to begin production of the ground qualification models for the future European launcher, in accordance with the objectives of the program. This major step follows on from "Maturity Gate 5" which, in 2016, had enabled Airbus Safran Launchers to validate the technical, industrial and programming characteristics of Ariane 6 and to continue with development of the launcher with its partners, as planned. The Ariane 6 development method, called "Ariane 6 Way", comprises 15 major steps, 6 of which have already been completed. "Maturity Gate 11" will give the green light for the first flight of Ariane 6, while "Maturity Gate 15" will mark the end of development and the start of full operational capacity. Each "Maturity Gate" takes place under the responsibility of Airbus Safran Launchers, and involves independent experts. "Maturity Gate 6.2" is slated to take place at the end of 2017, so that the production of the first Ariane 6 flight models can begin. Ariane 6, which is also ideal for constellations, is built on behalf of the European Space Agency (ESA) and will be a flexible, modular and competitive launcher available in two versions, Ariane 62 and Ariane 64, to guarantee continued European access to space.

ViaSat Confirms the ViaSat-2 Satellite is Scheduled to Launch on June 1, 2017

April 27, 2017 - ViaSat Inc. confirmed the scheduled launch date for the ViaSat-2 satellite is June 1, 2017. The ViaSat-2 satellite will launch aboard an Arianespace Ariane 5 ECA launch vehicle from the Guiana Space Center, Europe's Spaceport in Kourou, French Guiana. The satellite will be sent into geostationary transfer orbit by the launch vehicle and will provide broadband services from an orbital slot located at 69.9° west longitude. The ViaSat-2 satellite system is expected to significantly improve speeds, reduce costs and expand the footprint of broadband services across North America, Central America, the Caribbean, a portion of northern South America, as well as the primary aeronautical and maritime routes across the Atlantic Ocean between North America and Europe. ViaSat-2 is a geostationary satellite that operates in Ka-band frequencies. It was designed to offer high-capacity connectivity and wide coverage, with the flexibility to move capacity to where demand requires it. ViaSat-2 is expected to double the bandwidth of ViaSat-1, with more than 300 Gigabits per second (Gbps) of total network capacity, as well as provide seven times the broadband coverage over its predecessor. ViaSat-2 is expected to enter service in early calendar year 2018.

EXECUTIVE MOVES

Kevin Steen Appointed New CEO of VT iDirect

April 3, 2017 - VT iDirect, Inc. (iDirect), a world leader in satellite-based IP communications technology and a company of Vision Technologies Systems, Inc. (VT Systems), announced that Kevin Steen has been named the company's new Chief Executive Officer. Mary Cotton, as retiring CEO, will serve on VT iDirect's Board of Directors as CEO Emeritus, advising the company on key strategic initiatives. Steen has served as Chief Operating Officer and Senior Vice President of Global Sales since joining VT iDirect in 2010. As a key member of VT iDirect's leadership team, he has been responsible for charting the company's strategic growth across sales, operations and business development. Steen has led a major effort across VT iDirect and its global partner base to advance the role of satellite technology in the end-to-end telecom network; identify new market opportunities for satellite communications, and collaborate with VT iDirect's ecosystem to co-develop industry-leading technology.

SES Accelerates its Market Approach with SES Video and SES Networks

April 7, 2017 - SES announced that its Board of Directors approved a restructuring of SES's go-to-market organisation model with the creation of two highly focused business units, SES Video and SES Networks, focusing on the video- and data-centric segments in which SES operates. The new organisation, which will be

implemented during the course of 2017, will gather all go-to-market capabilities and allow SES to deliver increasingly differentiated and essential satellite-enabled communication solutions to SES clients in the respective video and data-centric segments. SES Networks comprises the Enterprise, Mobility, and Government segments and integrates O3b Networks. Ferdinand Kayser, currently Chief Commercial Officer of SES, is appointed Chief Executive Officer of SES Video; Steve Collar, currently Chief Executive Officer of O3b Networks, is appointed Chief Executive Officer of SES Networks. Both will report to Karim Michel Sabbagh, President and Chief Executive Officer of SES. In addition to the President and Chief Executive Officer, the Chief Executive Officer of SES Video and Chief Executive Officer of SES Networks, the Executive Committee of SES comprises the Chief Financial Officer, Padraig McCarthy; the Chief Strategy and Development Officer, Christophe De Hauwer; the Chief Technology Officer, Martin Halliwell; the Chief Human Resources Officer, Evie Roos; and the Chief Legal Officer, John Purvis.

SSL Builds Executive Team for US Government Systems

April 13, 2017 - Space Systems Loral (SSL), a leading provider of innovative satellites and spacecraft systems, today announced that it is increasing its commitment to support U.S. government missions with key executives that bring a depth of experience to the company. Under the direction of Richard White who was promoted to President of SSL Government Systems, Robert Zitz has joined the company as Senior Vice President and Chief Strategy Officer for SSL Government Systems.

Inmarsat's Mark Dickinson elected as new Chairman of Space Data Association

April 24, 2017 - Mark Dickinson, Vice President of Satellite Operations Inmarsat, has been elected as the new Chairman of the Space Data Association (SDA), an international non-profit association of satellite operators that supports the controlled, reliable and efficient sharing of space environment and RF spectrum data. Dr Dickinson succeeds the outgoing SDA Chairman, Mark Rawlins, Eutelsat, who will continue as a Director of the group. In his role at Inmarsat, Mark Dickinson is responsible for the operation of Inmarsat's fleet of geostationary telecommunication satellites, as well part of the team defining the specifications and following the development of Inmarsat's future satellites. The SDA has also announced that Jean-Luc Froeliger is joining as a Director to represent Intelsat, replacing Mark Daniels. The SDA was set up in 2009 by the international commercial satellite operator community to coordinate activity and safeguard space-based infrastructure in the space environment in which satellites are operating.

Mike Antonovich Appointed CEO of Eutelsat Americas

April 26, 2017 - Eutelsat Communications announced that Mike Antonovich is joining Eutelsat Americas as Chief Executive Officer. Mike Antonovich, a longtime satellite and telecommunications industry executive, began his career at ESPN as a broadcast engineer. He held a number of sales and marketing functions during a lengthy career at PanAmSat, including leading PanAmSat's global sales team. He has more recently been CEO of Genesis Networks, Senior Vice President for the Americas for ATEME and Senior Vice President Global Sales for Global Media Links in Japan. He will leverage his broad experience across media, broadcast and telecoms markets to steer Eutelsat Americas' activities within the Americas and serve Americas-based clients using Eutelsat's global satellite fleet.

Erwin Hudson Joins Telesat to Lead Global LEO Satellite Program

April 27, 2017 - Telesat announced that Erwin Hudson, one of the industry's most accomplished executives in the field of satellite-enabled broadband networks, has joined the company as Vice President, Telesat LEO, reporting to President and CEO, Dan Goldberg. Hudson will be based at Telesat's headquarters in Ottawa and direct the development and implementation of Telesat's planned advanced, high throughput, low latency, global LEO constellation. As previously announced, Telesat has obtained priority ITU rights on a global basis to LEO Ka-band spectrum and has developed an innovative (patent pending) constellation design and system architecture. In addition, Telesat has procured two prototype LEO satellites that are scheduled for launch later this year as part of the test and validation phase of its LEO initiative. Hudson has had a long and distinguished career in the satellite industry. A highly experienced communications engineer, he was Chief Technology Officer of WildBlue, an early satellite broadband provider later acquired by ViaSat, that began building its U.S. subscriber base using Ka-band spot beam capacity on Telesat's Anik F2 satellite.

Yohann Leroy Appointed Deputy CEO of Eutelsat Communications

April 28, 2017 - The Board of Directors of Eutelsat Communications has appointed Yohann Leroy Deputy CEO in addition to his function as Chief Technical Officer, alongside Michel Azibert, Deputy CEO and Chief Commercial and Development Officer. Yohann joined Eutelsat in 2010 as Director of Strategy before assuming the role of

Director of Engineering in 2013 and Chief Technical Officer in 2014. An engineer of the École des Mines and graduate of the École Polytechnique, he was technical advisor for Industry and Information Technology in the office of the French Prime Minister from 2007 to 2010. This followed four years as head of the industrial development department at the Île de France regional division for industry, research and the environment.

REPORTS

WTA Publishes Satellite Operator Benchmarks 2017 Research Report

April 3, 2017 - The World Teleport Association (WTA) released Satellite Operator Benchmarks 2017, a new research report. This is the seventh report in WTA's annual Satellite Operator Benchmarks series, for which FutureSource provides the field research. With the Satellite Operator Benchmarks series, WTA examines the crucial relationship between teleport operators and satellite operators. WTA seeks to keep that relationship healthy and strong by informing teleport operators about how their peers view the principal satellite operators while at the same time providing objective feedback to those operators from an important customer group. By objectively tracking, rating and comparing the operational and commercial performance of satellite operators, as experienced by teleport operators, WTA seeks to strengthen the industry by driving self-improvement across all companies.

NSR Releases Satellite Operator Financial Analysis (SOFA), 7th Edition

April 12, 2017 - NSR's Satellite Operator Financial Analysis, 7th Edition (SOFA7) is the industry's leading financial analysis of the satellite operator business, across both traditional FSS capacity and emerging HTS markets. With the rapid technological changes in the satcom industry, the financial side has felt equity rapid changes. This new edition expands on previous NSR SOFA reports through enhanced individual operator analysis, as well as findings on the Key Performance Indicators (KPIs) for HTS, the industry's growth driver moving forward.

NSR's Big Data via Satellite Report

April 27, 2017 - NSR's Big Data via Satellite report provides a complete state-of-the-market analysis and revenue forecasts of Big Data from satellite services. Report provides a complete state-of-the-market analysis and revenue forecasts of Big Data from satellite services for both Satellite Communications and Satellite Earth Observation markets. The focus of this report is primarily on the revenue opportunity for both data-capture and analytical services that companies can provide by adopting a Big Data approach, where satellite is one of the sensors in the ecosystem. The business models that companies are adopting are reviewed and a 360-degree qualitative analysis of each vertical market helps readers determine if the promise of Big Data from satellite-based services will be matched by market development and revenue opportunity.

UPCOMING EVENTS

Australasia Satellite Forum 2017, 2-3 May 2017, Sydney, Australia,
<http://talksatellite.com/ASF2017%20Agenda.html>

The 6th Inflight Connectivity Technology Conference (ICT 2017), 10-11 May 2017, Shanghai, China,
www.iricht.com

MilSatCom Asia Pacific 2017, 15-16 May 2017, Singapore, www.milsatcomasia.com

As space is becoming more congested, contested and competitive, it is critical to look at how SatCom is utilized to gain the upper hand in the frontier that is crucial for future combat. By bringing you latest updates from regional experts such as The Republic of Korea Armed Forces, US Air Force, Indian Armed Forces, Indonesian MoD, New Zealand Defence Force and Canada Maritime Forces Pacific Headquarters among others, as well as key industry vendors such as Hughes Network Systems, this year's conference will equip you with the tools to enhance your SatCom capabilities for effective military communications.

CASBAA Satellite Industry Forum, 22 May 2017, Singapore, <http://casbaaevent.com/events/casbaa-satellite-industry-forum/>

CommunicAsia2017, 23-25 May 2017, Singapore, www.communicasia.com

SatComm2017 @ CommuicAsia2017, 23 May 2017, Singapore, www.communicasia.com

Global Space Exploration Conference (GLEX), 6-8 June 2017, Beijing, China, <http://glex2017.org/>

VIETNAM ICT COMM 2017, 7-9 June 2017, Ho Chi Minh City, Vietnam, www.ictcomm.vn

World Satellite Business Week, 11-15 September 2017, Paris, France, www.satellite-business.com/en

IBC 2017, 14-19 September 2017, Amsterdam, the Netherlands, www.ibc.org

ITU Telecom World 2017, 25-28 September 2017, Busan, Korea, <http://telecomworld.itu.int/>

ITU Telecom World 2017 in Busan, Republic of Korea, from 25 to 28 September, hosted by the Ministry of Science, ICT and Future Planning (MSIP). The event is the global platform where policy-makers and regulators meet industry experts, investors, and SMEs to exhibit solutions, share knowledge and network at the highest level. The event focus on global opportunities of smart digital transformation, including smart ABC (AI, Banking, and Cities) – five pillars: exhibition, forum, Awards, Business Matching, and side events.

APSCC 2017 Satellite Conference Exhibition, 10-12 October 2017, Tokyo, Japan, www.apsc2017.com

Communic Indonesia 2017, 25-27 October 2017, Jakarta, Indonesia, www.communicindonesia.com

Editorials and Inquiries

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

Inho Seo, Editor, APSCC Publications
Asia-Pacific Satellite Communications Council (APSCC)
T-1602, 170, Seohyeon-ro, Bundang-gu, Seongnam-si,
Gyeonggi-do 13590, Rep. of KOREA
Tel: +82 31 783 6247 Fax: +82 31 783 6249
E-mail: inho_seo@apsc.or.kr Website: www.apsc.or.kr

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.