

APSCC Monthly e-Newsletter

FEBRUARY 2019

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

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

INSIDE APSCC

Mark Your Calendar for APSCC 2019 on Nov 19 – 21 in Bangkok, Thailand!

APSCC is pleased to announce that the APSCC 2019 Satellite Conference & Exhibition will be held in Bangkok, Thailand on 19th – 21st November 2019. For the first time held in November as Asia's must-attend executive event for the satellite and space industry, APSCC 2019 will incorporate industry veterans and new players through the 3-day of in-depth conference program to a broader audience. For more information please visit www.apccsat.com

APSCC Industry Briefing @ConnectTech Asia June 18, Satcomm Hall, Marina Bay Sands

APSCC will hold a Satellite Industry Briefing on 18th June at the ConnectTech Asia Satcomm hall. Open to all exhibitors and visitors at the Satcomm hall, APSCC will have this one day program focused on existing satellite trends, NewSpace in Asia and the WRC-19 campaign. Please join this interactive and energetic satellite program during ConnectTech Asia! www.connectechasia.com

SATELLITE BUSINESS

Kratos Receives \$65 Million in Recent Space and Satellite Communications Contract Awards

January 1, 2019 - Kratos Defense & Security Solutions, Inc. has received recent space and satellite communications contract awards and options on existing contracts totaling approximately \$65 million. Work performed under these contract awards will be performed at secure Kratos manufacturing facilities and customer locations and is expected to be substantially completed over the next 12 months. The awards include Kratos' products and services across technology application domains that are critical to defending space operations and assuring global satellite communication for the United States and its allies, as well as certain other operations that are essential to national security. Under the contract awards, Kratos will provide solutions for satellite command & control, signal monitoring, end-to-end service assurance, cloud-enabled architectures and other applications. Kratos products support more than 85 percent of United States space missions, and are used by more than 75 percent of global satellite operators.

Panasonic Avionics Subsidiary, AeroMobile, Partners with Ooredoo in Kuwait for Inflight Roaming

January 2, 2019 - Panasonic Avionics Corporation Subsidiary, AeroMobile, a leading provider of inflight mobile connectivity, has partnered with Ooredoo, one of the leading telecoms operators in the Middle East, to make roaming in the skies of Kuwait more accessible and affordable for their local customers. In a first for a Kuwaiti mobile operator, Ooredoo Kuwait have expanded their mainstream roaming bundle, Ooredoo Passport, to now include AeroMobile's inflight mobile phone service as an additional destination. As a result, Ooredoo customers will now be able to surf the internet, check emails and stay social at the same cost as all other Passport destinations when flying on any airline and aircraft connected by AeroMobile's network. AeroMobile inflight mobile services are available on 22 airlines worldwide including Kuwait Airways, Emirates, Turkish Airlines, Qatar Airways and Etihad Airways in the Middle East.

Ericsson and Panasonic Avionics Bringing Connectivity to the Skies with 5G Ready Platform

January 2, 2019 - Ericsson and Panasonic Avionics Corporation (Panasonic) have announced that Ericsson's Core Network as a Service solution is now live, supporting connectivity services across multiple

markets served by Panasonic. Ericsson's Core Network as a Service solution will help Panasonic and its subsidiary AeroMobile, a global GSMA telecoms operator, provide data, voice and messaging services to the millions of airline passengers that use these services in flight. The collaboration between Ericsson, Panasonic and AeroMobile started in 2016 and is now fully operational and delivers services to Panasonic customers worldwide. As part of Panasonic's initiative to bring a superior connected experience onboard commercial aircraft, Panasonic and Ericsson have seamlessly migrated the existing service operating across a global fleet of aircraft onto the Core Network, delivered as a Service, while maintaining network performance and customer experience.

Hughes to Supply BGAN Satellite Terminals for US Space and Naval Warfare Systems Center

January 7, 2019 - Hughes Network Systems announced that U.S. Space and Naval Warfare Systems Center (SSC) Atlantic ordered over 200 of the Hughes 9211 Broadband Global Area Network (BGAN) satellite terminals. Placed through Hughes partner Marshall Communications Corporation, the order outfits SSC Atlantic with the world's smallest and lightest High Data Rate (HDR) terminal, enabling mission-critical military communications that are mobile and easy to deploy. Filling a vital requirement for the military, the Hughes 9211 BGAN terminal offers high-speed satellite connectivity in a light-weight and ruggedized device that can deploy quickly and easily in the harshest environments. Delivering high-throughput speeds over 650 kbps with built-in, multi-user Wi-Fi access, the 9211 BGAN supports multiple team members simultaneously and overcomes Line-of-Sight (LoS) limitations. With low power consumption, the terminal also includes a built-in compass and audio tone for signal acquisition. To date, Hughes has delivered these terminals to serve military, media correspondence, public safety and mobile health care needs.

Marlink Expands VSAT Services to Transpetrol Tanker Fleet

January 7, 2019 - Marlink has been awarded a contract renewal to expand its Sealink VSAT service to international ship owner Transpetrol. The renewal secures access to Marlink's global network and specially-chosen business critical VSAT solutions for the entire tanker fleet and two planned new buildings due for delivery within 18 months. Operating a sophisticated and diverse fleet from medium range tankers to Aframax and Very Large Gas Carriers on global routes, Transpetrol's need for always available data and voice communication for operations and crew welfare is addressed by a standardised and cost-effective solution integrating Global Ku-band VSAT, with L-band back-up.

Astrocast Launches IoT into Space

January 7, 2019 - Astrocast announced the launch of 3 new pilots of its Low Earth Orbit Nanosatellite Network. The pilots with Actia, Marine Instruments, and Swiss Fresh Water highlight the power of satellite networks to deliver affordable communications to the world's most remote areas. Designed specifically for IoT, Astrocast's two-way system allows companies to monitor and control their remote assets, including over-the-air upgrades at lower latency and cost than existing satellite communications networks. Currently only 10% of the world is covered by cellular networks and less than 1% of the world is covered by IoT networks like LoRaWAN or Sigfox. With the launch of its first L-Band, two-way communication nanosatellite in December, Astrocast plans to deliver global accessibility at an affordable price. Until today, satellite communications were cost prohibitive for most companies. Now, even small companies with a big impact, like Swiss Fresh Water that is bringing water purification to remote villages around the world, are able to monitor their machines from anywhere. Astrocast is a nanosatellite network of 64 cubesats specifically designed to transmit and receive low bandwidth data from IoT devices.

Comtech Telecommunications Announces Telematics and Navigation Contract Renewal

January 7, 2019 - Comtech Telecommunications announced that during its second quarter of fiscal 2019, its Enterprise Technologies group, which is part of Comtech's Commercial Solutions segment, has received a renewal contract for various navigation and telematics services worth \$1.4 million from a Fortune Global 500 company. The Enterprise Technologies group is a leading provider of precise device location, mapping and messaging solutions. Sold around the world to mobile network operators, government agencies, and Fortune 100 enterprises, our platforms locate, map, track and message.

Intelsat Joins GSMA to Spur Integration of Satellite and Terrestrial Solutions, Create Hybrid Networks, and Advance 5G Development

January 8, 2019 - Intelsat has joined GSMA, the organization representing mobile operators worldwide, to further strengthen the integration of satellite and terrestrial technologies and advance 5G deployments. Intelsat is now a full member of the London-based GSMA. The association unites more than 750 operators

with over 350 handset and device makers, software companies, equipment providers, and internet companies as well as organizations in adjacent industry sectors. Satellites have a long-established record of complementing terrestrial mobile networks to ubiquitously, seamlessly, and cost-effectively deliver connectivity in and around cities as well as to more remote and rural regions. With demand for broadband growing exponentially, driven by consumers as well as by machine-to-machine and Internet-of-Things applications, the development of fully integrated, hybrid satellite and terrestrial networks will be essential to meeting that demand and in an efficient and cost-effective manner. Incorporating the strengths of different technologies under one seamless network will accelerate the development of the 5G network architecture. This will deliver enhanced connectivity to a world in constant motion and expand opportunities for the entire MNO ecosystem, a shared goal of Intelsat and the GSMA.

Comtech Telecommunications to Acquire Solacom Technologies Inc

January 8, 2019 - Comtech Telecommunications has agreed to acquire Solacom Technologies, a leading provider of Next Generation 911 (NG911) solutions for public safety agencies, for \$33.0 million. With safety and security markets at growth inflection points, the Solacom acquisition is a significant step in Comtech's strategy of enhancing solutions offerings, particularly with respect to NG911 capabilities. Comtech look forward to working with Solacom's talented workforce to deliver innovative market-leading products and services to both domestic and international public safety agencies.

Norwegian Passengers Gets Connected with Inmarsat GX Aviation

January 8, 2018 - Inmarsat partner Collins Aerospace is helping Norwegian airline passengers experience free and premium onboard Wi-Fi with its CabinConnect™ high-speed broadband connectivity solution, powered by GX Aviation. Available on Boeing 787-9 Dreamliner and 737 MAX long-haul flights, the new service, which will debut on the majority of Norwegian's transatlantic flights, enables passengers to stream video and music content, browse the web, access social media, voice and messaging services over our award-winning, high-speed broadband network. Voted Skytrax 2018 World's Best Low-Cost Long-Haul Airline, Norwegian received its first connected Boeing 787-9 Dreamliner, featuring American author Mark Twain on the tailfin, on 18 December 2018. The new aircraft has entered service and this milestone marks the first time Norwegian passengers can experience free inflight Wi-Fi for the full duration of long-haul flights.

Newtec Boosts Affordable Broadband across Asia-Pacific on Kacific1

January 9, 2019 - Newtec announced that its Newtec Dialog® VSAT multiservice platform has been selected by broadband satellite operator, Kacific, for its new High Throughput Satellite, Kacific1, to significantly expand its broadband service delivery in underserved areas of South East Asia, New Zealand and the Pacific Islands. The initial contract is for \$10million of Newtec Dialog hubs and this is expected to result in further terminal procurements totaling several million in the first years of service. Kacific1 will deliver affordable, high-speed internet broadband to telecommunications companies, internet service providers and governments throughout the region, with Newtec's Mx-DMA® return technology providing the highest possible bandwidth efficiency. The Kacific1 satellite features 56 high power subscriber spot beams, each with the capability to provide targeted capacity at high speeds. Kacific services enable access to high demand applications, such as community internet access and mobile backhaul that will help stimulate socio-economic activity throughout the region.

Comtech Satellite Modems to Support US Air Force Program

January 9, 2019 - Comtech EF Data has received a \$1.0 million equipment order from a defense contractor. The equipment will be deployed to support a United States Air Force program. The order specified the DMD1050TS L-Band Satellite Modem Board. The DMD1050TS is Comtech EF Data's latest generation modem board set targeted at critical government and military applications. The product complies with the widest possible range of U.S. Government and commercial standards and is compatible with the largest number of satellite modems in the industry. It is fully compliant with MIL-STD-188-165A, STANAG 4486 Edition 3 (EBEM), and the IESS-315 commercial standards at data rates up to 37 Mbps. Additionally, the DMD1050TS has successfully completed Phase I of Army Forces Strategic Command (ARSTRAT) WGS certification and is scheduled for final Joint SATCOM Engineering Center (JSEC) evaluation. The DMD1050TS L-Band Satellite Modem board offers a complete modem with FIPS certified TRANSEC on a compact PCB daughter board. The embedded TRANSEC capability is fully compatible with the TRANSEC capabilities in Comtech EF Data's DMD2050E and SLM-5650A Satellite Modems.

RigNet Introduces Intelligent Remote LTE Services

January 10, 2018 - RigNet introduced its CompleteConnect multi-band LTE services, the first application of which is available for remote operations. CompleteConnect ensures constant connectivity, high capacity, and high availability. It offers users an intelligent, durable, LTE solution that is easy to deploy and can be bundled with L-band and VSAT services to provide communications beyond LTE coverage areas. CompleteConnect is portable and features a rugged case with durable components to ensure reliability in harsh environments and under rough handling. It also comes with a SD-WAN switch which enables lowest-cost routing between carriers in remote regions, simplifying site management and uptime, while providing better security. CompleteConnect automatically switches between LTE providers and LTE and VSAT to give users the most extensive and reliable coverage. Also, because the networks it provides are separated at remote service sites, comingling of user communications at those sites is eliminated, further enhancing data security.

Capricorn Space to Purchase Initial S/X-Band Antennas for Australian Ground Network - West

January 15, 2019 - With the civil works underway at the first Australian Ground Network site near Geraldton in Western Australia (AGN-W), Capricorn Space announced that CGC Systems has been contracted to supply and install the first antenna systems on site. With implementation planning and execution now well advanced, Capricorn Space is poised to offer targeted ground segment service plans to satellite Operators who require southern hemisphere coverage. The initial development of the AGN-W site allows for six antenna systems with the first two being owned and operated by Capricorn Space to provide on-demand access to multiple customers.

Konnect Africa to Conquer the Ivorian Market for High-Speed Satellite Internet Access

January 15, 2019 - Konnect Africa, an initiative of the satellite operator Eutelsat dedicated to satellite broadband on the African continent, announced the launch of its Internet access offers in Côte d'Ivoire. Thanks to the latest satellite technologies, Konnect Africa is now helping to bridge the digital divide in Côte d'Ivoire by offering its broadband Internet offers to individuals and professionals, particularly outside major cities, where no reliable broadband solution is available. The Konnect range includes eight Internet access offers, ranging from 5GB to 30GB of data for Konnect Home residential offers, costing from 9,000 to 35,000 CFAF and adapting to all needs. Konnect Pro offers which provide superior performance corresponding to the expectations of professionals, offer between 50 and 500GB of data and are marketed from 58,000 CFAF.

Norsat Achieves \$2 Million in Ka-Band Satellite BUC Sales for COTM and Airborne Customers

January 15, 2019 - Norsat International Inc., a provider of unique and customized communication solutions for remote and challenging applications, has recently sold more than \$2 million USD in Ka-band ATOM Block Upconverter (BUC) products for Comms on the Move applications across North America, Asia and Europe. Since the release of Norsat's ATOM Ka Band series, Norsat has seen tremendous market uptake in the products for both the airborne satcom market and land based "Communications on the Move" market.

Boeing Invests in Isotropic Systems to Expand Satellite Communications Capabilities

January 15, 2019 - Boeing announced its investment in Isotropic Systems, a London-based startup pioneering next-generation solutions to better connect people and enterprises around the globe. By taking advantage of optical beam steering, Isotropic's innovative user terminals can simultaneously connect with several different satellites without increasing cost or complexity. This capability will help enable low-cost, mass-market broadband connectivity for consumers and help companies meet growing demand for satellite data, mobility and broadband services even in the most remote places. Isotropic joins Boeing subsidiary Millennium Space Systems and Boeing HorizonX Ventures portfolio startups Myriota, BridgeSat Inc. and Accion Systems in advancing the company's satellite and space-based capabilities. Isotropic is the second UK-based startup to join the HorizonX portfolio, following Reaction Engines in April 2018. Boeing HorizonX Ventures targets investments that help scale startup innovation in aerospace. Its portfolio includes companies specializing in autonomous systems, additive manufacturing, energy and data storage, advanced materials, augmented reality systems and software, machine learning, hybrid-electric and hypersonic propulsion and Internet of Things connectivity.

Torvald Klaveness Chooses Marlink Solution for Integrated Satcom and IT Management

January 16, 2019 - Marlink and its inhouse IT specialist unit Palantir are to be the preferred supplier for

vessels managed by Klaveness Ship Management AS. Vessel in the fleet will be equipped with an advanced solution, combining KeepUp@Sea remote IT service with Sealink VSAT connectivity, as well as XChange centralised communications management and global L-band back-up. This supports Torvald Klaveness' ambition of becoming the leading digital bulk operator while optimising their business operations through sophisticated IT and connectivity solutions.

Iridium Certus Goes Live

January 16, 2019 - Iridium Communications announced the commercial launch of its Iridium Certus broadband service, the first new capability activated from the company's \$3 billion Iridium NEXT satellite replacement program. Iridium Certus is a unique platform designed for the development of specialty applications and is the world's only truly global broadband service, offering on-the-move internet and high-quality voice access. The service enables mobile office functionality for deployed teams and two-way remote communication for assets, autonomous vehicles, trains, aircraft and ships at sea. This also includes safety-of-life services, where Iridium Certus is uniquely suited for the critical communications needs of teams operating beyond the reach of cellular coverage, including first responders and search and rescue organizations. This announcement marks the end of an extensive global testing phase, including beta trials with live customers; the initial service is targeted at maritime and terrestrial applications, with Iridium Certus aviation solutions expected later in 2019, once certified.

MOL to Install Fleet Xpress on New Vessel Types

January 17, 2019 - Mitsui O.S.K. Lines (MOL), one of Japan's largest shipping companies, is to increase the roll-out of Inmarsat Fleet Xpress across the remainder of its owned and managed fleet. The Japanese shipping company was among the earliest adopters of Fleet Xpress, deploying global high-speed broadband connectivity on the majority of its car carriers in 2016, shortly after the launch of the next-generation service. It currently has over 100 vessels fitted. MOL will now install Fleet Xpress across its managed and owned fleet of bulk carriers, tankers, pure car carriers (PCC), and LNG carriers.

RSCC Expands Satellite Communication Network Capabilities

January 17, 2019 - With the support of specialists from Istar LLC, RSCC successfully completed the installation and commissioning of five central stations based on UHP equipment to provide via-satellite communication using the Express-AM series spacecraft. This will enable RSCC to use the capacity of its satellites more efficiently and expand the capabilities of the satellite communication network, offering customers modern telecommunications services. The first subscribers are planned to be connected in February-March 2019. Three stations are deployed on the territory of the Dubna Space Communications Center (SCC). They will operate the subscriber terminals via the Express-AM6, Express-AM7, and Express-AM8 spacecraft. Another central station is deployed on the territory of the Zheleznogorsk SCC (to operate via the Express-AM33 and on the territory of the Khabarovsk SCC (to operate via the Express-AM5). This completed the first stage of deploying the largest multi-service satellite communications network (in terms of the territory covered) using UHP equipment.

Newtec and SATSOL Heighten Efficiency and User Experience for Solomon Islands

January 18, 2019 - Newtec has provided a Newtec Dialog® hub system to SATSOL, a teleport and Internet Service Provider (ISP) on the Solomon Islands. The Newtec Dialog platform will deliver IP connectivity for the Solomon Islands government, with a single hop service from remote islands to the capital, Honiara. SATSOL is currently rolling out the remote sites, initially in ten provincial hub locations. The education system will also benefit as the improved provincial network will be extended to secondary schools. As one of Solomon Islands' three Internet Service Providers (ISPs), SATSOL currently provides approximately 20% of the country's Internet bandwidth. The company owns and operates the highest teleport in Guadalcanal, overlooking the capital city of Honiara, and has built the largest wireless ISP (WISP) network in the country.

Tongan Fibre-optic Cable Outage Relieved by Satellite

January 21, 2019 - Since 20th January, Tonga Cable has been suffering an outage in the submarine cable network that connects the island nation to the outside world, plunging the island nation into digital isolation. The outage is ongoing and no timeframe is available for restoration of Tonga Cable's service. The sole international service available is currently provided via a Ku-band satellite network, operated by Kacific Broadband Satellite, and supplied in-country by ISP, EziNET. This is providing essential connectivity while Tonga Cable carries out repairs. Kacific is a provider of high speed satellite broadband and internet

into the Pacific Islands for government, business and community purposes. Tonga Cable Director, Paula Piveni Piukala, said that Kacific engineers are working with the company to provision additional internet and telephone capacity via satellite to enable priority communications during this period.

DOCOMO PACIFIC and Hawaii Pacific Teleport to Offers Satellite Access Solutions to Pacific Region

January 21, 2019 - DOCOMO PACIFIC, the leading provider of telecommunications services in Guam and the CNMI, and Hawaii Pacific Teleport (HPT), a Hawaii-based international provider of satellite and fiber-based communications, are making a major investment in connectivity enhancements by expanding their presence in the satellite teleport business. Through an exciting new partnership with HPT, DOCOMO PACIFIC is growing its telecommunications footprint by expanding its reach and capabilities to connect global customers through satellite teleport services. HPT will increase its existing telecommunications reach to those satellites not visible in Hawaii and benefit from DOCOMO PACIFIC's robust, dark fiber network extending throughout Guam and international fiber POPs.

Speedcast and PuntoNet Connect Galápagos Islands

January 22, 2019 - Speedcast is working with PuntoNet, an Ecuadorian telecommunications company, to provide the Galápagos Islands with improved connectivity services. PuntoNet is a long-time Speedcast partner for connectivity services throughout Ecuador. The Galápagos Islands have long faced connectivity issues due to their remote location approximately 1,000 km offshore the Ecuadorian coast. However, due to its incredible diversity in plant and wildlife, the Galápagos Islands have seen a rise in tourism over the past few years, especially from the cruise industry. Speedcast will now enable PuntoNet to provide the Galápagos Islands with up to 1.2 Gbps of bandwidth. The lower latencies from the MEO (Medium Earth Orbit) network will allow for improved video, VoIP, VPN, streaming and data services on the islands.

STCS Launches First iDirect DVB-S2X Network in Middle East

January 22, 2019 - STC Solutions Saudi Telecom Company (STCS), the leader of Information Communications Technologies (ICT) in the Kingdom of Saudi Arabia (KSA), will launch the first iDirect DVB-S2X network in the Middle East. Utilizing VT iDirect's iQ Series of remotes, its next-generation DVB-S2X technology will enable STCS to offer high-speed connectivity and expand its service offerings to meet the needs of high-bandwidth applications cost-effectively and efficiently. The technological move is in alignment with the digital transformation strategy that the KSA plans to realize by 2030. The iQ Desktop remotes are designed to serve a wide range of performance scenarios and service providers can add new features on demand, based on a future-proof software-upgradeable design. This will benefit STCS's clients across the KSA, such as users from the Government ICT and enterprises, and enhance cellular backhaul.

Globalstar Launches SPOT X Two-Way Satellite Tracker across Europe and North Africa

January 23, 2019 - Globalstar Europe Satellite Services announced that its SPOT X two-way satellite communications device is now available across Europe and North Africa. The latest generation of the popular SPOT family of products, SPOT X offers full two-way SMS and email as well as GPS tracking and a one-touch SOS button that instantly sends the user's GPS location to the GEOS International Emergency Response Coordination Centre (IERCC) over Globalstar's satellite network. The IERCC then transmits details to local first responders to dispatch help to the user's precise location. SPOT X is the only satellite messenger on the market to give users a permanent phone number, easy check-in function and a full, backlit QWERTY keypad for intuitive typing. SPOT X also offers the industry's longest battery life in both tracking and SOS modes and is priced competitively.

Viasat Community Wi-Fi Service Now Available to over One Million People across Mexico

January 24, 2019 - Viasat Inc. has announced that the Viasat Community Wi-Fi hotspot service is now available within walking distance to more than one million Mexicans living and working in thousands of rural Mexican communities. The Community Wi-Fi service is marketed locally in Mexico under the Conectaless brand. The Community Wi-Fi service uses a centralized Wi-Fi hotspot to connect to a Viasat satellite to deliver internet service to remote communities that previously had little or no internet connectivity. The service can be deployed with minimal local infrastructure investment, and can quickly bring cost-effective internet services to emerging markets where large gaps exist between demand and the affordability and availability of internet services.

NSSLGlobal's Iridium Certus Service Goes Live

January 24, 2019 - A global satcom and IT solutions provider NSSLGlobal is service ready for Iridium

Certus, the new L-Band service from Iridium Communications Inc, as part of the Service Provider agreement signed in August 2018. Maritime customers can get immediate access to the enterprise-grade global broadband functionality and high-quality voice capabilities offered by Iridium Certus – either as a standalone service or in conjunction with NSSGlobal’s VSAT IP@SEA service. Enabled by Iridium NEXT, Iridium Certus ensures that crews at sea are safely connected and maintaining consistent communication, regardless of location. It also offers a variety of speed classes with the initial service debuting at 352 Kbps and later upgradable via firmware to 704 Kbps in early 2019. Working in tandem with NSSGlobal’s VSAT IP@Sea, the Cobham SAILOR 4300 Iridium Certus terminal enables NSSGlobal to provide customers continuous connectivity while also offering its unique Cruise Control+ solution. This will enable users to fully manage their operational and crew communications, via NSSGlobal’s suite of value-added services, covering everything from crew entertainment, onboard IT management, cyber security to an integrated IP PBX.

Gilat Launches 5G-ready Satellite Backhaul Solution

January 24, 2019 - Gilat Satellite Networks announced the launch of a new powerful backhaul solution designed to deliver the high-performance required for next-generation services. The global trend of demand for higher throughputs and greater efficiencies will be further accelerated with 5G, generating exponential growth in network capacity as well as in the number and types of connected devices and services. As the leaders in LTE satellite backhaul, Gilat is now further enhancing and optimizing its SkyEdge II-c multi-service platform for 5G capacity, service and network availability targets, to deliver new levels of satellite connectivity in multiple dimensions from cellular nodes and to the most demanding applications. The enhanced SkyEdge II-c solution enables 2.5 Gbps throughput from a single forward carrier and 1 Gbps throughput from associated return channels, enabled by highly efficient DVB-S2X wideband transmission in the forward direction and Gilat’s innovative LDPC fast adaptive return access scheme. The SkyEdge II-c solution supports the full suite of current modems and capabilities, including GTP acceleration, Mobile-Edge Computing (MEC) and carrier grade Layer-2 and Layer-3 with GTP acceleration.

Resolute Mining Connects Syama Operations to the Cloud with SES Networks

January 24, 2019 - SES announced that Resolute Mining Limited is revolutionising its operations in Mali by bringing high-speed, low-latency connectivity to its Syama mining site. The fully-managed SES Networks satellite data connectivity solution enables enterprise cloud applications and helps enhance safety and productivity. Resolute Mining is building the world’s first purpose-built, fully automated sublevel cave gold mine at Syama and is adopting high-speed connectivity that enables the use of high-tech applications and equipment, among other capabilities. SES Networks’ fibre-like service delivered via its O3b Medium Earth Orbit satellite constellation extends the high-capacity fibre-optic network that Resolute Mining is installing throughout the mine.

Swarm Raises \$25 Million Series A to Build World's Lowest-Cost Satellite Network

January 24, 2019 - Swarm Technologies has closed its Series A financing round of \$25M. The round was led by Craft Ventures and Sky Dayton, founder of EarthLink and Boingo, with participation from Social Capital, 4DX Ventures and NJF Capital. Swarm will use the capital to accelerate software and hardware integrations for customer deployments, to continue hiring world-class talent, and to deploy a constellation of 150 satellites over the next 18 months. Swarm has developed the world’s smallest two-way communications satellites to enable low-cost, space-based, IoT connectivity anywhere in the world. The implications are profound for the agriculture, maritime, energy, and ground transportation industries as well as for global aid organizations. Swarm’s affordability, flexibility, and easy setup change the fundamentals for businesses that rely on data transmission to and from remote locations.

Mitsubishi Electric Develops High-Performance Waveguide Array Antenna

January 24, 2019 - Mitsubishi Electric Corporation has developed a slotted waveguide array antenna made of injection-molded resin which has been demonstrated to outperform conventional patch array antenna in side-lobe characteristics, cross-polarization characteristics and electric power efficiency, as well as offer reduced weight and cost. Mitsubishi Electric’s new antenna will enable radar systems to achieve enhanced observation range and accuracy and wireless communication systems to achieve greater communication capacity and speed. The company will now begin deploying the antenna for various applications, including as weather, airport radar remote-sensing radar and satellite communications.

Sky and Space Preparing to Engage with Australian Service Providers

January 25, 2019 - Nanosatellite startup Sky and Space Global will soon start engaging with Australian telcos and ISPs as it gears up for the first launches of its 200-strong "Pearls" constellation later this year. The constellation will provide coverage of equatorial regions around the globe, with the coverage area including the northern parts of Australia in WA, the Northern Territory and Queensland. Sky and Space operates on a wholesale model and has been gradually signing up a range of service providers in its coverage areas.

Speedcast Wins Contract for Fully-Managed Communications with Fred. Olsen Windcarrier

January 29, 2019 - Speedcast announced that the company has been awarded a new multi-year, fully-managed communications contract with Fred. Olsen Windcarrier, an entity of Bonheur ASA providing jack-up vessels used for offshore wind farm construction. Speedcast serves Fred. Olsen related companies on a global scale in both the Cruise and Energy segments, and the two companies have been partners for over three years. This new contract will provide a unique communications solution onboard Fred. Olsen Windcarrier's two offshore assets, Brave Tern and Bold Tern, combining VSAT and 4G/LTE to deliver data and voice services for corporate, operator and crew welfare networks. In addition, Speedcast will deploy an SD-WAN solution integrating multiple carriers seamlessly to deliver the best available connectivity and maximum network efficiency at all times.

NSSLGlobal and Teekay Sign New 4-year Maritime Satcom Contract

January 29, 2019 - A global satcom provider NSSLGlobal has announced a record breaking four-year, multi-million enhanced contract for communication and entertainment services with Teekay, one of the world's largest marine energy transportation, storage and production companies. The latest contract will provide an upgraded bandwidth capability across the Teekay fleet alongside the installation of NSSLGlobal's new virtualized Cruise Control+ appliance and the rollout of CrewVision, its crew entertainment service. The new contract cements the longstanding relationship between NSSLGlobal and Teekay dating back to 2004. The winning formula stems from NSSLGlobal's commitment to prioritizing key client relationships and working closely with Teekay to align its developments to Teekay's everyday needs and longer-term strategic objectives.

VTT and ESA Begin Strategic Cooperation to Develop Non-terrestrial 5G Networks

January 29, 2019 - A Finnish visionary research, development and innovation partner VTT and ESA have made an agreement on strategic partnership with an aim to develop 5G communications networks for the needs of the space industry. The three-year agreement will further deepen the long-term cooperation between VTT and ESA. The collaboration between VTT and ESA supports the Finnish Space Strategy. The strategic partnership between VTT and ESA provides excellent support for the objectives of the Finnish Space Strategy and responses to its priorities. Furthermore, the agreement shows that ESA has confidence in VTT's ability to develop cutting-edge technology for the space sector. ESA strives to collaborate with the kind of actors with competences that may have major impacts for the whole of Europe. VTT and ESA are currently examining what would be the requirements and the necessary technologies for the integration of 5G satellite networks and terrestrial networks, and the common use of 5G pioneer bands. VTT and ESA intend to implement several projects within the sector under the Letter of Intent over the next three years.

Luokung Technology Corp. Announces Cooperation with China-LBS

January 29, 2019 - Luokung Technology Corp. announced its strategic partnership with Beidou Navigation and Location Service (Beijing) Limited ("China-LBS"), which is the builder and operator of Beidou Navigation and Location Service Industrial Public Platform. The partnership aims at providing a leading spatial-temporal big data platform service in the area of intelligent transportation to the Company's users. China-LBS has been made the designated public platform for location-based services by Beijing government. China-LBS' platform has significant data resources in the navigation and location-based services industry, including aerial images data, satellite images data, digital elevation models, vector topography, geographical names database, navigation electronic maps, nautical charts and navigation channel charts, meteorological and hydrological data, users' location data of terminals. The platform also has significant shared bicycle tracks, transport and personal vehicle tracks in Beijing area. The accumulated data is over 200T (Trillion Byte). In addition, it provides lane-level high-precision location-based services on top of its lane data with centi-meter level accuracy for the express way.

Ursa and SI Imaging Services Announce Further Collaboration on Satellite Analytics

January 29, 2019 - Ursa Space Systems (Ursa) and SI Imaging Services (SIIS) have signed a multi-year contract, establishing Ursa's continued access to KOMPSAT 5 radar satellite imagery, distributed exclusively by SIIS. This contract renews a long-standing partnership, extending back to Ursa's beginnings as a satellite imagery analytics company and the companies are excited to continue to partner to provide intelligence, analytics, and new insights as Ursa's technology creates new products for a wide range of industries. SIIS was an early partner in Ursa's global network and their radar imagery is leveraged across Ursa's suite of analytics products. Among other things, Ursa's products offer insight into the global oil supply chain. Their leading product, Global Oil Storage Monitoring provides customers with weekly measurements of crude oil storage in 150 locations worldwide. The resulting increased transparency in energy markets has improved decision making for consumers.

Digicel's Connectivity in Tonga Restored by SES Networks Following Fibre Outage

January 30, 2019 - Mobile networks and broadband access services for business and consumer customers operated by Digicel Tonga were rapidly restored across the Polynesian archipelago by SES Networks' managed services following a severe fibre outage last week, announced SES. Under the agreement Digicel, a mobile network provider operating in the Caribbean, Central America and Asia Pacific, uses SES's reliable and comprehensive C-band beams to deliver satellite-enabled and scalable IP transit trunk circuits between Tonga and Fiji. SES Networks' Signature Telecom Solution enabled Digicel Tonga to ensure business critical services were available to customer across the island nation. Connectivity in the Polynesian country was disrupted when the Tonga Cable System, an 827-kilometre-long fibre optic submarine cable that links Sopo in Tonga and Suva in Fiji, was cut in two places on 20 January. The cable cuts occurred in relatively shallow offshore water, and it has been suggested that the damage may have been caused by a ship's anchor, negatively impacting education, commerce and tourism.

Kratos Commands Spacecraft Using the Air Force's Enterprise Ground Services Framework

January 30, 2019 - Kratos Defense & Security Solutions announced that it has commanded an on-orbit spacecraft using the U.S. Air Force's Enterprise Ground Services (EGS) framework. This demonstration directly follows on the heels of three successful pathfinder studies announced earlier by Kratos for migrating the Command and Control System - Consolidated (CCS-C) ground system to the EGS architecture. CCS-C provides consolidated Military SATCOM tracking, telemetry and command capability for 14th Air Force and 50th Space Wing. The Kratos demonstration supports the Air Force's strategic approach to implementing a common service-based satellite ground infrastructure that will evolve current satellite ground systems into one platform. EGS is a critical enabling technology that is focused on a sustainable, resilient space architecture that can respond to emerging threats and protect space-based assets. Kratos EGS software and services commanded an on-orbit spacecraft and demonstrated multiple capabilities supporting the EGS framework. These included the EGS service paradigm and dynamically allocating satellite ground resources and executing deployment automation with the ability to spin up new satellite command and control instances in less than 10 minutes.

mu Space Adds New Product to its IoT Lineup

January 31, 2019 - mu Space is adding a smart tracker to its Internet of Things (IoT) product lineup. mu Space CEO and founder James Yenbamroong revealed that his Thailand-based company is now working on the product's design and functionality. mu Space is developing a small-sized and sleek smart tracker that can provide a more accurate real-time location of things and assets. The device, James said, can be used to track the whereabouts of a person, to locate lost valuables or for industrial purposes such as the monitoring of cargo movement. "The smart tracker we'll develop is very discreet that people won't know it's a tracker by looking at it. You just stick it to a bag, wallet or vehicle, and you can easily locate things by using the smart tracker's mobile phone application," he added. Aside from the smart tracker, James also hinted on other future products that mu Space is planning to develop: "Included in our lineup are autonomous sensor systems and several IoT devices used in smart homes, smart cars and smart farms."

Gilat Awarded Contract for Broadband Solution over ISRO's GSAT-11 Satellite Covering India

January 31, 2019 - Gilat Satellite Networks Ltd. has been awarded a multi-year contract to provide equipment and services for broadband connectivity over ISRO's GSAT-11 across India. Larsen & Toubro (L&T), an Indian multinational company engaged in technology, engineering, construction, manufacturing and financial services, chose Gilat to supply the ground segment and operate four gateways. The Indian Space Research Organization (ISRO) launched the multi-spot beam satellite GSAT-11 last month, to

provide broadband coverage over India's mainland and islands, boosting connectivity to rural India and chose L&T to supply, install, commission and maintain GSAT-11 ground system network. GSAT 11 will enhance public welfare systems like e-banking, e-health, e-governance as well as provide a platform to demonstrate new generation applications. L&T chose Gilat's multi-application SkyEdge II-c platform to deliver broadband services across the country. Gilat's hubs will be placed and operated in the following main and diversity gateway sites in India: Ranchi, Delhi, Ahmedabad and Bangalore.

Telesat Partners with Alphabet's Loon to Design a Network Operating System for LEO Constellation

January 31, 2019 - Telesat and Loon, a subsidiary of Google's parent company Alphabet, entered into an agreement under which Loon will deliver a network operating system design that Telesat can use to support its global low earth orbit (LEO) satellite constellation. The design will adapt and expand on Loon's cloud-based, temporospatial software-defined network (SDN) platform that Loon uses today to deliver mobile data services over its fleet of stratospheric balloons. Under the agreement, Loon will adapt its SDN platform design to enable Telesat's LEO constellation to consistently deliver a fiber-like broadband experience on a global basis to both fixed and mobile terminals. The Loon SDN will be specifically customized for Telesat's use, giving its innovative LEO constellation a powerful and highly differentiated capability for serving growing commercial and government markets. The effort will result in Telesat having access to a scalable and robust network operating system that Telesat can use to optimize capacity across its global fleet of LEO satellites while minimizing latency and ensuring reliable connectivity to end-users worldwide.

BROADCASTING

BFBS Brings More British Programming to U.K. Troops in Remote Regions via SES

January 9, 2019 - Greater numbers of British forces and their families stationed abroad, including Royal Navy ships at sea, will receive a range of popular British TV and radio programming from the British Forces Broadcasting Service (BFBS) via SES satellites in a new multi-year agreement announced by SES. The increased capacity will enable BFBS to continue to deliver more popular British entertainment and sporting content across the globe, from Canada in the north-west and Falkland Islands in the south, across Europe and Africa and all the way to Brunei in the Far East. The service is an important part of making British forces and their families feel a little closer to home during deployments. BFBS's mix of popular news, sport and entertainment programming will be delivered via SES's NSS-12 and SES-6 satellites. BFBS operates as part of SSVC (Services Sound and Vision Corporation), a not-for-profit charity, under a ten-year contract with the UK Ministry of Defence to supply welfare by radio and TV worldwide.

Bloomberg Television Manages Media Production Network in New London Building with Apstra

January 11, 2019 - When Bloomberg Television opened its state-of-the-art broadcast facility in the company's new European Headquarters in London last year, network engineers from the company's IT infrastructure team collaborated with Apstra to successfully pilot its technology in order to gain visibility across and more effectively manage the network fabric supporting the building's media production systems. This network infrastructure demands high-performance and availability associated with the production of eight hours of live television and four hours of live radio programming in the building each day. It connects the building's central studio, three other broadcast positions around the building, two recording studios, a photography studio and three control rooms and all of BTV's production equipment. This IP data network includes 90+ network nodes, 400+ 40GbE network fabric links, 4,000+ network ports, and 2,000+ live network endpoints connecting at a combination of 10GbE, 40GbE and 100GbE – not to mention a 14 PB video storage system.

Thaicom Signs Long-term Contract with TrueVisions

January 14, 2019 - Thaicom Public Company Limited announced that True Visions Group Co., Ltd. one of Asia's leading pay TV providers, signed a long-term transponder capacity contract for continuing its pay TV service to audiences in Thailand. The company has retained several Ku-band transponders on the new Thaicom-8 satellite which delivers pay TV services to audiences in Thailand and across Asia including premier sports and entertainment events. TrueVisions will start using the service on the Thaicom-8 satellite from 2019 onwards. The transfer of subscribers from Thaicom-5 to Thaicom-8 is necessary as Thaicom-5 does not serve TrueVision's long-term requirements. The capacity agreement with TrueVisions is focused on the reliable delivery of one of the best entertainment and sports television platforms in

Southeast Asia at the 78.5 degrees East orbital position. The new Thaicom-8 satellite represents a total solution for broadcast and data clients in Asia with excellent Ku-band coverage. It supports the high demand for capacity of the broadcasting industry as it transitions from standard definition to high-definition and ultra-high definition.

GBC Transitions to a Digitized End-to-End News Environment Thanks to VSN

January 16, 2019 - The independent and public broadcasting corporation Gibraltar Broadcasting Corporation (GBC) has partnered with VSN to update all its news production systems and make a full transition to a modern and digitized newsroom. Thanks to VSN's technology and solutions, GBC will be able to leave behind the manual workflows. At the very core of the current GBC programme, VSN upgraded GBC's Media Asset Management solution (VSNExplorer MAM) and developed clever integration with other workflow partners, implementing this work effort by adopting an incremental roll out plan that releases more and more functionality to the wider GBC user community with a safe and confidence building approach.

Optus and Sky Television Agree on New 10-year Deal for Satellite Capacity

January 18, 2019 - Optus and New Zealand pay TV provider Sky Television have agreed a further 10-year agreement for satellite capacity. Under the deal, Optus will provide Sky with satellite capacity to 2031, with the current contract expiring in 2021. The contract is also conditional on Optus procuring fleet enhancements, including the successful launch of a new satellite at 160E to replace the existing D1 satellite. Sky is currently planning a hybrid service that uses satellite and internet deliver over its next generation Sky boxes, which are expected to be delivered later in 2019. Sky said that the hybrid delivery of content via satellite and internet was a key competitive advantage, particularly for sport. The new deal builds on a strong history between the two companies. Sky first went digital in 1997 when it acquired capacity on the Optus B1 satellite. Optus launched the D1 satellite in 2006, and in 2007 expanded its bandwidth to allow Sky to deliver HD content to its customers. Sky also noted that the renewal allows it to continue delivering on its roadmap for 4K and HDR content across New Zealand.

CMMB Vision Launches "XingYun" App for Commercial Services with 150 Audio-Video Channels

January 22, 2019 - CMMB Vision, a new-generation mobile multimedia service operator, announced that Global Vision has launched the XingYun connected car multimedia service app (Land Edition) ("XingYun"), which can access 150 channels of audio and video programs, including news, finance, music, movies, entertainment, etc. The public can freely download XingYun to their mobile devices, such as handsets, tablets and in-car AV systems through Google Play or App Store to instantly enjoy and experience HD, smooth, and rich audio and video content of XingYun. The launch of XingYun signifies a big leap forward for the Company's commercial operation in China. XingYun is the Company's connected-car multimedia service software application, which can access programming via Internet, or by vehicles equipped with the Company's satellite function "TM-Box" device. When connected via the satellite network, services can be received from anywhere in China (and Hong Kong) including all cities, suburbs, mountains, back-country and oceans. The service delivery has neither data-congestions nor data-charges. Currently many car-makers in China have already started to design-in the Company's satellite multimedia function "TM-Box" into new car models to render the function as a standard factory-installed feature for upcoming cars.

HISPASAT and Media Broadcast Satellite to Distribute the FunBox UHD Channel in EMEA

January 22, 2019 - HISPASAT together with the telecommunications services provider Media Broadcast Satellite have reached an agreement on a deal with an initial duration of five years to distribute one of Europe's most important UHD channels, FunBox UHD, in Europe, the Middle East and North Africa (EMEA). The channel, which belongs to the content provider SPI International, is a thematic channel about nature, travel and adventure, art music, culture and lifestyle. Its content allows viewers to explore breathtaking places, witness important cultural events and watch ultra-high-resolution films thanks to the 4K technology, which reveals all the images' nuances and details. The broadcast combines Media Broadcast Satellite's teleport capacities in Usingen (Germany) with HISPASAT's high-power 30W-5 satellite (H30W-5), with extensive coverage throughout the region specifically designed to distribute top-tier multimedia contents. This broadcast platform aims to become the most efficient and flexible medium for 4K channels to be distributed in Europe and North Africa thanks to HISPASAT's satellites in this region. Furthermore, this channel can be received in several cable-TV operator platforms in Spain, Portugal, Germany, Belgium, the Netherlands and Luxembourg, among others.

LAUNCH / SPACE

SpaceX Successfully Launched First GPS III Satellite

January 1, 2019 - GPS III Satellite, the newest generation of GPS satellites, brings new capabilities to users, including three times greater accuracy and up to eight times improved anti-jamming capabilities. The US Air Force and its mission partners successfully launched the first Global Positioning Systems III satellite Dec. 23 from Space Launch Complex-40 at Cape Canaveral Air Force Station, Florida. The Lockheed Martin-built satellite was carried to orbit aboard a Falcon 9 Evolved Expendable Launch Vehicle. The satellite is known as “Vespucci,” in honor of Amerigo Vespucci, the Italian explorer for whom the Americas were named. GPS III’s “Vespucci” separated from its upper stage approximately two hours after launch. Engineers and operators at Lockheed Martin’s Waterton facility will now begin on-orbit checkout and tests which are estimated to complete in six months. Operational use is expected to begin in about a year.

Successful Launch of Formation-flying Microsatellite Constellation Built by Space Flight Laboratory

January 8, 2019 - Space Flight Laboratory (SFL) has announced the successful launch of three formation-flying microsatellites built by SFL under contract to Deep Space Industries for HawkEye 360 Inc. The microsatellites were launched last year into low Earth orbit on December 3, 2018, from Vandenberg Air Force Base, California. The HawkEye 360 Pathfinder microsatellites will detect and geolocate radio frequency (RF) signals from VHF radios, maritime radar systems, automatic identification system (AIS) beacons, VSAT terminals and emergency beacons. HawkEye 360 will apply advanced RF analytics to this data to help customers assess suspicious vessel activity, survey communication frequency interference, and search for people in distress. SFL was selected for the mission by Deep Space Industries, the HawkEye 360 Pathfinder prime contractor, due to the importance of formation flying by multiple satellites for successful RF signal geolocation and analysis. SFL first demonstrated on-orbit formation control with smaller satellites in the 2014 Canadian CanX-4/CanX-5 mission.

Arianespace to Launch ANGELS, the French Industry’s First Nanosatellite, in 2019

January 9, 2019 - Arianespace and the French CNES space agency announced that they have signed a launch contract for the first nanosatellite completely built by French industry, called ANGELS (ARGOS Néo on a Generic Economical and Light Satellite). ANGELS will be launched as an auxiliary payload with the COSMO-SkyMed Second Generation (CSG 1) and CHEOPS satellites by a Soyuz rocket in 2019 from the Guiana Space Center, Europe’s Spaceport in French Guiana (South America). It is jointly financed and developed by the French CNES (Centre National d’Etudes Spatiales) space agency and NEXEYA, an innovative industrial group active in the aerospace, defense, energy, rail and automotive markets. The satellite will be fitted with a miniaturized ARGOS Néo instrument, which is 10-times smaller than the equivalent previous-generation device. The instrument collects and determines the position of low-power signals and messages sent by the 20,000 ARGOS beacons now in service worldwide. Two project teams – CNES and NEXEYA for ANGELS, and CNES, Thales Alenia Space and Syrlinks for ARGOS Néo – are working together on this French space project. The ANGELS nanosatellite will have a liftoff mass of approximately 30 kg. at launch, including its separation device, and will be positioned in Sun-synchronous orbit at an altitude of more than 500 km.

SSTL Completes Small Geostationary Platform Build for EUTELSAT QUANTUM

January 9, 2019 - Surrey Satellite Technology Ltd (SSTL) has completed the build of the platform for EUTELSAT QUANTUM, the world’s first geostationary telecommunications satellite that will be fully reconfigurable in orbit. The EUTELSAT QUANTUM satellite is being built under a public-private partnership between the European Space Agency (ESA) and the satellite operator Eutelsat with Airbus as the prime contractor. Today the satellite platform, which has been designed and manufactured by SSTL in Guildford, was on view to invited guests at a special event to mark the handover to Airbus who will complete the satellite assembly and testing in Toulouse. The EUTELSAT QUANTUM platform consists of a precision-engineered composite central thrust tube standing at 2.5 meters tall which houses a bipropellant chemical propulsion system that will enable the satellite to stay on station throughout its 15 year lifetime, and SSTL’s newly developed GEO momentum wheels and gyro which will maintain the satellite in a stable attitude and enable adjustments in the satellite’s orbital position. EUTELSAT QUANTUM uses technology developed by Airbus and SSTL in the UK under the ESA Advanced Research in Telecommunications Systems program (ARTES) and supported by the UK Space Agency.

Arianespace to Launch a French Astronomy Mission in 2019: the EyeSat Triple Cubesat

January 9, 2019 - Arianespace and the French CNES space agency announced the signature of a launch services contract for the EyeSat Cubesat, an astronomy mission that will study zodiacal light as well as image the Milky Way. EyeSat is a triple Cubesat-sized nanosatellite designed to study the zodiacal light and image the Milky Way. The EyeSat nanosatellite is being financed and developed by the French CNES (Centre National d'Études Spatiales) space agency within the scope of the Janus project (Jeunes en Apprentissage pour la réalisation de Nanosatellites des Universités et des écoles de l'enseignement Supérieur), designed to encourage students in universities and engineering schools to develop their own nanosatellites. EyeSat will be launched in 2019 as an auxiliary payload with the COSMO-SkyMed Second Generation (CSG 1) and CHEOPS satellites from the Guiana Space Center (CSG) aboard a Soyuz launcher. The satellite is in the form of a triple Cubesat and is fitted with an instrument called IRIS, which is a small space telescope. It will have a mass at liftoff of approximately 8 kg. and will be placed in Sun-synchronous orbit at an altitude of about 500 km.

ESA Chooses Thales Alenia Space to Lead the FLEX Mission

January 10, 2019 - Thales Alenia Space announced that it has signed a contract with the European Space Agency (ESA) to lead the Fluorescence Explorer (FLEX) satellite mission. FLEX was selected in 2015 as ESA's eighth Earth Explorer mission, and is scheduled for launch in 2023. It will make use of an innovative instrument, named FLORIS, to map the Earth's vegetation fluorescence to quantify photosynthetic activity. Thales Alenia Space is program prime contractor and has also signed a novation agreement to integrate the contract that ESA awarded to Leonardo in 2016 concerning the development of the FLORIS instrument. The overall contract is worth approximately €150 million. Thales Alenia Space will be leading a consortium for the FLEX program that includes its own subsidiaries and partners from the space industry. Thales Alenia Space in the UK will be in charge of the satellite propulsion system, as well as assembly, integration and testing (AIT). Thales Alenia Space in Spain will provide the radio-frequency subsystem, including X-band and S-band transponders, and RUAG will contribute to the design and production of the platform.

SSL to Define Small Satellite Requirements for Environmental Defense Fund

January 10, 2019 - SSL announced that it is leveraging Maxar's combined capabilities for a contract to define requirements for a small form-factor satellite that will monitor and measure methane emissions from oil and gas facilities around the world. The satellite, named MethaneSAT, will enable Environmental Defense Fund (EDF) to change the way we detect and analyze methane emissions and understand and combat climate change. Following design development, EDF anticipates awarding a contract in 2019 for the final design and manufacturing of the satellite. MethaneSAT will provide global, high-resolution detection of methane emissions from regions that account for over 80 percent of global oil and gas production on a weekly basis. The satellite's high precision will enable it to detect and quantify both high- and low-emission sources and accurately attribute them to relevant oil and gas infrastructure. To enhance its solution, SSL is working together with Maxar's DigitalGlobe, which is the global leader in commercial high-resolution satellite imagery. DigitalGlobe will provide technical input on the satellite payload design and guidance on the overall mission plan.

Last Batch of Iridium NEXT Satellites in Orbit

January 11, 2019 - The last batch of Iridium NEXT satellites, built by Thales Alenia Space, was successfully launched from Vandenberg Air Force Base in California. With this successful eighth launch, the Iridium NEXT fleet is now fully deployed to low earth orbit. The operational constellation comprises 66 satellites, at an altitude of about 780 kilometers, organized in six orbital planes, each containing 11 satellites, plus nine spare satellites in a parking orbit and six more ground spares. The major challenge for Thales Alenia Space, as prime contractor for the Iridium NEXT program, was to deploy a complex, end-to-end turnkey satellite system, while also ensuring compatibility between the old and new generations of Iridium Block One satellites. It marks the first time that an operator and a manufacturer have worked hand-in-hand to replace a complete constellation of 66 satellites, one-by-one, without any interruption in user service.

China Launches Zhongxing-2D Satellite

January 11, 2019 - China sent Zhongxing-2D satellite into space on a Long March-3B carrier rocket from the Xichang Satellite Launch Center in Sichuan Province. The Chinese-made communication and broadcasting satellite will provide transmission service for the country's radio, television stations and cable television networks. The Zhongxing-2D satellite and Long March-3B carrier rocket were developed

and produced by the China Aerospace Science and Technology Corporation.

Airbus Wins DARPA Contract to Develop Small Constellation Satellite Bus for Blackjack Program

January 14, 2019 - Airbus Defense and Space Inc. has been awarded a contract from the US. Defense Advanced Research Projects Agency (DARPA) to develop a satellite bus in support of the Blackjack program. DARPA describes the Blackjack program as an architecture demonstration intending to show the military utility of global low-earth orbit constellations and mesh networks of lower size, weight and cost. DARPA wants to buy commercial satellite buses and pair them with military sensors and payloads. The bus drives each satellite by generating power, controlling attitude, providing propulsion, transmitting spacecraft telemetry, and providing general payload accommodation including mounting locations for the military sensors.

First Spacebus Neo Service Module Assembled

January 14, 2019 - On 27 December 2018, Thales Alenia Space assembled the avionics and Xenon propulsion modules to form the service module of the first Spacebus Neo satellite, KONNECT, a high throughput satellite ordered by Eutelsat. The avionics module was built in Thales Alenia Space (TAS) facilities in Cannes and houses all the functions required to power, control and monitor the satellite. The Xenon propulsion module (XPS) was assembled in Belfast by Thales UK and shipped to Cannes in the week before Christmas. It is the structural backbone of the satellite and contains the electric propulsion system to both raise the satellite to its operational orbital position and keep it in place during its 15 years of operational lifetime. The resulting service module makes a perfect space vessel for the telecommunications payload, which will be installed onto it, fully tested, and then launched into space. After reaching its final geostationary orbit, the satellite will provide telecommunication capabilities customised to satisfy the requirements of the operator.

CGWIC Signs Agreement with Satellogic to Launch Earth Observation Constellation of 90 Satellites

January 15, 2019 - China Great Wall Industry Corporation (CGWIC) announced a Multiple Launch Services Agreement (MLA) with Satellogic, a private Argentine company specializing in Earth-observation satellites. CGWIC will launch 90 of Satellogic's spacecraft from the Taiyuan Satellite Launch Center. The first launch – scheduled for later this year – will deliver a dedicated payload of 13 of Satellogic's spacecraft to Low Earth Orbit on a Long March 6 (LM-6) rocket. Satellogic's team of world-class data scientists is already leveraging its current fleet of spacecraft to deliver planetary scale insights and solutions for a variety of industries, including agriculture, forestry, oil and gas, and finance and insurance. The 90 spacecraft that Satellogic announced under this agreement will form an Earth Observation Satellite Constellation that will remap the planet at one meter of resolution every week and dramatically reduce the cost of high-frequency geospatial analytics. This MLA marks another milestone in the CGWIC-Satellogic cooperation: it will be the first time that the new generation Long March launch vehicle will provide launch services to international customers. To date, CGWIC has successfully launched Satellogic's first demonstration cubesat and 5 spacecraft. As per the terms of a previously existing agreement, CGWIC is poised to deliver another 3 spacecraft to low-earth orbit in 2019. The first LM-6 launch under this MLA will bring the total number of Satellogic's commercial satellites in orbit to 19.

GMV Takes Part in the 'Mars Sample Return' Mission

January 15, 2019 - GMV is taking part in the Mars Sample Return (MSR) mission, jointly run by the European Space Agency and NASA, which aims to make further headway in the exploration of Mars and bring Martian soil samples back to our planet. GMV is taking part in three activities within this mission. Firstly, it leads the rendezvous GNC system of the Earth Return Orbiter (MSR-ERO), the main purpose of which is to develop and validate the image processing algorithms together with the navigation cameras that will generate measurements for estimating the OS orbit for later capture. Secondly and in parallel, as part of one of the Phase A/B studies of the Earth Return Orbiter and led by Thales Alenia Italy, GMV has responsibility for guidance, navigation and control (GNC) in the search, rendezvous and capture phases of the Martian sample container. During this activity, scheduled to run for 15 months, GMV will take on analysis, design, risk control, development and verification of the rendezvous system. This key phase, centering on return of the samples from Mars, has been of critical priority for the international science community for over a decade now. Finally, as part of the activities of the Sample Fetch Rover, SFR, GMV is working in the two consortiums that are currently designing two possible solutions at system level.

Launch Success of the Innovative Satellite Technology Demonstration-1 aboard Epsilon-4

January 18, 2019 - Japan Aerospace Exploration Agency (JAXA) launched the Innovative Satellite Technology Demonstration-1 aboard the fourth Epsilon Launch Vehicle (Epsilon-4) from the JAXA Uchinoura Space Center. The launch and flight of Epsilon-4 occurred nominally. All seven satellites separated from the launch vehicle successfully; the Rapid Innovative Payload Demonstration Satellite 1 (RAPIS-1) was jettisoned from the launch vehicle approximately 51 minutes 55 seconds into launch. Thereafter, other onboard satellites - MicroDragon, RISESAT, ALE-1, OrigamiSat-1, Aoba VELOX-IV and NEXUS - were respectively separated from Epsilon-4.

ULA Successfully Launches NROL-71 in Support of National Security

January 19, 2019 - A United Launch Alliance (ULA) Delta IV Heavy rocket carrying a critical payload for the National Reconnaissance Office (NRO) denoted NROL-71 lifted off from Space Launch Complex-6 on Jan. 19. The mission is in support of our country's national defense. The mission launched aboard a Delta IV Heavy, comprised of three common booster cores each powered by an Aerojet Rocketdyne RS-68A liquid hydrogen/liquid oxygen engine producing a combined total of more than 2.1 million pounds of thrust. The second stage was powered by an AR RL10B-2 liquid hydrogen/liquid oxygen engine. NROL-71 is ULA's first launch in 2019 and 132nd successful launch since the company was formed in December 2006.

Rocket Lab to Launch Dedicated Electron Mission for DARPA

January 22, 2019 - Small satellite launch company Rocket Lab announced that its first mission of 2019 will be a dedicated launch of a 150kg satellite for the US. Defense Advanced Research Projects Agency (DARPA). The mission highlights US Government demand for the type of responsive, ultra-flexible and rapidly acquired launch service that characterizes the Rocket Lab launch experience on Electron. DARPA's Radio Frequency Risk Reduction Deployment Demonstration (R3D2) mission is scheduled for launch in late February and intends to space-qualify a proto type reflect array antenna to improve radio communications in small spacecraft. The antenna, made of a tissue-thin Kapton membrane, packs tightly inside the small satellite for stowage during launch, before deploying to its full size of 2.25 meters in diameter once it reaches low Earth orbit. This high compaction ratio enables larger antennas in smaller satellites, enabling satellite owners to take advantage of volume-limited launch opportunities while still providing significant capability. The mission could help validate emerging concepts for a resilient sensor and data transport layer in low Earth orbit - a capability that does not exist today, but one which could revolutionize global communications by laying the groundwork for a space-based internet.

SpaceHorizon Announces Small Satellite Launch Services Portfolio

January 22, 2019 - A Canadian firm providing transportation to space, SpaceHorizon has announced the immediate availability of its launch services portfolio and is accepting orders for missions beginning in late 2019. The company has assembled a diverse portfolio of launch services to provide timely transportation into space, leveraging the growing number of commercial companies using new business models and technology to lower the cost to orbit. Next-generation small satellite launchers provide commercial ventures, research organizations, and governments with right-sized access to orbit and more independence on launch schedule and orbital delivery. Today's small satellite mission can be anything from a single sub-kilogram PocketQube to multiple dorm fridge-size ESPA-class satellites deployed in the same orbital plane. One launcher won't fit all needs. SpaceHorizon is working with several established and emerging launch firms to provide a balanced catalog of services for placing satellites into orbit, giving the customer options based on payload mass, orbit, budget, time to launch, and established flight record.

OneWeb's First Satellites Arrive in French Guiana in Preparation for the First OneWeb Launch

January 22, 2019 - OneWeb announced that its first satellites have successfully arrived in Kourou, French Guiana as the company prepares for its first launch on February 19th. The satellites were manufactured by OneWeb Satellites, a joint venture between OneWeb and Airbus that brings combined expertise in communications, manufacturing, and space to develop ultra-high performance satellites through a revolutionary new advanced manufacturing process. The six ultra-high performance satellites delivered were built at OneWeb Satellites's state-of-the-art manufacturing facility in Toulouse. Future satellites will be built at both the Toulouse facility and at a second facility in Exploration Park, Florida which will be inaugurated in the coming months. With the first satellites of the constellation launched, OneWeb plans to launch more than 30 satellites at a time on a monthly basis starting later in 2019 and will begin customer demos in 2020 with full twenty-four-hour global coverage beginning in 2021.

System Requirements Review Completed for Telesat's LEO Constellation

January 24, 2019 - Telesat announced that the two teams it contracted with last year to develop system designs for Telesat's global low earth orbit (LEO) satellite constellation have successfully completed System Requirements Reviews. One of the teams is Airbus Defence and Space. The other is a consortium of Thales Alenia Space and Maxar Technologies, the owner of SSL and MDA. Each team is continuing to advance their detailed designs for the complete LEO system, both space and ground segments. Telesat's global LEO constellation will revolutionize the delivery of high capacity broadband services by leveraging Telesat's innovative, patent-pending orbital architecture, global priority spectrum rights, and the most advanced antenna, digital processing, optical communications, launch and manufacturing technologies. It will offer an unsurpassed combination of capacity, speed, affordability, security and resiliency with latency that is equal to, or better than, the most advanced terrestrial networks. Able to serve the entire globe, Telesat LEO will help satisfy many of the world's most challenging communications requirements such as accelerating 5G expansion, bridging the digital divide with fiber-like services into remote communities, and setting new levels of performance for commercial and government connectivity on land and in growing maritime and aeronautical broadband markets.

New Shepard Successfully Flies 8 NASA Research & Technology Payloads to Space

January 25, 2019 - Blue Origin demonstrated the versatility of the New Shepard system by taking 8 NASA-sponsored research and technology payloads into space. This flight was dedicated to NASA's Flight Opportunities program, an essential program for researchers providing access to microgravity for technology development. Blue supports NASA's Flight Opportunities program and its role in perfecting technology for a future human presence in space. New Shepard's reusability is lowering launch costs and creating routine access to space. Lowering the cost of microgravity research increases the opportunities for universities, government researchers and entrepreneurs to test payloads and technologies in space. The launch was the 10th successful mission for the New Shepard program and the 4th flight for this vehicle. It was another great practice run towards regular payload flights with our growing fleet of launch vehicles. Flying New Shepard more frequently is critically important to the future of Blue Origin. It moves us toward our ultimate goal to lower the cost of access to space and move heavy industry off Earth so we can use space to benefit Earth. Additionally, the continued success and proven stability of this configuration on a subscale confirms we are using the methods, operations and technology needed for our larger scale programs. In an upcoming mission, New Shepard will take payloads to space from around the world.

PSLV-C44 Successfully Launched Microsat-R and Kalamsat-V2

January 25, 2019 - India's Polar Satellite Launch Vehicle (PSLV-C44) successfully injected Microsat-R and Kalamsat-V2 satellites into their designated orbits. The PSLV-C44 lifted off from the First Launch Pad at Satish Dhawan Space Centre SHAR, Sriharikota in its 46th flight. Microsat-R was successfully injected into intended orbit of 274 km. After injection, two solar arrays of the satellite were deployed automatically and ISRO Telemetry Tracking & Command Network (ISTRAC) at Bengaluru assumed control of the satellite. Subsequently, the fourth stage (PS4) of the vehicle was moved to a higher circular orbit of 453 km after two restarts of the stage, to establish an orbital platform for carrying out experiments. Kalamsat-V2, a student payload, first to use PS4 as an orbital platform, was taken to its designated orbit about 1 hour and 40 minutes after lift-off. This flight marked the first mission of PSLV-DL, a new variant of PSLV with two strap-on motors. In the previous PSLV launch on November 29, PSLV-C43 had successfully launched India's HysIS as well as 30 customer satellites from abroad.

Blue Origin Breaks Ground on New World-class Engine Production Facility

January 25, 2019 - Blue Origin celebrated the official groundbreaking for its world-class rocket engine production facility in Huntsville. The plant will be built on 46 acres at the corner of Explorer Boulevard and Pegasus Drive in Cummings Research Park. The project includes more than 300 new jobs. Blue Origin was selected by United Launch Alliance (ULA) in September of last year to supply its next-generation Blue Engine 4, or BE-4, for the first stage of ULA's Vulcan Centaur Rocket. Blue Origin's BE-4 engine is the most powerful liquefied natural gas (LNG) fuelled rocket engine ever developed. Using an oxygen-rich staged combustion cycle, BE-4 is capable of producing 2,447 kN (550,000 lbf) thrust with deep throttle capability. BE-4 is currently undergoing full-scale engine development testing in company facilities in Van Horn, Texas. Full rate production will take place in Blue Origin's new engine manufacturing facility in Huntsville, Alabama. The BE-4 is America's next rocket engine and is made for both commercial and government missions. The production of this engine would end the nation's dependence on Russia for access to space

for critical national security space systems.

OHB and IAI Team to Offer Lunar Surface Access Service to the European Space Agency

January 29, 2019 - OHB System, a leading German manufacturer of satellites and Israel Aerospace Industries (IAI), signed a teaming agreement. Under the agreement, the companies will offer a commercial Lunar Surface Access Service (LSAS) for payloads up to 150 kg to the European Space Agency (ESA). Under the agreement between the companies, OHB System AG, based on its long successful heritage in space missions, will act as prime contractor and will manage the work with ESA and the developers of scientific payloads for the lunar lander. IAI, for its part, shall provide a version of its lunar lander which was co-developed and built for SpaceIL; flight-ready and preparing to launch next month from the US.

SSL Terminates Participation in DARPA's Robotic Servicing Program

January 30, 2019 - SSL has exercised its right to terminate participation in the Robotic Servicing of Geosynchronous Satellites (RSGS) program, a public-private partnership with the U.S. Defense Advanced Research Projects Agency (DARPA), citing a need to focus its resources on ensuring optimal returns when weighed against other capital priorities, such as WorldView Legion. SSL remains unwavering in its commitment to its customers on all existing contracts. SSL has notified DARPA that it has decided to discontinue its participation in RSGS, an option available at this time under the terms of the Other Transaction Agreement between SSL and DARPA. This decision is consistent with Maxar's commitment to disciplined prioritization of capital. Maxar remains confident in the potential of the on-orbit servicing market and the value of public private partnerships. SSL will also be terminating its associated contract with Space Infrastructure Services LLC, which SSL was awarded in June 2017 to develop a servicing spacecraft vehicle for the RSGS program. Signed in 2017, the Other Transaction Agreement called for DARPA to develop the dexterous robotic payload and provide a government-funded launch. SSL was responsible for funding the development of the spacecraft bus and integrating the resulting robotic servicing spacecraft with the launch vehicle, as well as providing operations staff over the full mission duration.

Blue Origin to Launch Telesat's Advanced Global LEO Satellite Constellation

January 31, 2019 - Telesat and Blue Origin have signed a multi-launch agreement that paves the way for the powerful New Glenn rocket to play a key role in Telesat's deployment of its global LEO satellite constellation that will deliver fiber-like broadband services anywhere on Earth. Telesat's LEO program will gain significant cost savings and other advantages by launching with Blue Origin's heavy-lift New Glenn. With this agreement, two of the most innovative and ambitious companies in the space industry are combining their expertise, capabilities, and resources to transform the global broadband and launch markets. Telesat and Blue Origin have established a strong working relationship and will collaborate on a range of technical activities to assure cost and performance objectives are achieved throughout the multi-launch program.

China Plans First Seaborne Rocket Launch in mid-2019

January 30, 2019 - China's first seaborne rocket launch is scheduled for mid 2019 with a Long March-11 carrier rocket set to blast off in the Yellow Sea. The Long March-11, with a length of 20.8 meters and a takeoff weight of about 57.6 tonnes, is the only rocket using solid propellants among China's new generation carrier rockets. It has a relatively simple structure and can be launched in a short time. The rocket can carry a payload of up to 350 kg to a sun-synchronous orbit at an altitude of 700 km and 700 kg to a low-Earth orbit at 200 km. It is mainly used to carry small satellites, and can take multiple satellites into orbit at the same time. A seaborne launch has many advantages over a land launch. For instance, the launch site is flexible, and falling rocket remains pose less danger. Using civilian ships to launch rockets at sea would lower launch costs and give it a commercial edge. It will also help lay the groundwork for developing reusable rockets and recovery technologies at sea. Another three Long March-11 launches on land are also planned this year.

EXECUTIVE MOVES

Speedcast Appoints Sebastien Lehnerr as Chief Operating Officer

January 2, 2019 - Speedcast International Limited announced that Sebastien Lehnerr is joining the

company as Chief Operating Officer. Lehnherr previously held numerous operational leadership roles at Schlumberger, the world's leading oilfield services company. At Schlumberger, Lehnherr was responsible for delivering global communications and information technology infrastructure and services including to some of the most remote and harsh places on earth, supporting critical business workflows and software applications for the company. Most recently Lehnherr oversaw cybersecurity for Schlumberger worldwide as Chief Information Security Officer. As Speedcast COO, Aberdeen-based Lehnherr will assume global responsibility over the organization delivering customer support, network operations, field engineering, capacity management, service implementation, as well as programs and projects management. Lehnherr is taking over from Keith Johnson in this role, as Johnson previously held a dual role as EVP of the Energy Division and COO.

RigNet Names Retired Admiral Jamie Barnett as Senior Vice President of Government Services

January 7, 2019 - RigNet announced the appointment of retired Adm. James Arden "Jamie" Barnett, Jr. as Senior Vice President of Government Services. Barnett will lead the company's efforts to build a meaningful business in the government sector by leveraging RigNet's bundle of technology services: cyber security services, communications services, and artificial intelligence services based on real-time machine learning. He will report directly to RigNet CEO and President, Steven Pickett. Before joining RigNet, Admiral Barnett was a partner with Venable LLP, a regulatory law practice based in Washington D.C., where he chaired the telecommunications group. In 2015, he was named a Top Lawyer in Washington for Cybersecurity by Washingtonian Magazine.

Rocket Lab Appoints Lars Hoffman as Senior Vice President, Global Launch Services

January 9, 2019 - Small satellite launch provider Rocket Lab has appointed Lars Hoffman to the role of Senior Vice President (SVP) - Global Launch Services, as the company enters its second year of commercial orbital launch operations. In his role as SVP - Global Launch Services, Hoffman will lead Rocket Lab's sales, business development and customer experience teams to continue delivering frequent, reliable and tailored launch services to the small satellite market. Hoffman brings with him more than 30 years of experience in national security and aerospace, following a distinguished US Air Force career and corporate executive roles in the commercial space sector. Hoffman joins Rocket Lab from his most recent role at SpaceX, where he was responsible for National Security Space (NSS) strategy and business development as Senior Director of Government Sales. The appointment comes as Rocket Lab begins its busiest launch year yet, with monthly orbital missions scheduled across the company's two private launch pads in Māhia, New Zealand and Virginia, USA.

Avanti Communications Announces Libby Barr as COO, Customer

January 14, 2019 - Avanti Communications Group announced the appointment of leading sales and customer services executive, Libby Barr, as Chief Operating Officer, Customer. Barr will also sit on Avanti's Executive Committee, effective immediately. In a newly created role, Barr will report to Group CEO, Kyle Whitehill, and will be responsible for managing the execution of Avanti's end-to-end customer relationship. She will oversee global Sales, Wholesale, Product Management, Marketing and Commercial. Barr joins Avanti from BT. At the company for nine years, she was most recently Managing Director of Customer Care and a member of the BT Consumer leadership team who grew revenues by more than £1.2bn in five years.

Maxar Technologies Announces CEO Transition

January 14, 2019 - Maxar Technologies, a global technology innovator powering the new space economy, announced the appointment of Daniel Jablonsky as President and Chief Executive Officer of Maxar, effective immediately. Jablonsky, who most recently served as President of DigitalGlobe, a Maxar Technologies company, will also join the Maxar Board of Directors. He succeeds Howard Lance, who has resigned from his roles as President and Chief Executive Officer and as a Director of Maxar.

Intelsat Announces Retirement of Chief Financial Officer

January 15, 2019 - Intelsat have announced that its Chief Financial Officer, Jacques Kerrest, plans to retire. He will continue in his role through the spring until a successor is appointed to ensure a smooth transition of duties. Since joining Intelsat in February 2016, Kerrest played an instrumental role in successfully completing \$15.5 billion in debt and equity transactions, achieving an improved capital structure for the company.

Integrasys Expands Presence in Asia Pacific Ronny Pramanta Joins as APAC Sales Manager

January 15, 2019 - Integrasys announced it is expanding its presence in Asia Pacific. The company is establishing an office in Jakarta, Indonesia, headed up by a newly appointed APAC Sales Manager, Ronny Manurung. Ronny Pramanta joins Integrasys with a strong background in the telco industry, most recently working with a number of VSAT providers, including Metrasat and Patrakom, amongst others. As well as in-depth knowledge of both the satellite and telecommunications industries, Pramanta brings a strong experience in technical sales.

Panasonic Avionics Appointed Kimberly Chainey as its General Counsel

January 16, 2019 - Panasonic Avionics Corporation (Panasonic Avionics) has appointed Kimberly Chainey as its General Counsel. Chainey is a legal leader and corporate generalist with over 15 years experience advising senior executives of Fortune 500 companies, venture businesses and government entities. As chief legal officer and a member of the executive team, Chainey will advise Panasonic Avionics' leadership on the company's strategic direction. Her responsibilities will include overseeing legal issues, promoting a disciplined compliance culture and analyzing legislation and its effect on the company. She will also manage commercial contracts and lead complex projects and transactions. Chainey will report directly to Jessica Hodkinson, the General Counsel of Panasonic Corporation of North America (PNA) with a dotted line reporting structure to Panasonic Avionics' Chief Executive Officer, Hideo Nakano.

AST & Science Names Chris Ivory to Leadership Team

January 24, 2019 - A designer and manufacturer of ultra-powerful LEO satellites, AST & Science has named satellite-industry veteran Chris Ivory to serve as chief commercial officer (CCO) and also chief executive officer (CEO) of the newly formed AST & Defense subsidiary. In addition, Ivory has been appointed U.S. general manager for NanoAvionics, a European satellite manufacturing company in which AST & Science acquired a controlling interest last year. In that role, he will spearhead NanoAvionics' growing business in the Americas. Ivory has more than 26 years of senior-level experience in the satellite and telecommunications industry. Most recently, he was executive vice president and general manager of commercial solutions for Globecomm. In that role, he served as business unit leader for satellite services across all commercial vertical market segments. Prior to joining Globecomm, Ivory served as vice president of land solutions for Global Eagle and senior vice president of government, enterprise and channel partners for EMC. He also held leadership positions with several other telecommunications companies in the U.S., Mexico and Argentina.

Goonhilly Appoints Chris Roberts to Run Data Centre Business

January 29, 2019 - Satellite communications innovator and space gateway Goonhilly Earth Station announced that data centre industry veteran Chris Roberts has joined its executive team as Head of Data Centre and Cloud. Chris's appointment comes as Goonhilly prepares to open a tier 3/4 data centre in Spring 2019, offering exceptional connectivity by linking global subsea cables with satellite communications and fibre. Chris brings more than two decades' experience in the data centre and cloud hosting industry including senior roles at Pulsant, Datapipe and iomart. Chris joins Goonhilly following a number of long-term consulting engagements and interim sales and channel partner roles. Most recently he was Partner and Alliances Manager, Europe at Megaport. Prior to that Chris was Director of Channel Sales at Pulsant following his role as Head of Channel and New Business at MTI. He has also worked at Datapipe, iomart, Quostar and PSINet.

REPORTS

Small-satellite Launch Services Market - Forecast to 2030: Q3, 2018 Update

January 4, 2019 - The "*Small-satellite Launch Services Market, Quarterly Update Q3 2018, Forecast to 2030*" report has been added to ResearchAndMarkets.com's offering. Small-satellites are at the spotlight of the evolution of space industry. Small-satellite ecosystem is expanding at an increasing pace, with new entrants offering new space solutions and existing players expanding their portfolio by investments in the small-satellite value chain. It becomes very important to investigate the past and current state of the small satellite market and forecast the future scenarios. Many small satellite constellation operators have advanced in their development processes and will generate continuous and recurring launch demand for their constellation installation and replacement missions. At present, nearly all small satellites use the rideshare capacity as a secondary payload on the existing launch vehicles. This makes their project

schedule and mission requirements dependent on the primary payload.

Satellite Broadband & Enterprise VSAT to Generate \$159 Billion in Next Decade

January 7, 2019 - NSR's *VSAT and Broadband Satellite Markets, 17th Edition* is the longest-running industry analysis of the fixed broadband satellite sector, including all key Markets (Fixed Enterprise VSAT, Consumer Broadband), verticals (Retail/Hospitality, Banking, Social Inclusion, Energy, Mil/Gov, Backhaul & Trunking, Direct-to-premises Consumer Broadband and Wi-Fi Hotspots) and regions (NAM, LAM, EU, MEA, ASIA). The study assesses the installed base of sites and subscribers in five different regional markets, investigates trends impacting market growth, forecasts service revenues, equipment shipments and revenues, and predicts satellite capacity demand and revenues for each market vertical, region and frequency. Beyond classic C-, Ku- and Ka-band FSS capacity, NSR also led the industry in forecasting use of High Throughput Satellites (HTS) break down into different bands (C-, Ku- & Ka-bands) for GEO-HTS systems and assesses the impact of Non-GEO HTS constellations in the Broadband Markets.

NSR Releases Commercial Satellite Ground Segment, 3rd Edition

January 21, 2019 - NSR's *Commercial Satellite Ground Segment, 3rd Edition* is the industry analysis and forecast of the commercial satellite ground equipment sector. The study leverages NSR's extensive and in-depth satellite industry knowledge. The report provides an honest assessment of market, scrutinizing the value proposition of market players.

NSR Releases VSAT and Broadband Satellite Markets, 17th Edition

January 29, 2019 - NSR's *VSAT and Broadband Satellite Markets, 17th Edition (VBSM17)* is the longest-running industry analysis of the fixed broadband satellite sector, including all key markets, verticals and regions. The report also analyzes capacity revenue trends in this challenging time for pricing, equipment vendor market share and Consumer Broadband addressable markets. Now standard in NSR's report, capacity and equipment forecasts are structured into FSS-C, -Ku and -Ka band, GEO-HTS-C, -Ku and -Ka band and non-GEO-HTS. Strategic insights on markets and verticals key to capturing growth in these current transformational times are core elements of this study.

UPCOMING EVENTS

The Global Space and Technology Convention (GSTC), February 14-15, Singapore,

The Global Space and Technology Convention (GSTC) is a leading space and tech event in Asia, showcasing the latest space technology developments, trending topics in the satellite scene, and innovations in the space startup ecosystem. Already in its 11th iteration, the event has grown to become a key platform in the region for dialogues on partnerships, and commercial collaborations between businesses, government and academia. GSTC 2019 will be held from 14 to 15 February 2019 at the St Regis Singapore. With the theme "Pushing the Innovation Frontier", GSTC 2019 aims to focus on emerging satellite technologies, along with new applications and paradigms in the NewSpace arena. All APSCC members can get a 20% discount to GSTC delegate passes at https://gstc2019.eventbrite.sg?discount=APSCCmembers_020

OTT Summit 2019, February 19-20, Singapore, <http://www.ottsummit.asia/>

ABU Digital Broadcasting Symposium, March 4-7, Kuala Lumpur, Malaysia, <http://dbs.abu.org.my>

The ABU Digital Broadcasting Symposium turns 15 in 2019 – a milestone that marks years of steady growth since its launch in 2005. From modest beginnings, DBS has become one of the region's leading events for the broadcasting industry. Held annually in Kuala Lumpur, and organised by the ABU, it now attracts more than 1,000 participants. Comprising a conference, an exhibition, masterclasses and workshops, the symposium is designed to provide broadcasters with the information needed to make the right decisions in the rapidly-changing digital age. When DBS began 15 years ago, many Asian broadcasters had not yet gone digital. Many have now made the transition, or are in the process of doing so. At the same time, an ever-growing range of digital technologies is becoming available, offering exciting new opportunities – and challenging decisions – for broadcasters. DBS aims to help them stay ahead of the curve.

CABSAT 2019, March 12-14, Dubai, UAE, <https://www.cabsat.com/>

Taking place in Dubai across 3 days, over 13,000 people will converge on DWTC to attend the foremost

annual event in the broadcast, satellite, content creation, production, distribution & digital media sector. Don't miss out, ensure you've got CABSAT 2019 firmly booked in your calendar!

Global Space Congress (GSC) 2019, March 19-21, Abu Dhabi, UAE,
<https://www.globalspacecongress.com/events/global-space-congress-2019/event-summary-ae6d3a25a75a4cb88ea19b02560959fa.aspx>

Global Conference on Space for Emerging Countries (GLEC 2019), April 24-26, Marrakesh, Morocco,
<http://www.iafastro.org/events/global-series-conferences/>

Satellite 2019, May 6-9, Washington DC, USA, www.satshow.com

Space Tech Expo 2019, May 20-22, Pasadena, CA, USA, <http://www.spacetecheexpo.com/>

Australasia Satellite Forum 2019, May 21-22, Sydney, Australia,
<http://www.talksatellite.com/asf2019flyer.html>

Satellite Industry Forum 2019, June 17, Singapore, <https://asiavia.org/events/sif-2019/>

ConnecTechAsia2019, June 18-20, Singapore, <https://www.connectechasia.com/>

Editorials and Inquiries

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

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

About APSCC

APSCC is a non-profit, international organization representing all sectors of satellite and space-related industries. The aim of the organization is to exchange views and ideas on satellite technologies, systems, policies and outer space activities in general along with satellite communications including broadcasting for the betterment of the Asia-Pacific region. Conferences, forums, workshops, and exhibitions are organized through regional coordination with its members in order to promote new services and businesses via satellite as well as outer space activities. APSCC membership is open to any government body, public or private organization, association, or corporation that is involved in satellite services, risk management or associate fields such as data-casting, informatics, multi-media, telecommunications and other outer-space related activities with interests in the Asia-Pacific region. More information is available at <https://apscc.or.kr/>