

APSCC Monthly e-Newsletter

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

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SATELLITE BUSINESS

SES Networks and GTMaritime Launch New Connectivity Service

June 2, 2017 - SES and GTMaritime, a specialist in providing communication solutions and services to the maritime industry, announced a partnership to provide a new volume-based service package for regional maritime connectivity. The new SES Networks Maritime+ Regional Connectivity service, leveraging SES's extensive satellite fleet and ground infrastructure, will be marketed by GTMaritime under the name GTLitespeedMAX as part of their airtime portfolio. The service provides customers with a set price, fixed volume, regional VSAT solution and is perfect for offshore supply vessels, fishing vessels, ferries and RoRo ships, barges, cargo carriers, leisure craft, dredgers and yacht management companies and will be available across European waters and in the Middle East.

Singtel Satellite Wins Satellite Operator of the Year Award Three Years in a Row

June 2, 2017 - For the 3rd consecutive year, Singtel Satellite clinched the coveted award at the Asia Communications Awards (ACA) organized by Total Telecom at Singapore Marriott Tang Plaza Hotel on 24 May 2017. This year, the judges were impressed by Singtel Satellite's work on cyber-security and working with partners in the emerging market and maritime sector. Cyber security is a pressing issue with the proliferation of cyber-attacks causing increasing damage to companies, governments and individuals. The Maritime industry which relies heavily on technology across all fronts from onshore and shipboard operations to navigation at sea, is similarly susceptible to cyber-breaches. Singtel and Inmarsat entered into a strategic partnership to offer a fully managed security service, using Trustwave's Unified Threat Management (UTM) solution. Trustwave, the cyber security arm of Singtel, provides the software-based UTM service which is integrated with Inmarsat hardware onboard ships, to protect data and reduce cyber risk for maritime companies.

HughesNet Gen5 Surpasses 100,000 Subscribers in just Two Months

June 6, 2017 - Hughes Network Systems, LLC announced its recently launched HughesNet Gen5 satellite Internet service has reached a major milestone in just two months – now serving more than 100,000 homes and small businesses, including both new subscribers and upgrades, and subscribers in every continental U.S. state have been connected to the service. Launched in late March 2017, new customers to HughesNet Gen5 are experiencing faster speeds, more data, built-in Wi-Fi and an overall improved Internet experience. HughesNet Gen5 is the first and only U.S. satellite Internet service to offer Federal Communications Commission (FCC) defined broadband speeds – 25 Mbps download and 3 Mbps upload – from coast-to-coast.

Gogo Reaches 200 Installations of its 2Ku Technology

June 6, 2017 - Gogo, the leading global provider of broadband connectivity products and services for aviation, has reached a milestone of 200 installations of 2Ku, the industry's leading inflight connectivity technology. The company now has installed the technology on many major fleet types including Airbus' A319, A321, A330 and A340 aircraft; and Boeing's 737-800 and 747-400 aircraft. For the first time, passengers flying in all regions of the world are now experiencing high-speed inflight internet. Gogo currently has 14 airlines representing more than 1600 aircraft awards for the 2Ku technology.

SES Networks to Provide Connectivity across Burkina Faso

June 7, 2017 - SES has been selected to lead a project to extend high-speed communications infrastructure throughout Burkina Faso. SES Networks will be providing the full end-to-end solution, including wireless terrestrial communication and integration with the available optical fiber backbone, to connect 881 sites for e-government, education and health across Burkina Faso. In order to enhance connectivity in the landlocked country, SES Networks will be using high throughput, low latency satellite capacity via its Medium Earth Orbit (MEO) fleet, and will provide managed service and maintenance support from Luxembourg, and through a local presence in Burkina Faso. The solution is specifically designed for the Support Programme of the Reinforcement of Communication Infrastructures (PARICOM) and supports the Burkina Faso e-governance policy through a Luxembourg development cooperation project. This project is part of the Indicative Cooperation Programme established for the period 2017-2021 between Luxembourg and Burkina Faso. It aims to improve the quality, reliability and accessibility of IT and communication infrastructure throughout the country.

Intelsat Opens Office in Nairobi, Kenya

June 7, 2017 - Intelsat announced the opening of a new sales office in Nairobi, Kenya. Intelsat's Nairobi office will further enhance the company's responsiveness to its customers, the leading communications services and media companies operating in the East Africa region. The new office will be managed by industry veteran, Lawrence Mungai. Mungai brings a wealth of industry experience, working most recently in the telecommunications sector for WestConAfrica. He will work with a team of innovative sales and technical professionals who are well versed in the region's connectivity demands. Working closely with our regional customers and partners, East Africa is poised to benefit from the innovative broadband connectivity solutions coming to market. In particular, Intelsat launched its next generation Intelsat Epic^{NG} high throughput satellite platform in 2016. Intelsat 33e, the second Epic^{NG} satellite, began to serve Africa in January 2017. As the largest provider of commercial satellite services to the African continent with twenty two satellites, Intelsat seeks to further bridge the digital divide by driving innovation across the satellite ecosystem and providing solutions that address complex communications challenges facing wireless infrastructure, banking and enterprise networks.

Airbus Provides German Troops with Support Communications at 15 Sites Worldwide

June 7, 2017 - Airbus has successfully rolled out support communications to German Armed Forces (Bundeswehr) troops deployed to military bases in Lithuania. Labelled "Connect-D", Airbus now supplies telephone, internet and media services to a total of 15 deployed Bundeswehr units around the world, including Mali, Iraq, Djibouti, Afghanistan, Kosovo, Cyprus and Lithuania. The launch of Connect-D at the Lithuanian bases of Rukla and Pabrade was performed as part of a framework contract awarded by the Bundeswehr in 2015. This framework contract ensures that soldiers have free connectivity during operations and exercises outside Germany to stay in contact with family and friends. Mobile systems will also be made available for smaller contingents and observer missions.

High Performance from Cobham Antennas in Epic^{NG} Tests

June 7, 2017 - Cobham SATCOM's SAILOR and Sea Tel antennas have been used by one of the world's leading maritime VSAT service providers, Marlink, to test the upper limits of throughput on the new Intelsat 33e (IS-33e) satellite. The testing at Marlink's Eik teleport included Cobham SATCOM's Sea Tel 9711 IMA, Sea Tel 6012 VSAT and SAILOR 900 VSAT High Power systems, all of which demonstrated high throughput capabilities. IS-33e is the third of seven new High Throughput Satellites (HTS) that power Intelsat's next generation Epic^{NG} network, an exciting new platform for very high-speed maritime broadband. The purpose of Marlink's IS-33e testing was to verify throughput for diverse maritime antennas from major manufacturers on the latest Epic^{NG} satellite, which is located at 60° East, providing seamless spot beam coverage between Asia and Europe. Epic^{NG} is a key component of Marlink's multi-band global Sealink network, which seamlessly combines multiple communication carriers to provide the best available link based on pre-defined parameters set and managed by the customer.

MarineFields and Inmarsat Sign MOU to Digitalize Port Call information

June 8, 2017 - MarineFields and Inmarsat have signed an MOU to partner in investigating how sea traffic management and satellite connectivity can make port calls more efficient for all stakeholders through improved information sharing, situational awareness, optimized processes, and collaborative decision making. The joint effort will be focused on providing a marketplace for port call optimization services resulting in just-in-time operations and shortened turn-around times. Perseus PortCDM will connect the various stakeholders involved in, or related to, sea transport, including vessels, shipping companies, ports, terminals, and hinterland operators. The aim of the project will be to focus on enhanced standardized data sharing, and enable third party providers to bring new and innovative services to key stakeholders in the maritime industry. MarineField's Perseus PortCDM will utilize the Inmarsat satellite network infrastructure, specifically Fleet Xpress, which now has over 10,000 committed vessels and FleetBroadband which currently has around 40,000 active terminals on vessels across the world.

Cobham Satellite and Radio Comms for Six Newbuild CBO ships

June 8, 2017 - Companhia Brasileira de Offshore (CBO) has chosen Cobham SATCOM VSAT and Satellite TV (TVRO) antennas in addition to radio communication equipment for installation on six new Offshore Support Vessels (OSV). CBO's state-of-the-art new OSVs have been commissioned to fulfill development contracts offshore Brazil and will be entering service during 2017 and 2018. The Cobham SATCOM equipment has been installed and is already supporting operations on the first of the new OSVs, with installation aboard the second vessel scheduled this month. Installation on the remaining four vessels, which are still in production at Oceana Shipyard in Itajaí, located in the state of Santa Catarina - Brazil, is due to take place throughout 2017.

Globecomm Expands Global Ku-Band VSAT Footprint to Offer Industry-leading Network Coverage

June 8, 2017 - Globecomm announced the further expansion of its Ku-band VSAT network, serving enterprise, maritime and government markets around the world. Globecomm's Ku-Band VSAT network – which includes a footprint over the Barents Sea, North of Scandinavia – will be extending its coverage by adding the South Indian Ocean passage between the southern tip of Africa and Australia. Globecomm VSAT customers have increased transit to these areas in recent months, leading the company to invest in the extended coverage. The expanded network will provide 100% coverage of all major shipping routes to address new market demands. Globecomm's international network consists of multiple teleports connected by high-capacity, redundant fiber to the world's major telecom points of presence. The company's C and Ku-band capacity covers the major land masses and shipping lanes to provide seamless global coverage for media, telecom, government, maritime and enterprise applications. For maritime customers, Globecomm VSAT provides hardware (purchased or leased), systems integration, satellite bandwidth, and lifecycle support services.

Intelsat and Dalkom to Expand Broadband, Media Options for Customers in Africa, Middle East

June 9, 2017 - Intelsat S.A. announced that Dalkom Somalia signed an agreement for satellite services that will expand its broadband enterprise and direct-to-home (DTH) services in East and Central Africa and the Middle East. Under a multi-year agreement, Dalkom, a privately owned operator based in Somalia, will incorporate Ku-band satellite services provided by Intelsat 17 to extend services currently delivered by its fiber network. This includes expanding broadband enterprise networks into countries such as South Sudan and Democratic Republic of the Congo, as well as the Middle East. Dalkom will also add DTH services to its portfolio in Somalia. Intelsat 17, located at 66° East, is part of Intelsat's video neighborhood in the Indian Ocean region.

Speedcast Boosts Commitment to Inmarsat's Ka-band Services for High-end Vessels

June 13, 2017 - Speedcast International has signaled growing industry acceptance for Global Xpress-powered services from Inmarsat by adding more than 350 ships to the service roll-out plans it announced one year ago, including a number of high-end vessels in the energy, cruise and leisure markets. Adding to the initial commitment to deploy Fleet Xpress onboard approximately 2,000 vessels over five years, the additional provision has been agreed to satisfy healthy demand from Speedcast's more bandwidth-hungry vessels in cruise and leisure markets, which could also use a stand-alone Global Xpress service to satisfy bandwidth demand. Alongside the addition of the high-end vessels, Inmarsat is also broadening its commercial partnership with Speedcast in the Greek maritime market, further to the strategic alliance formed last summer. Speedcast provides complete managed communications and IT solutions in the Cargo, Offshore, Cruise and Fishing vessel sectors. It recently became the first Inmarsat partner to integrate the digital base platform (formerly known as SoftNSD) into its service offering. This allows Speedcast to offer value added solutions and applications over its own SIGMA Gateway, encouraging third party application providers to develop innovative, content-rich applications over Fleet Xpress.

SES Networks Adopted Comtech EF Data's Heights™ Network Platform for its Hybrid Resiliency Solution

June 14, 2017 - Comtech EF Data Corp., which is part of Comtech's Commercial Solutions segment, has installed a Heights Network Platform for SES Networks' hybrid resilience solution. SES Networks will use the Heights Network Platform to deliver high-availability services to its premium customers in Asia-Pacific. The fully-managed solution leverages the wide coverage of Geostationary Earth Orbit satellites and low latency capabilities of Medium Earth Orbit satellites to provide diverse network paths that are vital in the delivery of carrier-class services. When operational, this resilient solution will enable the use of the best choice path for traffic, whether an alternative path for all of the traffic, or for traffic of the highest value. SES Networks is the newly-formed data-centric business unit of SES, the world-leading satellite operator. Designed with the service provider in mind, Heights is a scalable satellite networking platform that meets the evolving demands of a diverse multi-tenant end user community.

Cobham Delivers Next Generation Flight Deck Connectivity for United Airlines

June 14, 2017 - Inmarsat and Cobham SATCOM announced that United Airlines will participate in a technology evaluation of SwiftBroadband-Safety (SB-S), Inmarsat's next generation flight deck communications platform. SB-S will be evaluated on four United Airlines' Boeing 767 aircraft, which will be installed with Cobham's AVIATOR 300D satcom system. It offers global, high-speed, secure connectivity for the flight deck. Enabling powerful and flexible communications with real-time inflight information, the service enhances airline safety, asset utilization, security, and operations. United Airlines' evaluation of the IP-based broadband service is part of the aviation giant's ongoing commitment to best-in-class operations, safety and service. During this evaluation, United Airlines will deploy its equipped planes in the highly congested North Atlantic airspace. It will use the new platform for communications and surveillance with Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance Contract (ADS-C) messaging.

Lockheed Martin Taps ViaSat's Datalink Communications System for the U.S. Navy

June 14, 2017 - ViaSat Inc. received a follow-on contract from Lockheed Martin to deliver datalink communications for the integration and test phase of the U.S. Navy's Long Range Anti-Ship Missile (LRASM) program. The contract calls for ViaSat to provide Weapon Data Link (WDL) L-Band Units (LBU) to support the overall missile test program's datalink communications requirements, as well as engineering support for software enhancements and flight test support. The LRASM program is the key pillar of the U.S. Navy's Offensive Anti-Surface Warfare (OASuW) effort to improve its ability to engage and destroy high-value targets from extended range. The ViaSat datalink solution will enable the LRASM weapon system to communicate with launch platforms and provide growth opportunities in the future.

Orange Central African Republic and SES Networks Partner to Reinforce Connectivity in Country

June 15, 2017 - SES and Orange Central African Republic, a leading provider of corporate telecommunications and one of the largest mobile and internet services operators, announced today an agreement to provide connectivity services in the Central African Republic. Orange will be using SES Network's IP Transit solution to deliver faster 3G services and better-quality internet connections for enterprises. The solution will be delivered by SES Networks, using its Medium Earth Orbit fleet and extensive ground infrastructure. It will allow customers of Orange Central African Republic to enjoy unparalleled availability and speed of internet services, never experienced before in the country. With this new service, Orange Central African Republic will enhance the performance of the local telecommunications sector, and bring seamless connectivity to hundreds of thousands of Central Africans.

SES Transfers Capacity from AMC-9 Satellite Following Significant Anomaly

June 19, 2017 - SES announced that, following a significant anomaly, the company is in the process of transferring capacity from its AMC-9 satellite. The incident was noted on the morning of Saturday, 17 June 2017. SES has taken immediate action in contacting all customers and is working to transfer services to alternative satellite capacity in order to minimize disruption. AMC-9 provided Ku-band and C-band coverage over the U.S. and Mexico. The satellite was manufactured by Alcatel/Thales and was launched in 2003. SES is working closely with the manufacturer to establish the cause of the anomaly and is evaluating all satellite recovery options. The full impact of the anomaly is still being assessed.

Thales Alenia Space Takes Stake in Airstar Aerospace

June 19, 2017 - Thales Alenia Space, the joint venture between Thales (66%) and Leonardo (33%), a major player in the market for satellites, scientific spacecraft and orbital infrastructures, confirmed its acquisition of a minority stake in French company Airstar Aerospace, a leader in the construction of airships and flexible

structures of all types and operating at all altitudes. Through this strategic partnership, the two companies will be able to address certain technological roadblocks on Stratobus™, a project to develop an autonomous HAPS [High Altitude Platform System] type airship. Launched in 2015 by Thales Alenia Space, the project will benefit from the two partners' respective areas of expertise, with a flight prototype expected to be ready towards 2020. Thales Alenia Space's equity investment ensures the development of Stratobus™ by calling on the expertise of Airstar Aerospace, unrivaled in Europe, concerning the design of smart, high-performance and connected airships.

International Space University and NSR Sign a Cooperation Agreement

June 19, 2017 - For many years, the International Space University (ISU) and Northern Sky Research, LLC (NSR) have had a close working relationship. During this time several ISU alumni have been recruited by NSR, where ISU alumnus & lecturer Claude Rousseau is a Research Director. In recent years, the ISU-NSR cooperation has been extended with NSR offering internships to MSS participants, which not only have provided ISU students with a great opportunity for real world experience with one of the top space and satellite industry consultancies; it has also assisted those interns to transition into full time Analysts upon graduation from ISU. The ISU-NSR relationship has now been strengthened by a formal agreement, which provides for closer interaction in fields like recruitment, internships and lecturing by NSR specialists.

Hughes Launches Affordable Integrated Broadband and 4G Network Platform

June 20, 2017 - Hughes Network Systems, LLC (Hughes) announced the addition of the Fortinet FortiGate 30E to its portfolio of managed network equipment. The FortiGate 30E is an ideal answer for financial, retail petroleum, convenience store, and restaurant businesses seeking an integrated and highly secure, single-device broadband solution at their retail locations. The FortiGate 30E is available as part of the HughesON™ suite of industry-leading managed network services, which combine broadband connectivity, installation, provisioning, and on-site support. It can also be self-installed for those merchants who prefer to implement and maintain their own equipment, using Internet service from a local provider. Either way, customers will gain the enterprise-grade performance, security, and support that Hughes provides to all of its customers.

SES and Telenor Maritime Provide High-speed Connectivity to Silversea Cruise Ships

June 20, 2017 - Telenor Maritime has signed a multi-year agreement to provide high-speed broadband access to Silversea's luxurious cruise ships via SES Networks' Maritime+ solution. Telenor Maritime will be using SES Networks' fully-managed maritime solution to offer capacity of up to 150Mb/s to provide passengers on Silversea's ultra-luxury cruise ships a true broadband experience at sea. Passengers onboard these eight ships will be able to stay connected through social network accounts, audio and video conferencing apps, and will also be able to stream video as they sail to the most exotic travel destinations ranging from the tropical paradise of Brazil to the epic wilderness of Antarctica. Designed especially for service providers, the SES Networks Maritime+ solution combines SES's product innovation with unparalleled global ground and space infrastructure to deliver consistently high-quality connectivity as vessels sail across the region, and allows for upgraded coverage and service as needed. SES Networks is a newly-created SES business unit focused on delivering differentiated satellite-enabled solutions for data-centric customers.

Thales and Inmarsat Successfully Concluded Tests for Global Xpress High-capacity Steerable Antennas

June 20, 2017 - In May 2017, Inmarsat and Thales executed a series of tests that successfully demonstrated communications using Thales' System 21 on Inmarsat's Global Xpress (GX) high-capacity steerable antennas. These tests illustrate the ability of Thales's System 21 modem to support resilient, protected and secure, high-data-rate connectivity for mission-critical military and government users. The tests demonstrated excellent performance of the Thales' System 21 satcom ground network solution, featuring special military modes to enhance resilience and protection utilizing the Inmarsat5 high-capacity steerable beam assigned to the tests. Data rates over 34Mbps were delivered between a 1.5m maritime (SURFSAT-L) and 0.75m airborne (LISA) terminals. This configuration is representative of a typical deployed mobile task force. The conclusive test campaign was completed in a very short space of time. The conformity to international military standards ensured that the Thales network and Inmarsat's satellite service were able to interoperate without any modifications, despite neither system having been designed to support the other.

Signalhorn Lands Contract for TurkStream

June 20, 2017 - Signalhorn, a leading provider of hybrid networks, has successfully negotiated a contract for the TurkStream Offshore Pipeline project to provide VSAT services. TurkStream will consist of two offshore gas pipelines from Russia to Turkey delivering 31.5 billion cubic meters of natural gas annually. TurkStream is currently being constructed in the Black Sea. Signalhorn has over 40 years of experience providing mission

critical services for key operators in the Oil & Gas market. Working with TurkStream will further extend Signalhorn's services between the two continents. South Stream Transport BV (SSTTBV) from the Netherlands is responsible for the construction of TurkStream. SSTTBV is a subsidiary of Gazprom.

South Australian Firm Plans IoT Dedicated Small Satellite Fleet

June 21, 2017 - South Australian remote Internet of Things specialist Myriota is deploying a 30-site trial network across the country as it prepares for long term plans to launch its own IoT dedicated small satellite network. The firm is deploying water monitoring devices at key pastoral properties around the country in the next few weeks as a proof of concept for plans to take advantage of the changing economics in the satellite sector and launch its own fleet. Myriota has developed its own low-cost monitoring devices as part of a project co-funded by the Australian and New Zealand CRC for Spatial Information. The units contain transmitters that allow for information to be transferred directly to low-earth orbit satellites. While other companies have proposed satellite-based IoT using ground infrastructure, Myriota is pioneering the direct-to-orbit model that transfers small amounts of data directly to the satellite. The platform currently uses satellites from Canadian provider ExactEarth, an early seed investor in the company.

Inmarsat and Airbus to Provide Airlines with European Aviation Network (EAN) Deployment Package

June 21, 2017 - Inmarsat announced a strategic partnership for its new European Aviation Network (EAN) inflight broadband service with leading aircraft manufacturer Airbus. As part of a collaborative agreement signed at the Paris Air Show, Airbus will offer airlines a specialist retrofit solution to deploy EAN on the entire A320 family of aircraft, including A319s, A320s and A321s, which form the backbone of many leading airline fleets in Europe. The agreement marks a further milestone in the development of EAN; the world's first dedicated aviation connectivity solution to combine space-based and ground-based networks to deliver a seamless WiFi experience for airline passengers throughout Europe. It follows a separate announcement earlier this year that International Airlines Group (IAG), the parent company of Aer Lingus, British Airways, Iberia and Vueling, will be the launch customer for EAN. IAG has begun equipping its aircraft with the ground-breaking service and aims to have 90% of its short haul fleet complete by early 2019.

Mitsubishi Electric, Nokia Bell Labs, UC San Diego Develop World's First Ultra-fast GaN Envelope-Tracking Power Amplifier for Next-generation Wireless Base Stations

June 21, 2017 - Mitsubishi Electric Corporation, Nokia Bell Labs and the Center for Wireless Communications at UC San Diego announced their joint development of the world's first ultra-fast gallium nitride (GaN) envelope-tracking power amplifier, which supports modulation bandwidth up to 80MHz and is expected to reduce energy consumption in next-generation wireless base stations. To help meet the demand for increasing wireless capacity, mobile technologies are shifting to next-generation systems that use complex modulated signals with large peak-to-average power ratio (PAPR) and extra-wide modulation bandwidth. This will require power amplifiers to operate most of the time at backed-off power levels that are well below their saturation levels. Generally, power amplifiers achieve high efficiency near their saturation power levels, but significantly degraded efficiency at backed off levels, as in the case of 4G LTE signals (>6dB PAPR). Envelope-tracking power amplifiers have been studied extensively as a means to enhance power-amplifier efficiency, but so far the supply-modulator circuit has been the bottleneck limiting modulation bandwidth for advanced wireless communications, such as LTE-Advanced.

Thuraya IP M2M Service Launched to Connect the Internet of Remote Things

June 21, 2017 - Thuraya Telecommunications Company announced the launch of the Thuraya IP M2M Service to support high volume, high throughput machine-to-machine (M2M) applications. The service is powered by Thuraya's real-time, two-way IP network with speeds of up to 444 Kbps, a state-of-the-art Remote Terminal Management (RTM) platform and the Thuraya IP+ terminal. The new service extends the capabilities of Thuraya's successful IP+ terminal to support a wider range of M2M applications. It is designed for efficient communication between devices and for the control and consolidation of data from remote equipment. The service targets a number of sectors including oil and gas, utilities, renewable energy, banking and government. The RTM platform provides a rich set of connectivity management features including usage monitoring, connection control, abnormal session management, geo-fencing, firewall management, usage traffic graphs and charts. Its device management features allow users to view a connected terminal's position, signal strength and current status. Users can also reboot and configure the terminal remotely.

Launch of Eutelsat's Konnect Africa Broadband Service

June 22, 2017 - The Konnect Africa broadband venture set up by Eutelsat Communications has this month officially launched new-generation services, starting in Benin, Cameroon, Kenya, Lesotho, Nigeria, South Africa,

Swaziland, Tanzania and Uganda. Konnect Africa's innovative service offerings and products, including packaged offers inspired by 'pay as you go' models and Wi-Fi hotspot schemes, are fully aligned with the needs and preferences of end-users in these different markets. First partners include local operators, telecom companies and resellers, notably AfrikaNet GoSat (Cameroon, Côte d'Ivoire), Bentley Walker (multiple African markets), Bloosat (Cameroon, Central Africa), Coolink (Nigeria), Global Broadband Solution (Democratic Republic of Congo), Terrace Projects (South Africa), Ubora Systems (Kenya), as well as China Telecom that is establishing communications links between the African continent and the Asia-Pacific region. These partners will benefit from dedicated commercial, marketing and technical support from Konnect Africa and training aimed at enhancing service quality. Konnect Africa is initially using capacity on Yahsat's Al Yah 2 satellite (16 Ka-band spotbeams) with expansion supported by a further 18 spotbeams on the Al Yah 3 satellite that is scheduled for launch by the end of 2017. Konnect Africa aims to cover most of Sub-Saharan Africa by 2019.

EchoStar Teams up with Thales for Mobile Satellite Service in Europe

June 22, 2017 - EchoStar Mobile and Thales will be collaborating to jointly develop advanced mobile satellite voice and data services in France and throughout Europe. This collaboration will focus on developing end-to-end mobile satellite and terrestrial solutions for Public Protection and Disaster Relief (PPDR), as well as the development of specialized mobile satellite and terrestrial terminals. The EchoStar XXI satellite, launched the 8th of June 2017, will provide EchoStar Mobile with an S-band mobile satellite network that will cover all of Europe, including the 28 member states of the European Union. The companies will also collaborate in the exploration and development of solutions to enhance the performance and robustness of PPDR connectivity utilizing S-band spectrum, including a possible complementary ground component.

Cobham SATCOM's SAILOR 900 VSAT Systems Selected for Winning Fleet Optimization

June 23, 2017 - Singaporean shipowner and operator Winning International Group will deploy SAILOR 900 VSAT antenna systems from Cobham SATCOM across its fleet of 30 bulk carriers. The decision to provide high-speed always-on connectivity was driven by a desire to improve crew welfare and explore new opportunities for optimizing vessel operation. The contract was signed between the operator's business unit in Qingdao, China and Dalian Landsea Electronic System Co. Ltd., a key Cobham SATCOM partner since 2010, also based in China. The SAILOR 900 VSAT is an advanced three-axis stabilized Ku-band antenna system designed and built specifically for maritime applications. Recognizing that ships have tight constraints on available maintenance time when in port, it is supplied ready-to-go with standardized components and has only a single cable running between the antenna and below-deck unit.

SES Networks and Primacom to Deliver High Speed Broadband Connectivity to Vessels in Asia-Pacific

June 26, 2017 - SES has signed a multi-year agreement with leading Indonesian satellite communications provider Primacom (PT Primacom Interbuana). Primacom will use SES Networks' Maritime+ service to deliver the highest levels of reliable high-speed broadband connectivity to vessels operating in Asia-Pacific region. The innovative fully-managed service will enable Primacom to double broadband speeds for connecting vessels traversing international and domestic maritime routes within the Asia-Pacific region. SES Networks' Maritime+ service combines SES's global ground and space infrastructure to deliver the highest levels of reliability and connectivity to vessels that are seeking connected and autonomous shipping operations.

Save the Children Renews Contract with Speedcast for Connectivity across 40+ Sites in Africa

June 27, 2017 - Speedcast International Limited announced that Save the Children International (SCI), a leading international non-government organization (NGO) with its central office in London has awarded Speedcast a contract to provide connectivity to a network of 40+ sites in Africa. Recognized for their humanitarian work around the world, Save the Children's mission has always been to save lives by preparing for and responding to humanitarian emergencies caused by natural disasters, disease outbreaks and armed conflicts. The organization ensures that children affected by calamities receive life-saving medical aid, shelter and education. Speedcast provides C-band virtual network operator (VNO) services which allow Save the Children to allocate pooled bandwidth across their sites. This solution efficiently matches Save the Children's requirements for flexibility and scalability while accommodating their growing demand for cloud applications. This has enabled Save the Children to provide a reliable service to their sites over the past three years.

SES Restores Capacity from AMC-9 Satellite

June 27, 2017 - SES has been able to draw on its global satellite fleet of over 50 geostationary satellites to rapidly restore customers' capacity following a significant anomaly affecting the AMC-9 satellite on Saturday 17 June 2017. SES immediately engaged with customers and was able to quickly offer a restoration capacity plan to

transfer services to alternative satellites and minimize disruption. By late evening on Sunday 18 June 2017, the majority of the traffic had already been restored. With the benefit of its global satellite network, SES was able to adjust its fleet deployment plan and offer solutions to affected customers with the use of existing assets. SES is currently taking steps to relocate additional assets to 83 degrees West, to support customers' requirements.

Intelsat and Gilat Unveil Mobile Reach Solar 3G Solution for Mobile Network Operators

June 29, 2017 - Intelsat S.A. and Gilat Satellite Networks Ltd. announced a joint managed services solution to provide 3G infrastructure in the most remote locations around the globe, where terrestrial services are not feasible. Mobile Reach Solar 3G, the newest addition to the IntelsatOne portfolio of managed and terrestrial services, is an end-to-end managed solution for mobile network operators (MNOs) who want to expand their service footprint efficiently into ultra-rural regions where traditional network buildouts are uneconomical. The turnkey, solar-powered package combines Intelsat connectivity, including services from the Intelsat Epic^{NG} high-throughput satellite (HTS) platform, bundled with Gilat's industry proven VSAT system for small cell and cellular backhaul. The combination provides everything an MNO needs to expand 3G service over a 2.5-kilometer radius, including power supply, mono-pole, and all satellite and cellular equipment.

Speedcast Launches Innovative SIGMA Gateway to Deliver Secure Virtualized Server Environments

June 29, 2017 - Speedcast International Limited announced the release of SIGMA Gateway, a new network device capable of managing Speedcast's global VSAT, L-Band, Fleet Xpress, 4G/LTE and Wi-Fi services. SIGMA Gateway delivers the high availability and performance of Fleet Xpress in a secure and integrated environment via the integrated Inmarsat type-approved Soft Network Service Device (SoftNSD). SIGMA Gateway provides a secured virtualized environment where third party virtual machines (VM) can be hosted. VMs are completely managed via the SIGMA Portal, allowing for remote configuration and dedicated resource allocation. This ensures that the VMs always operate with maximum efficiency and in a secure environment independent of each other. SIGMA Gateway offers flexible crew services, including combined pre-paid PIN-based internet and voice calling services, allowing for simplified voucher generation and management from shore.

BROADCASTING

Thaicom, Huawei and Starcor Sign MOU for the Development of OTT Broadcasting Service in Thailand

June 6, 2017 - Thaicom Public Company Limited announced that it has signed a memorandum of understanding (MOU) with Huawei Technologies (Thailand) Co., Ltd. and Starcor Media Technologies Limited for the development of an OTT (Over-the-Top) platform in Thailand. The companies have partnered to create value-added services for the next generation OTT platform for enterprise, educational, government and telecom sectors in Thailand. Under the agreement the companies agreed to develop content-rich OTT ecosystem services, including TV streaming and video on demand. The creation of this joint OTT ecosystem will benefit telecom operators in Thailand, who will be able to seamlessly integrate the OTT services with their products and deliver their contents to multi-screen devices such as smart TVs, smart phones, tablets and notebooks. Under the MOU, Thaicom shall provide the network connectivity and data center services for Huawei and Starcor.

SES Video Enables MultTV's ISP Customers to Deliver Pay-TV Content to IP Subscriber Homes

June 6, 2017 - SES and MultTV announced a multi-year capacity agreement which will enable MultTV's ISP customers to deliver TV content to their Internet subscribers via IP. MultTV, a Brazilian communications company that specializes in providing video services to smaller regional Internet Service Providers, will use C-band capacity on SES-6 to transmit a mix of approximately 60 SD and HD channels to its ISP customers, who will in turn distribute the content to their subscribers. The partnership will allow MultTV's ISP customers to enhance the offer to their subscribers by adding TV content to their broadband services. All TV signals will be transmitted from a headend in the sky to all MultTV customers, reducing infrastructure costs. In addition, the partnership will streamline service availability, as subscribers will only need a new set top box.

Almatel Kazakhstan Launches New HEVC DTH Service with Harmonic

June 13, 2017 - Harmonic announced that the largest cable operator in Kazakhstan, Almatel Kazakhstan, operating under the brand name Alma TV, has augmented its cable television service with the launch of a direct-to-home (DTH) satellite television platform using the latest generation HEVC video compression solution from Harmonic. Harmonic's ElectraTM X advanced media processing platform allows Alma TV to deliver high-quality SD, HD and UHD channels across Kazakhstan with increased bandwidth efficiency by leveraging the HEVC video

codec. Using the software-based Electra X system, Alma TV will be able to easily adopt new formats and codecs in the future, including 4K/UHD.

KT SAT Signs Transponder Lease Deal with Mongolian Satellite TV Operator

June 16, 2017 - KT SAT has signed a transponder lease agreement with Mongolian satellite TV operator DDISH TV. Under the deal, KT's satellite-based network service affiliate will lease four transponders to offer direct-to-home (DTH) services for the Mongolian company starting next year. The exclusive contract allows KT SAT to secure a long, stable revenue source, strengthening its foothold in the global satellite-based TV market. Last year, the company clinched a three-year transponder contract with Pakistan-based satellite business Paksat. But KT SAT said the latest deal is meaningful, because the contract will not expire until the end of the satellites' 17-year lifespan. DDISH TV will start using KOREASAT-5A, a Ku-band satellite from Thales Alenia Space expected to launch on a SpaceX Falcon 9 rocket by year's end. Expectations are the company will offer more than 90 high-definition channels. DDISH TV is Mongolia's largest satellite broadcasting company, with some 320,000 subscribers since it started the business in 2008.

ABS Provided Capacity for Live Broadcast of the G7 Summit on ABS-3A

June 20, 2017 - ABS has signed a capacity contract for occasional use (OU) on the ABS-3A European beam for the recent G7 summit in Sicily for the host broadcaster. Italy hosted the annual meeting of seven of the world's biggest industrialized economies (G7) in Sicily held in late May of this year. The summit brought together leaders from United States, Canada, Japan, France, Germany, Italy, United Kingdom and other EU countries. It focused on topics such as the global economy, foreign policy, security of citizens and environmental sustainability. The capacity used was on an ad-hoc basis. The ABS operations team enabled short notice service activations throughout the coverage of the event.

Russian Sports Broadcaster TV START Selects ATEME Kyrion Solution for its Mobile Television Fleet

June 27, 2017 - ATEME has announced that Russian sport broadcaster TV Start, which specializes in the live transmission of various sport events, has deployed ATEME's Kyrion encoders and decoders to upgrade its mobile television units. Based on the ATEME fifth Generation STREAM compression engine, the Kyrion encoder and decoder provides excellent baseband video quality at minimum bitrates. This solution has been designed for contribution over satellite and IP networks, with added value features such as ultra-fast-boot, ultra-low latency, built-in monitor, audio loudness control, ABR output and DVB-S/DGNG/S2/S2x support. All these features make ATEME's Kyrion an ideal solution for football, basketball, volleyball, tennis and other live broadcast sporting events.

TELCOM Satellites TV to Launch a New DTH Platform with ABS-3A in Nigeria

June 28, 2017 - ABS and Telkom Satellites TV (TSTV) signed a multi-transponder agreement to deliver a Direct-to-Home (DTH) broadcast service into Nigeria on ABS-3A. The new platform is scheduled to be launched on 25th July 2017 and will be distributed on ABS-3A satellite, Africa beam which is located at the prime video neighborhood of 3°W. The service will air over 100 TV channels, and the number is expected to grow to 150 soon after. Audiences will be able to enjoy unbeatable innovations, local and foreign content and the best of entertainment programs. The ABS-3A satellite is a new pillar for high profile broadcast contribution in Africa, MENA, Europe, and the Americas. Its wide Ku-band Africa beam has extended new possibilities for video distribution across the region. The orbital slot of our beam at 3°W gives an advantage to Nigeria due to its high elevation angle and clear line of sight across the country.

Cable's First Live Pay-Per-View Sports Event in Ultra HD Delivered by iN DEMAND with SES Video

June 29, 2017 - SES announced the successful delivery of iN DEMAND and cable's first 4K live Pay-Per-View (PPV) sports event broadcast, Bellator NYC: Sonnen vs Silva Mixed Martial Arts, over the SES Ultra HD distribution platform. On June 24, bouts from the action-packed blockbuster event were transmitted live from New York's Madison Square Garden to cable and IPTV subscribers in select markets on PPV, offering them a compelling 4K experience. The broadcast also marked a milestone in network trials for MVPDs (Multichannel Video Programming Distributors) nationwide. Programming on the SES Ultra HD line-up features ten 4K Ultra HD channels, including Fashion One 4K, Travelxp 4K, 4KUNIVERSE, NASA TV UHD, INSIGHT TV, UHD1, C4K360, Funbox UHD, 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 cover 100% of the cable head-ends in the US.

Arabsat & TV5 Launch HD Channels on Arabsat Brand Free-To-Air DVB-S2 Platform

June 30, 2017 - Arabsat and TV5 Monde announced the broadcast of both TV5 Monde Maghreb Orient HD & TV5 Monde Style HD on the newly launched Arabsat Free-To-Air DVB-S2 platform. It carries, exclusively, many premium and highly viewed HD international channels, broadcasted as Free-to-Air across the Middle East and North Africa via the superior coverage of Arabsat BADR-4, which can be viewed with minimum receive dish size. Viewers across the Middle East and North Africa will continue to receiving an extensive offering & wide varieties of prime Free-To-Air international and regional HD channels on Arabsat hotspot at 26° East.

LAUNCH / SPACE

Successful Launch of H-IIA Launch Vehicle No. 34 Encapsulating MICHIBIKI No. 2

June 1, 2017 - Mitsubishi Heavy Industries, Ltd. and Japan Aerospace Exploration Agency (JAXA) successfully launched H-IIA Launch Vehicle No. 34 (H-IIA F34) which encapsulates MICHIBIKI No. 2, Quasi-Zenith Satellite System at 9:17:46 a.m. on June 1, 2017 (JST) from JAXA's Tanegashima Space Center. The launch and flight of H-IIA Launch Vehicle No. 34 proceeded as planned and the separation of the satellite confirmed 28 minutes 21 seconds after the launch time.

EUTELSAT 172B Successfully Launched by Ariane 5 Rocket

June 2, 2017 - The EUTELSAT 172B satellite of Eutelsat Communications was successfully launched into space by an Ariane 5 rocket. Eutelsat's new satellite is scheduled to enter into service in fourth quarter 2017. EUTELSAT 172B will deliver increased capacity for fast-growing applications that include in-flight and maritime connectivity, cellular backhaul, corporate networks, video and government services. It will be located at 172° East, a key neighbourhood providing exceptional Asia-Pacific reach over land and sea, from Alaska to Australia. Designed to replace EUTELSAT 172A, it will provide increased capacity, more power and improved coverage via C and Ku-band payloads connected to a range of service areas. Following the transfer of traffic to the new satellite EUTELSAT 172A will continue commercial service at another orbital position. EUTELSAT 172B also features a new Ku-band multi-beam payload delivering 1.8 Gbps of throughput to serve the world's fastest-growing region for air traffic. The Asia Pacific represents the largest opportunity for in-flight entertainment and connectivity services, with over 8,000 aircraft to be delivered to the region by 2034.

Arianespace Successfully Launched ViaSat-2

June 2, 2017 - ViaSat Inc. announced the successful launch of its ViaSat-2 satellite aboard an Arianespace Ariane 5 ECA launch vehicle. The Ariane 5 ECA carrying ViaSat-2 lifted on June 1 at 4:45 pm PDT from the Guiana Space Center, located in Kourou, French Guiana. ViaSat expects it will take several months for ViaSat-2 to reach its final orbital destination, located at 69.9° west longitude. 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 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.

Eutelsat Signs New Launch Contract with Arianespace

June 2, 2017 - Following the launch of the EUTELSAT 172B satellite, Eutelsat Communications announced a new launch services contract with Arianespace. The Arianespace order book now includes three future launches for Eutelsat in addition to the 32 Eutelsat satellites already launched by the European launch services provider over more than 30 years for one of the world's leading satellite operators. Of the three satellites to be launched, EUTELSAT 7C (built by SSL) will be orbited in 2018, followed in 2019 by Eutelsat Quantum built by Airbus and the high throughput satellite built by Thales.

Thales Alenia Space Signed a Contract with Inmarsat for the Construction of GX Satellite

June 2, 2017 - Thales Alenia Space signed a contract with Inmarsat for the construction of its new communication Global Xpress (GX) satellite. The value of the contract to construct the satellite will be approximately \$130 million over the three years 2017 to 2019. The satellite, which is targeted for launch in 2019, will be a Very High Throughput Satellite (VHTS), providing capacity across the Middle East, Europe and the Indian subcontinent. The payload will seamlessly become part of Inmarsat's existing GX high-speed global broadband network. The combination of latest satellite technology and a focus on areas of high demand, which will drive high capacity utilization, will together result in a very low cost per bit delivered. This new satellite will be based on the flight

proven Spacebus B2 enhanced platform and will be fitted with 72 Ka-band beams. With a specified design life of 16 years, it will weigh less than 4 metric tons at launch and will offer payload power of about 6.8 kW.

First Dragon Reflight

June 3, 2017 - On June 3, 2017, SpaceX's Falcon 9 rocket successfully launched a Dragon spacecraft for the company's eleventh Commercial Resupply Services mission (CRS-11) to the International Space Station. This mission marked the first reflight of a Dragon spacecraft, having previously flown during the fourth Commercial Resupply Services (CRS-4) mission back in September 2014. This launch also marked the 100th launch from historic Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center. Previous launches include 11 Apollo flights, the launch of the un-crewed Skylab in 1973, 82 shuttle flights, and five SpaceX launches. Following stage separation, the first stage of Falcon 9 successfully landed at SpaceX's Landing Zone 1 (LZ-1) at Cape Canaveral Air Force Station, Florida.

First Developmental Flight of India's GSLV MkIII Successfully Launches GSAT-19 Satellite

June 6, 2017 - The first developmental flight (GSLV MkIII-D1) of India's heavy lift launch vehicle GSLV Mk-III was successfully conducted on June 05, 2017 from Satish Dhawan Space Centre SHAR, Sriharikota with the launch of GSAT-19 satellite. This was the first orbital mission of GSLV MkIII which was mainly intended to evaluate the vehicle performance including that of its fully indigenous cryogenic upper stage during the flight. Weighing 3136 kg at lift-off, GSAT-19 is the heaviest satellite launched from the Indian soil. After a twenty five and a half hour smooth countdown, the mission began with the launch of the 640 ton GSLV Mk-III at 5:28 pm IST from the Second Launch Pad as scheduled with the ignition of its two S200 solid strap-on boosters. Following this, the major phases of the flight occurred as scheduled. The upper stage of GSLV MkIII vehicle is a new cryogenic stage (C25) indigenously configured, designed and realized by ISRO. The cryogenic stage used liquid Hydrogen and liquid Oxygen as propellants with a total loading of 28 tons. The stage is powered by a 20 ton thrust cryogenic engine (CE20) operating on 'gas generator cycle'. The performance of the engine and stage during the mission was as predicted. About sixteen minutes after lift-off, GSAT-19 satellite was successfully placed in orbit.

ESA Contract with Thales Alenia Space to Bring EGNOS to Next Level

June 6, 2017 - ESA has signed a contract with Thales Alenia Space for an upgrade of Europe's EGNOS satellite navigation augmentation system, which underpins the safety-critical use of satnav across our continent. Designed by ESA and being exploited by Europe's GNSS Agency, GSA, the European Geostationary Navigation Overlay Service (EGNOS) improves the precision of US GPS signals over most European territory, while also providing continuous and reliable updates on the 'integrity' of these GPS signals. A network of ground monitoring stations throughout Europe performs an independent measurement of GPS signals, so that corrections can be calculated and then passed to users immediately via a trio of geostationary satellites. The result is that the EGNOS-augmented signals are guaranteed to meet the extremely high performance standards set out by the International Civil Aviation Organisation standard, adapted for Europe by Eurocontrol, the European Organisation for the Safety of Air Navigation.

MDA RADARSAT-2 Data to be Available on DigitalGlobe's Geospatial Big Data Platform, GBDX

June 6, 2017 - MacDonald, Dettwiler and Associates Ltd. (MDA), a global communications and information company, announced that it has signed an agreement to enable access to RADARSAT-2 archive data on GBDX, the powerful Geospatial Big Data platform of DigitalGlobe, Inc. GBDX is a leading platform for processing and analyzing geospatial data; it allows users to build, access and run advanced workflows and tools that extract actionable information from a cloud-based, multi-source satellite image library, allowing customers to quickly and cost-effectively solve large-scale, complex challenges. MDA's inclusion of synthetic aperture radar (SAR) change-detection tool to GBDX, in addition to enabling access to a global archive of 5-meter resolution Extra Fine RADARSAT-2 imagery, will allow users to create reliably collected change-detection value-added products in the GBDX environment. The RADARSAT-2 SAR dataset allows users to observe features and changes in the environment that go undetected using other imaging techniques.

ILS Proton Successfully Launches the EchoStar XXI Satellite

June 8, 2017 - International Launch Services (ILS) successfully delivered the EchoStar XXI satellite into orbit on ILS Proton for EchoStar Corporation. EchoStar XXI was manufactured by SSL utilizing their space-proven 1300 platform. EchoStar XXI is a state-of-the-art S-band satellite designed to provide mobile connectivity throughout Europe to be located at the 10.25° East orbital slot. EchoStar subsidiary EchoStar Mobile Limited, an EU-wide licensee for an integrated mobile satellite service network with a complementary ground component, will utilize a portion of the capacity on EchoStar XXI to provision its next-generation, all IP-enabled mobile communications

network. This 29th SSL satellite launched on Proton also features a large unfurlable reflector to provide the high performance levels required for mobile services.

NASA Awards Universal Stage Adapter Contract for Space Launch System Rocket

June 8, 2017 - NASA has selected Dynetics, Inc. of Huntsville, Alabama, to develop and build a universal stage adapter for the agency's Space Launch System (SLS) rocket. The adapter will connect NASA's Orion spacecraft and provide additional cargo space for the future configurations of the rocket containing an exploration upper stage (EUS). Under the contract, Dynetics will design, develop, test, evaluate, produce and deliver the first universal stage adapter for the second integrated mission of SLS and Orion, known as Exploration Mission-2, or EM-2. This mission will be the first test flight with crew aboard NASA's new deep space exploration systems. The universal stage adapter will house and protect large co-manifested payloads, such as habitats and deep-space exploration spacecraft, and secondary payloads including CubeSats. NASA's SLS with the exploration upper stage for EM-2 is expected to lift more than 105 metric tons (231,000 pounds) from the Earth's surface.

Strategic Partnership Agreement between JAXA and PeptiDream Inc

June 9, 2017 - PeptiDream Inc., a Tokyo-based public biopharmaceutical company, and the Japan Aerospace Exploration Agency (JAXA), a national research and development agency, has established a strategic partnership for the High-Quality Protein Crystal Growth (PCG) experiment on the Japanese Experimental Module ("Kibo") of the International Space Station (ISS). This strategic partnership agreement is a renewal of the current fee-based contract and represents a further expansion of the relationship between PeptiDream and JAXA. Under this Agreement, the number of experimental protein samples to be investigated is increased six-fold over the original agreement, and the term is further extended from August 2017 to August 2020. Utilizing Kibo as a "Drug-design supporting platform", PeptiDream and JAXA strive to obtain structural information on target proteins and their drug candidates swiftly and efficiently, aiming to produce best-in-class and first-in-class drugs for the world as well as Japan.

Orbital ATK Successfully Concludes Seventh Cargo Logistics Mission to the International Space Station

June 11, 2017 - Orbital ATK announced that its "S.S. John Glenn" Cygnus spacecraft successfully completed its seventh cargo logistics mission to the International Space Station under NASA's Commercial Resupply Services (CRS-1) contract. The mission also marked the third time that Cygnus was used as a research platform for conducting in-space research with all mission objectives executed as planned. The OA-7 mission officially concluded on June 11 at approximately 1:08 p.m. EDT when Cygnus performed a safe, destructive reentry into the Earth's atmosphere over the Pacific Ocean east of New Zealand. Cygnus was launched on April 18 from Cape Canaveral Air Force Station in Florida. Four days later, the spacecraft arrived at the International Space Station and delivered approximately 7,600 pounds (3,450 kilograms) of cargo to the astronauts. The cargo included a NanoRacks CubeSat deployer, food, clothing, crew supplies, spare parts, packaging materials and laboratory equipment.

First Ten Satellites in the Iridium NEXT Constellation, Built by Thales Alenia Space, Now Validated in orbit

June 14, 2017 - Following the launch of the first ten Iridium NEXT satellites in January 2017, their commissioning has proceeded very smoothly, as they passed all in-orbit tests with flying colors. These satellites are now interconnected, and are operating in full compatibility with the initial Block One constellation. Having passed this milestone, the second batch of ten satellites is now ready for launch on June 25 by SpaceX from the Vandenberg Air Force base in California. The Iridium NEXT constellation offers global connectivity thanks to 66 interconnected satellites at an altitude of 780 km, along with nine spares in parking orbit and six more spare satellites on the ground. Totally independent from other any ground network, this international system provides unrivaled capability for communications on the move (individuals, land vehicles, aircraft, ships), and ensures full global coverage, including the oceans.

LM-4B Launch Vehicle Launched Hard X-ray Modulation Telescope and Three Piggyback Satellites

June 15, 2017 - Long March 4B (LM-4B) Launch Vehicle successfully launched the Hard X-ray Modulation Telescope with three piggyback satellites, NewSat-3 and OVS-1A & OVS-1B, from Jiuquan Satellite Launch Center (JSLC) in China. The Hard X-ray Modulation Telescope is the first Chinese X-ray space astronomy satellite, and will be used to support high energy study including black-hole study. It is designed and manufactured by China Academy of Space Technology (CAST) for Chinese Academy of Sciences. NewSat-3 is the third satellite in the low-cost remote sensing satellites constellation which is under construction by Satellogic. The first two satellites in the constellation, NewSat-1&2 were successfully launched by LM-4B on May 30, 2016. This is the third piggyback launch services provided by CGWIC to Satellogic. In the third quarter of 2017, another

two NewSat satellites will be launched by Long March launch vehicle. The OVS-1A/1B piggyback launch services contract was signed between Orbita and CGWIC. OVS-1A & OVS-1B are the first two microsatellites of “ZHUHAI 1” remote sensing satellite constellation operated by Orbita based in Zhuhai, Guangdong Province, as part of the Satellite Space Information Platform program of Orbita.

Orbital ATK Completes First Qualification Test for NASA Orion Launch Abort Motor

June 15, 2017 - Orbital ATK, along with NASA and Lockheed Martin, successfully performed a ground test firing of the launch abort motor for NASA's Orion spacecraft's Launch Abort System (LAS). The June 15 test took place at Orbital ATK's Promontory, Utah, facility, and was a critical milestone toward qualification of the motor that will safely pull the Orion crew module away from NASA's Space Launch System (SLS) launch vehicle in the event of an emergency on the launch pad or during ascent.

OHB Italia and Arianespace Sign Contract to Launch PRISMA Italian Satellite

June 19, 2017 - OHB Italia Spa and Arianespace announced the signature of the launch contract for the Italian Space Agency's PRISMA (PRecursore IperSpettrale della Missione Applicativa) satellite. The launch will be carried out by a Vega rocket in 2018 from the Guiana Space Center. PRISMA is an Earth observation satellite fitted with an innovative electro-optical instrument, combining a hyperspectral sensor with a medium-resolution panchromatic camera. This type of combined instrument offers the advantages of conventional observation, based on the recognition of the geometric characteristics of a scene, coupled with the ability to determine the chemical and physical characteristics of the objects present in the scene, using the hyperspectral sensors. Built by OHB Italia on a dedicated platform hosting the Payload supplied by Leonardo Airborne and Space Systems, the PRISMA satellite will be placed into a Sun-synchronous orbit at an altitude of 615 kilometers. It will weigh approximately 900 kilograms at launch.

Arianespace to Orbit Airbus' Upcoming Constellation of Observation Satellites

June 20, 2017 - Airbus Defence and Space and Arianespace announced the signature of the launch services contract for the next generation of very-high-resolution optical observation satellites. Two VEGA C launchers will orbit the four satellites in this constellation from the Guiana Space Center in French Guiana, as from mid-2020. By delivering images of each point on the globe several times a day, these extremely-agile optical satellites will keep a close watch on our constantly-changing planet. Airbus Defence and Space is the first commercial customer for the upcoming VEGA C launcher. This enhanced version of the VEGA lightweight vehicle, which continues its brilliant career with nine successful launches out of nine, is now under development with a first flight slated for mid-2019.

Thales Alenia Space's New-Generation Electronics from Belgium Chosen for the Electra Platform

June 21, 2017 - Thales Alenia Space has signed its first contract with OHB to provide new-generation electronic equipment, made in Belgium, for the Electra platform. Developed in a public-private partnership (PPP) by the operator SES, the European Space Agency (ESA) and the German space agency DLR, Electra is a generic geostationary platform with all-electric propulsion. It will have a payload capacity of 300 kilograms, with up to 3 kW of power, and offers a design life of up to 15 years. These products are developed in Belgium by Thales Alenia Space, within the scope of ESA's ARTES (Advanced Research in Telecommunications Systems) project. They meet the requirements of all-electric versions of new-generation European geostationary satellite platforms, designed to address operator expectations for competitiveness, flexibility and multi-launcher compatibility.

Harris Corporation Delivers Advanced Weather Satellite Instrument to South Korea

June 21, 2017 - Harris Corporation has delivered an advanced digital weather satellite instrument to the Korea Aerospace Research Institute (KARI) that will help forecasters safeguard people in the region from typhoons and other severe weather. The Harris-built Advanced Meteorological Imager, or AMI, will be integrated into the next-generation GEO-KOMPSAT-2A weather satellite, scheduled to launch in 2018. The AMI will deliver images with three times more data and four times the resolution at refresh rates five times faster than currently available in the region. The AMI is based on the Advanced Baseline Imager built for the U.S. National Oceanic and Atmospheric Administration's Geostationary Operational Environmental Satellite-16 (GOES-16). GOES-16 launched aboard a United Launch Alliance Atlas V rocket in November 2016. It is performing well and providing significantly increased capabilities to the National Weather Service. The data coming from the instrument will be used operationally beginning this fall. Two other advanced imagers are in orbit on Japan's Himawari-8 and Himawari-9 weather satellites.

ArianeGroup Signs a First Contract with ESA to Develop the Future Prometheus Engine

June 22, 2017 - The European Space Agency and Airbus Safran Launchers, the 50/50 joint-venture set up by the Airbus and Safran groups, which will become ArianeGroup on July 1, signed the first tranche of the development contract for the future Prometheus LOx-methane engine. Prometheus is a demonstrator running on liquid oxygen (LOx) and methane for a reusable engine. Applications deriving from it will be able to equip future European launchers as of 2030. The contract signed today also marked the addition of European industrial partners to the Prometheus demonstrator project, including Avio from Italy, GKN from Sweden, Safran AeroBooster from Belgium, and the German and French entities of ArianeGroup. The first tests are scheduled for 2020 in Lampoldhausen (Germany), on the site of the German aerospace agency (DLR).

Ixion Initiative Team Signs Contract with NASA to Study the Conversion of Rocket Upper Stages into Space Habitats

June 22, 2017 - The Ixion Initiative Team, which includes NanoRacks, LLC, Space Systems Loral (SSL), and United Launch Alliance (ULA), has signed and executed a previously announced agreement with NASA to conduct a comprehensive feasibility study evaluating the conversion of rocket upper stages into commercial habitats. Funded by the second phase of the Agency's Next Space Technologies for Exploration Partnerships (NextSTEP-2) Broad Agency Announcement, this innovative approach offers a pathway that is substantially more robust and affordable than fabricating modules independently on the ground and subsequently launching them into orbit. SSL will bring a wealth of expertise to the Ixion Initiative Team. Within the feasibility study, SSL will explore leveraging its robotic systems to convert the rocket upper stage into a habitat, examine the use of SSL solar electric propulsion capability, and explore utilizing a commercial habitat for orbital satellite assembly and manufacturing.

PSLV-C38 Successfully Launches 31 Satellites in a Single Flight

June 23, 2017 - ISRO's Polar Satellite Launch Vehicle PSLV-C38 successfully launched the 712 kg Cartosat-2 Series Satellite along with 30 co-passenger satellites from Satish Dhawan Space Centre SHAR, Sriharikota. This is the thirty ninth consecutively successful mission of PSLV. PSLV-C38 lifted off from the First Launch Pad. After a flight of about 16 minutes, the satellites achieved a polar Sun Synchronous Orbit of 505 km inclined at an angle of 97.44 degree to the equator (very close to the intended orbit) and in the succeeding seven and a half minutes, all the 31 satellites successfully separated from the PSLV in a predetermined sequence beginning with Cartosat-2 series satellite, followed by NIUSAT and 29 customer satellites. The total number of Indian satellites launched by PSLV now stands at 48. One of the 30 co-passenger satellites carried by PSLV-C38 was the 15 kg NIUSAT, a University/Academic Institute satellite from Nurul Islam University, Tamil Nadu, India. The remaining 29 co-passenger satellites carried were international customer satellites from USA (10), United Kingdom (3), Belgium (3), Italy (3), Austria (1), Chile (1), Czech Republic (1), Finland (1), France (1), Germany (1), Japan (1), Latvia (1), Lithuania (1) and Slovakia (1).

SpaceX Successfully Launched BulgariaSat-1 by Falcon 9

June 25, 2017 - SpaceX's Falcon 9 rocket has successfully launched the BulgariaSat-1 satellite into orbit. BulgariaSat-1 is the first geostationary communications satellite in Bulgaria's history. Built by SSL, it will be located at 1.9 degrees East and provide DTH and data communications services to the Balkans, CEE as a whole, the Middle East, Northern Africa and the Caucasus. BulgariaSat-1's payload includes 30 Broadcast Satellite Service (BSS) Ku-band transponders and two Fixed Satellite Service (FSS) Ku-band transponders, in order to meet the current demand for HDTV and Ultra HDTV broadcasting, as well as various other communications applications. Aside from a high-power European beam, BulgariaSat-1 is equipped with a spot beam that can be used to provide extra capacity over the Balkans. The BulgariaSat-1 launch marks the second time SpaceX has relaunched a rocket booster, the first one being from Florida on March 30. The booster safely landed on a ship in the Atlantic Ocean, roughly 9 minutes and 10 seconds after launch.

Successful Second Launch Doubles the Number of Iridium NEXT Satellites in Space

June 25, 2017 - Iridium Communications Inc. announced the successful second launch of its next-generation network, Iridium NEXT. This payload of 10 satellites was deployed into low-Earth orbit, approximately one hour after a SpaceX Falcon 9 rocket lifted off from Vandenberg Air Force Base in California. With this launch complete, there are now 20 Iridium NEXT satellites in orbit, establishing the infrastructure for groundbreaking technologies such as Iridium Certus and Aireon's space-based Automatic Dependent Surveillance-Broadcast (ADS-B) aircraft tracking and surveillance service. Iridium Certus is poised to disrupt industry norms by enabling truly global L-band satellite broadband speeds through smaller, more cost-effective antennas.

Nine More Satellites in exactEarth's Real-Time Constellation Now Launched

June 25, 2017 - The June 25 Iridium NEXT launch successfully carried nine of exactEarth' real-time payloads into orbit where they are now undergoing standard commissioning and are expected to be brought online in the coming months. With this recent launch, exactEarth now has the most number of AIS receivers in orbit. By the end of 2017 more than half of the exactEarth RT powered by Harris payloads are expected to be in orbit with the rest following quickly to meet 2018 completion date.

OneWeb Satellites Launches Serial Production Line for OneWeb's First Satellites

June 27, 2017 - OneWeb Satellites inaugurates its assembly line in Toulouse, the beating heart of Airbus' manufacturing expertise, to begin end-to-end validation, testing, and integration of its first satellites set for launch in just over nine months. OneWeb Satellites is a joint venture between OneWeb, a global communications company whose mission is to provide affordable Internet access to everyone on Earth, and Airbus Defence and Space with its first order to include the production of 900 communications satellites for OneWeb's low Earth orbit (LEO) satellite fleet. The 4,600 square meters Toulouse facility will serve to validate the production methods necessary to manufacture high-performance satellites at a scale never achieved before, de-risk any potential issues, and lay the framework for the larger multi-line OneWeb Satellites factory near the Kennedy Space Center, Florida. The initial 10 pilot and Toulouse-built satellites, after having undergone a comprehensive set of tests, will become the first of OneWeb's fleet.

Second Lockheed Martin Satellite Assembled, Ready to Begin Environmental Testing

June 27, 2017 - In a specialized cleanroom designed to streamline satellite production, Lockheed Martin is in full production building GPS III – the world's most powerful GPS satellites. The company's second GPS III satellite is now assembled and preparing for environmental testing, and the third satellite is close behind, having just received its navigation payload. In May, the U.S. Air Force's second GPS III satellite was fully assembled and entered into Space Vehicle (SV) single line flow when Lockheed Martin technicians successfully integrated its system module, propulsion core and antenna deck. GPS III SV02 smoothly came together through a series of carefully-orchestrated manufacturing maneuvers utilizing a 10-ton crane. GPS III SV02 is part of the Air Force's next generation of GPS satellites, which have three times better accuracy and up to eight times improved anti-jamming capabilities. Spacecraft life will extend to 15 years, 25 percent longer than the newest GPS satellites on-orbit today.

Ariane 5 Launches Two Multi-mission Satellites for Fixed and Mobile Services

June 28, 2017 - The 80th consecutive success for Arianespace's heavy-lift Ariane 5 lofted two satellites, delivering new capacity for use in the distribution of TV and video content, telecommunications services, mobile satellite services, data relay, along with coverage of search and rescue missions. Orbiting by Arianespace Flight VA238 from the Spaceport in French Guiana were a so-called "condosat" composed of two payloads for Hellas Sat and Inmarsat, along with a spacecraft for the Indian Space Research Organisation. The payload for Hellas Sat 3 will expand this company's business reach by providing direct-to-home (DTH) TV broadcast and telecommunications services, as well as the distribution of high-definition (HD) and ultra-high definition (UHD) video content in Europe, the Middle East and sub-Saharan Africa. These fixed satellite services (FSS) and broadcast satellite services (BSS) include a cross-strap service between Europe and South Africa. Also integrated on the Hellas Sat 3-Inmarsat S EAN satellite is a relay payload for a system developed by Inmarsat with Deutsche Telekom to offer high-speed, high-capacity Wi-Fi connections for airline passengers. Weighing an estimated 5,780 kg at liftoff, Hellas Sat 3-Inmarsat S EAN was produced by Thales Alenia Space using its Spacebus 4000C4 platform. The dual-payload consosat has a total coverage area that includes spans Europe, the Middle East and sub-Saharan African regions, and will operate from a 39-deg. East orbital slot. Built by ISRO/ISAC (the ISRO Satellite Centre) utilizing the Standard I-3K satellite bus, GSAT-17 will expand the Indian national space agency's current fleet of 17 telecommunications satellites. It is to provide continuity of Fixed Satellite Services (FSS) in Normal C and Upper Extended C bands, as well as Mobile Satellite Services (MSS) in S-band and Data Relay and Search & Rescue services in UHF band – operating from a final orbital position of 93.5 deg. East.

MDA Announces On-Orbit Satellite Servicing Business Formation and Contract Awards for Spacecraft

June 28, 2017 - SSL MDA Holdings Inc., a global communications and information company, announced important milestones in its progress to bring transformational on-orbit satellite servicing to market. Space Infrastructure Services LLC (SIS), a new U.S. company, will commercialize sophisticated satellite servicing capabilities, including refueling. SIS will be majority owned by Finance Technology Leverage LLC (FTL), a global investment company headquartered in Silicon Valley, along with other U.S. investors, with SSL MDA Holdings maintaining a minority ownership share. Full financing for the venture is expected to conclude in the coming

weeks. On-orbit satellite servicing will provide operators with the ability to enhance the existing use of space assets through life extension, inspection, and repair. In addition, satellite servicing provides a capability to perform partial assembly in orbit, either augmenting existing satellites, replacing elements from modular satellites or constructing larger satellites freed from the mass and size constraints of launch. SIS has awarded a contract to SSL to design and build the highly capable satellite servicing spacecraft vehicle. The vehicle will fully meet the specifications for the Defense Advanced Research Projects Agency (DARPA)'s Robotic Servicing of Geosynchronous Satellites (RSGS) program, which is designed to inspect, repair, and augment geosynchronous satellites and plans to include a refueling payload to extend the life of satellites that are low on propellant.

SES and MDA Announce First Satellite Life Extension Agreement

June 28, 2017 - SES and MDA announced an agreement for an initial satellite life extension mission using an on-orbit refueling vehicle being built by SSL. SES will be the first commercial customer to benefit from the satellite refueling service, and will be able to activate the service whenever required with minimal disruption to spacecraft operation. The agreement also includes an option for further life extension missions. SES will work with a new venture, Space Infrastructure Services (SIS), which will commercialize sophisticated satellite servicing capabilities. SIS has contracted SSL to design and build the highly-capable satellite servicing spacecraft vehicle to meet the needs of the US Defense Advanced Research Projects Agency (DARPA)'s Robotic Servicing of Geosynchronous Satellites (RSGS) program, which is designed to inspect, repair, relocate and augment geosynchronous satellites and plans to include a refueling payload to extend the life of satellites that are low on propellant. The satellite servicing spacecraft vehicle is planned for launch in 2021.

SSTL Selected to Build Third Batch of Galileo Navigation Payloads

June 29, 2017 - Under an Authority to Proceed signed with prime contractor OHB-System AG, Surrey Satellite Technology Ltd (SSTL) is commencing work on building 8 navigation payloads for Galileo, Europe's global navigation satellite system. The contract will be worth approximately €140m, and it is a continuation of a long and successful cooperation between SSTL and OHB-System AG, with the pairing having previously built 22 FOC satellites for the Galileo Constellation. SSTL's state-of-the-art Galileo FOC payload comprises different units including European sourced atomic clocks, navigation signal generators, high power travelling wave tube amplifiers and antennas. SSTL's payload proposal for Batch 3 is for a recurrent build of the existing payload, with an evolution of the atomic clocks to incorporate advances made under the European GNSS Evolution Programme.

ULA Wins Competitive Contract Award to Launch the United States Air Force STP-3 Mission

June 29, 2017 - The United States Air Force announced that United Launch Alliance (ULA) was awarded a contract to launch the Space Test Program-3 (STP-3) mission. This contract resulted from a competitive award under the Air Force's Phase 1A procurement strategy. The STP-3 mission is scheduled to launch in the summer of 2019 from Space Launch Complex-41 at Cape Canaveral Air Force Station in Florida. This mission will launch aboard an Atlas V 551 vehicle. ULA also launched the first Space Test Program mission in March 2007. The launch marked the first Air Force Evolved Expendable Launch Vehicle mission on an Atlas V and the first Atlas V mission for ULA. The STP-3 mission consists of a primary space vehicle (STPSat-6) and an integrated propulsive EELV Secondary Payload Adapter (ESPA) holding up to six payloads (IP-ESPA). The STPSat-6 space vehicle will host the National Nuclear Security Administration (NNSA), Space and Atmospheric Burst Reporting System-3 (SABRS-3) payload, and the NASA Laser Communications Relay Demonstration (LCRD) payload. Additionally, seven science and technology (S&T) payloads are manifested by the Department of Defense Space Test Program on STPSat-6.

EXECUTIVE MOVES

Boeing Streamlining Defense and Space Unit to Boost Competitiveness

June 13, 2017 - Boeing is taking the next step in making its Defense, Space & Security (BDS) unit more globally competitive by eliminating a layer of executive oversight. As of July 1, the current Boeing Military Aircraft and Network & Space Systems segments will evolve into smaller entities reporting to Caret. Boeing executives Chris Raymond, Jim Chilton, Shelley Lavender, and David Koopersmith will lead those, respectively. The Development, Global Operations, and Phantom Works segments, which also report to Caret, will largely be unchanged. About 50 executive positions will be affected this year as a result of the changes.

RSCC Kseniya Drozdova Re-elected Intersputnik's Operations Committee Chairman

June 15, 2017 - A regular joint session of the Board and Operations Committee of Intersputnik International Organization of Space Communications took place on June 14-15, 2017 in Prague (the Czech Republic) hosting official representatives from 21 member nations in the organization. RSCC's Deputy Chief Executive Officer, Business Development, Kseniya Drozdova was elected Chairman of the Operations Committee in charge of day-to-day business management. Director of the Electronic Communications Department at the Ministry of Industry and Trade of the Czech Republic, a Plenipotentiary Representative of the Czech Republic in the Board L. Schneider was elected Chairman of the Board of INTERSPUTNIK. Vadim Belov who has been at the helm of INTERSPUTNIK for the past 12 years was re-elected to the office of the INTERSPUTNIK Chief Executive Officer.

Orbital ATK Names Rick Mastracchio as Senior Director of Operations for Commercial Resupply Services

June 19, 2017 - Orbital ATK announced that Rick Mastracchio has joined the company's Space Systems Group as the Senior Director of Operations for the Commercial Resupply Services (CRS) program, which relies on commercial providers to deliver vital cargo to the International Space Station. As a member of the Advanced Programs Division's Human Space Systems team based in Dulles, Virginia, Mastracchio will be responsible for managing the CRS Mission and Cargo Operations teams. He will also support other Human Space Systems programs, including Orbital ATK's exploration pursuits beyond low earth orbit. Prior to joining Orbital ATK, Mastracchio had an impressive career as a NASA astronaut. He was selected as an astronaut candidate in August 1996 and flew as a mission specialist on three space shuttle flights: STS-106, STS-188 and STS-131. He also spent time on the space station as part of Expedition 38/39 and was on the orbiting laboratory when Orbital ATK's first Cygnus resupply spacecraft under the CRS contract berthed with the station. Mastracchio has logged 228 days in space, including nine spacewalks totaling 53 hours.

Speedcast Appoints Toni Lee Rudnicki as New Vice President of Global Marketing

June 28, 2017 - Speedcast International Limited announced that satellite industry veteran Toni Lee Rudnicki has joined the Company in the newly created role of Vice President of Global Marketing. A highly accomplished senior level marketing executive, Ms. Rudnicki has successfully defined and implemented marketing and branding strategies for both private and public companies. The appointment of Rudnicki is the latest step in the Company's effort to strengthen its leadership team as it capitalizes on the growing demand for high quality, always available global communications. Previously she served as the Chief Marketing Officer for iDirect. Just prior to joining Speedcast, Rudnicki had been responsible for marketing and business development for the Agilis Business Unit of ST Engineering in Singapore. In her position as Vice President of Global Marketing, Rudnicki will be responsible for all global marketing activities including branding, messaging, strategic marketing, vertical marketing, analyst relations, advertising, public relations, alliance marketing, and marketing communications.

MDA Announces Retirement of SSL President and New Executive Appointments

June 28, 2017 - MacDonald, Dettwiler and Associates Ltd. (MDA) announced that John Celli will be retiring as President of SSL (Space Systems Loral) after serving the company for 36 years. Dario Zamarian has been appointed Group President and Paul Estey has been appointed Executive Vice President and Chief Operating Officer at SSL, both effective July 17, 2017. Since 2013, Zamarian has advised multiple technology companies affiliated with the Blackstone Group and served on several of their company boards. Most notably, he was instrumental in the strategy formulation, acquisition and integration activities that formed Optiv Security, a market-leading provider of end-to-end cyber security solutions. Previously, he was Global Vice President and Worldwide General Manager, Enterprise Systems and Solutions business at Dell Technologies from 2010-2013. Zamarian served as Vice President and General Manager, Systems and Network Management business at Cisco Systems from 2004-2010. Zamarian's responsibilities as SSL Group President will include all of the satellite and space systems markets the company serves including GEO Communications, LEO Communications and Earth Observation, Space Infrastructure Services and U.S. Government Systems. Dr. Paul Estey joined SSL in 1997. He currently serves as Executive Vice President, Engineering and Operations.

José Manuel do Rosário Toscano to Join Intelsat as Head of International Government Affairs

June 30, 2017 - Intelsat S.A. announced that José Manuel do Rosário Toscano will be joining the company to lead its efforts in International Government Affairs and Asset Management, effective September 4, 2017. Toscano will join the Luxembourg global headquarters office. In this newly created role, Toscano will be responsible for Intelsat's international government relations and other international advocacy activities, particularly with respect to the company's European, Africa and Asia interests. Toscano will also manage Intelsat's Luxembourg-based asset deployment program. Toscano joins Intelsat from the International Telecommunications Satellite Organization (ITSO), where he served as ITSO's Director General and Chief Executive Officer since 2009 and as ITSO's

Director of External Affairs from 2003-2009. Prior to joining ITSO, Toscano held senior positions at the Instituto das Comunicações de Portugal (ICP-ANACOM), including Director of Engineering and Director of International Affairs and at the European Commission in Brussels from 1988 through 1996.

REPORTS

HTS Capacity Lease Revenues to Reach More Than \$6 Billion by 2025

June 21, 2017 - According to Euroconsult's latest report, High Throughput Satellites: Vertical Market Analysis & Forecasts, the total committed investment from the 30 satellite operators in HTS systems has reached nearly \$19 billion. Compared to the 36 launches of GEO-HTS systems over the past decade, another ~100 GEO-HTS systems are expected to launch from 2017 to 2025, at an average of 11 launches per year. Of these ~100 GEO-HTS systems, roughly 60 have yet to be officially contracted and are still open to the market. This report assesses the demand take-up profiles of HTS capacity within seven key vertical markets: Consumer Broadband, Civil Government & Enterprise Networks, Cellular Backhaul & Trunking, Aero In-Flight Connectivity, Maritime, Military Satellite Communications, and Video Services. The report highlights the evolution of HTS systems and architectures over the last decade. In addition, it identifies and assesses the HTS investment plans of all satellite operators. All vertical market forecasts are built bottom-up and provide an overview of projected market take-up by region and system type (GEO-HTS Ka, GEO-HTS Ku, NGSO-HTS) until 2025.

WTA Publishes Understanding and Improving the ROI of VSAT Networks Research Report

June 23, 2017 - The World Teleport Association (WTA) released Understanding and Improving the ROI of VSAT Networks, a new research report. VSAT is a fundamental technology for teleport operators serving data and voice customers. Beyond serving as basic hubs for VSAT networks, teleports provide complex managed services on VSAT platforms and integrate them with fiber, wireless and other transmission paths. A teleport may manage dozens or hundreds of individual networks, each comprising anywhere from 20 to 2,000 nodes with its own specific configuration, bandwidth requirements and mission-criticality. Success in this demanding business requires economies of scale: the ability to design, install, operate and maintain networks with the most efficient and cost-effective mix of personnel, equipment and bandwidth. Savings in any of those areas produce a better return on investment for the operator and, if properly implemented, a more efficient and higher quality operation for customers.

NSR Releases Global Satellite Capacity Supply & Demand, 14th Edition

June 27, 2017 - The satellite industry is at the cusp of rapidly expanding its total addressable market and playing a much more critical role in the greater telecom ecosystem, with changes brought about by the lower cost per Mbps enabled by HTS capacity. This is the core finding of NSR's industry leading Global Satellite Capacity Supply & Demand, 14th Edition (GSCSD14) study. The study provides analysis for both supply and demand, and subsequent leasing revenues for satellite capacity moving forward. The study finds that despite a decline of over \$2 billion in annual FSS leasing revenues (driven by both C-band and Ku-band declines), the industry will be redefined by the promise of HTS capacity, seeing HTS revenues increase tenfold from 2016-2026, culminating in a \$17 billion annual market by 2026.

UPCOMING EVENTS

Digital Ship Maritime CIO Forum Tokyo, 30 August 2017, Tokyo, Japan, www.tokyo.thedigitalship.com

Space Technology & Investment Forum, 30-31 August 2017, San Francisco, USA, www.spacetechforum.com

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

21st Summit for Satellite Financing, 11-14 September 2017, Paris, France, www.satellite-financing.com/en

IBC 2017, 14-18 September 2017, Amsterdam, the Netherlands, www.ibc.org

Myanmar Connect 2017, 19-20 September 2017, Nay Pyi Taw, Myanmar, www.capacityconferences.com/Myanmar-Connect.html

VSAT Global 2017, 19-22 September 2017, London, U.K., <https://tmt.knect365.com/vsat-global/>

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.

SATCOMS 2017, 25-28 September 2017, London, U.K., <http://events.theiet.org/satcoms/index.cfm>

Satellite Innovation Symposium, 2-3 October 2017, Silicon Valley, CA, USA, <https://satelliteinnovation.com/>

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

China Satellite 2017, 25-27 October 2017, Beijing, China, www.china-satellite.org

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

CASBAA Convention 2017, 6-9 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

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

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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.