

APSCC Monthly e-Newsletter

August 2014

The Asia-Pacific Satellite Communications Council (APSCC) e-Newsletter is produced on a monthly basis as part of APSCC's information services for members and professionals in the satellite industry. Subscribe to the APSCC monthly newsletter and be updated with the latest satellite industry news as well as APSCC activities! To renew your subscription, please visit www.apsc.org.kr/sub4_5.asp. To unsubscribe, send an email to info@apsc.org.kr with a title "Unsubscribe."

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

INSIDE APSCC

APSCC 2014 Satellite Conference and Exhibition: New Landscapes for Satellites: Asia and Beyond

23-25 September 2014, JW Marriott Phuket Resort & Spa, Phuket, Thailand

Early Bird Registration ends on 8 August!

The 17th Asia-Pacific Satellite Communication, Broadcasting and Space Conference & Exhibition (APSCC 2014 Satellite Conference & Exhibition) will be held on 23-25 September 2014 at the JW Marriott Phuket Resort & Spa, Phuket, Thailand.

The APSCC annual satellite event is a global gathering for the executives in the satellite and the space-related industries and also is the "Must Attend" event not only in Asia but also worldwide will examine what the future holds for the satellite industry in the Asia-Pacific, a region of dynamic growth in economic development. The APSCC 2014 conference will explore the new and ongoing challenges/opportunities for the satellite industry, as well as focus on the key satellite service areas.

Please visit the APSCC 2014 official website (<http://www.apsc.org.kr/sub3.asp>) for more information.

The 3rd Satellite RF Interference Mitigation Workshop: a practical approach on facing the issue

22 September 2014, JW Marriott Phuket Resort & Spa, Phuket, Thailand

The APSCC Satellite RF Interference Mitigation Workshop will be a platform not only to share issues and cases during the satellite operation but also to discuss on the methods of preventing interference and coming up with a realistic solution to satellite interference from the "operation perspective". This year at the Satellite RF Interference Mitigation Workshop, the presenters as well as the participants will be able to exchange their knowledge and experience in the atmosphere of freedom. Through this workshop APSCC and Satellite operators will accelerate the active participation to build up a strong network for the Satellite RF Interference Mitigation efforts.

Please visit the APSCC 2014 official website (<http://www.apsc.org.kr/sub3.asp>) for more information.

SATELLITE BUSINESS

ViaSat and Eutelsat Enter the Agreement to Link High-Capacity Ka-band Satellite Networks

July 1, 2014 - ViaSat Inc. and Eutelsat Communications have entered into a pioneering agreement that will enable service access and roaming on each other's high-capacity satellite networks (KA-SAT for Eutelsat and ViaSat-1 for ViaSat). Both Ka-band networks, representing well over half of all Ka-band capacity on orbit worldwide, share the same high-capacity satellite ecosystem, enabled by the ViaSat Broadband System, along with other ground infrastructure owned and operated by Eutelsat and ViaSat. The resulting high-capacity service area will span North America, Europe and the Mediterranean Basin. Customers will be able to operate an array of fixed and mobile services including in-flight connectivity, maritime, emergency relief, oil and gas operations and government applications anywhere within the combined coverage areas. The agreement includes provisions for

future satellites and follow-on technologies as they complement current Eutelsat and ViaSat High Throughput Satellites. That future includes ViaSat-2, scheduled for launch in 2016, which is designed to cover a broader footprint in North America, Central America, the Gulf of Mexico, the Caribbean and to bridge the North Atlantic to form a blanket of high-capacity coverage across the region.

Airbus Defence and Space, Inmarsat Sign Agreement to Deliver High Speed Broadband Airborne Global Xpress Terminals

July 1, 2014 - Airbus Defence and Space and Inmarsat have signed an agreement covering high-throughput airborne Global Xpress (GX) terminals, confirming Airbus Defense and Space's leading airborne satcom expertise. This latest agreement unleashes high throughput satcom options for comms-on-the-move ISR (Intelligence, Surveillance and Reconnaissance) operations for aircraft – in particular helicopters – as well as for the Unmanned Aerial Vehicle (UAV) domain. Military and other government customers will now have access to Inmarsat's Global Xpress Ka-band service through Airbus Defence and Space's airborne portfolio. Global Xpress is set to be the world's first globally available commercial high-speed broadband service delivered via a Ka-band satellite network.

ORBIT and Inmarsat Sign MOA for Global Xpress Government Aero Terminals Opportunities

July 2, 2014 - Inmarsat and ORBIT have entered into a Memorandum of Arrangement (MOA) regarding the manufacture of aviation terminals for Global Xpress (GX) serving the government market. Inmarsat and ORBIT will work closely to identify specific opportunities in which ORBIT's technical offering is best suited to driving the uptake of GX by end-users requiring airborne satellite broadband connectivity. Under the arrangement, ORBIT will provide airborne tracking and communication GX antenna terminals, addressing further prospects identified in the government market, including unmanned aerial vehicles (UAV) and fixed and rotary wing platforms.

EUTELSAT 3B Satellite Fully Fired up at 3 Degrees East

July 6, 2014 - Following its successful launch on May 26, Eutelsat Communications announces that the EUTELSAT 3B satellite is now fully fired up and providing commercial services at 3 degrees East. Eutelsat's newest satellite is designed to increase and diversify capacity and reach of Europe, Africa, the Middle East, Central Asia and Brazil. The first commercial satellite to assemble Ku, C and Ka payloads in a single platform, it can operate up to 51 transponders through an innovative configuration that enables customers to select the frequency band most adapted to their applications and targeted service area. Overnight transfer of customer traffic onto the new satellite from the two Eutelsat satellites already at 3 degrees East (EUTELSAT 3D and EUTELSAT 3A) was completed in the evening of July 5. Having completed their missions at 3 degrees East both satellites will now be redeployed. EUTELSAT 3D is already on its way to 7 degrees East where it will be co-positioned with EUTELSAT 7A to increase capacity and in-orbit security for customers providing DTH, professional video, data and telecoms services in Europe, Turkey, the Middle East, Africa and Indian Ocean islands. It is scheduled to go into service at 7 degrees East in mid-July at which point it will be renamed EUTELSAT 7B. EUTELSAT 3A, will be relocated to 8 degrees West until it is deorbited later in 2014.

NewSat Secures Contract for Jabiru-2 Capacity

July 7, 2014 - NewSat has announced a new Jabiru-2 satellite capacity contract with a leading global satellite systems integrator. The new contract is for the supply of US\$11.7 million of Jabiru-2 satellite transmission capacity over Australia, Papua New Guinea, Timor Leste and the Solomon Islands. NewSat's contract has a base period of three years with a further two year option term, which if exercised, has a total contract value of US\$11.7 million. The customer contract is with an existing NewSat teleport customer who is a significant supplier to mining, energy, maritime and industrial sectors around the world. The Jabiru-2 satellite capacity will enable the customer to enhance its existing enterprise-grade video, voice and data services, and strategically expand its service offering across Australasia. Jabiru-2 is scheduled to launch in September 2014, with the customer contract to commence once the satellite has entered commercial service. For commercial reasons the customer details cannot be disclosed at this time and remain confidential.

Satellite Communication Signs on as a Thuraya Service Partner

July 7, 2014 - Thuraya Telecommunications Company announced its partnership with Satellite Communication SA, a leading provider of data communications and voice services in Europe. Headquartered in Switzerland, Satellite Communication customers across key markets such as government, relief, maritime and leisure (including climbers, adventurers and sailing enthusiasts), will now have access to Thuraya's portfolio of mobile satellite products and solutions.

iGT Increases Bandwidth and Throughput to Meet DoD and Intelligence Requirements

July 7, 2014 - iDirect Government Technologies, Inc. (iGT) announced the availability of iDX 3.2.3 software, which meets the military, intelligence and public safety communities' growing needs for increased bandwidth and higher throughputs. iDX 3.2.3 features Adaptive Time Division Multiple Access (ATDMA), which improves return channel performance and increases network availability under rain fade and satellite link degradation. The software enables customers to design networks for a typical case scenario instead of worst-case scenario, saving time, costs and complexity without the loss of performance. With ATDMA, customers can boost their network throughputs, increase network availability and reduce bandwidth and terminal costs or combine these benefits to support high-speed Communications on the Move (COTM) in maritime, terrestrial and airborne environments.

TeleYemen Expands Satellite Services with Intelsat to Launch First VSAT Network within Yemen

July 8, 2014 - Intelsat S.A. announced that Yemen International Telecommunications Co. (TeleYemen), the exclusive provider of international telecommunications for Yemen, is expanding its current agreement with Intelsat to provide additional support for its VSAT network within Yemen. Under the new, multi-year agreement, TeleYemen will expand its Ku-band capacity on Intelsat 15 at 85 degrees East to deliver VSAT services to corporate, banking and oil & gas companies, in addition to providing capacity to telecom operators in the country.

Hughes Partners with Tampa Microwave to Offer Portable ManPack Satellite Terminals

July 8, 2014 - Hughes Network Systems, LLC, has recently teamed with Tampa Microwave to embed their HX-based modem into the Tampa Microwave ManPack family of small tactical satellite terminals. The terminals range in size from 45cm to 1.3m and feature WGS and FIPS compliant Hughes HX technology that can support X, Ku- and Ka-band communications for both star and mesh type networks. The terminals' compact design and lightweight backpack facilitate one-person set-up, operation and transportation. This agreement allows Hughes to pair the ManPack terminals with embedded Hughes HX series modems to meet the needs of a broad domestic and international customer base through an international reseller agreement.

All Intellian Products Excel in Brazilian Approval System

July 9, 2014 - Intellian has increased its presence in the South American market with its new 3-axis v100GX antenna achieving ANATEL approval from the Brazilian Agency of Telecommunications and Petrobras homologation. This completes the full range of ANATEL approved Intellian VSAT communication antennas from 60cm to 2.4M available for the active Brazilian maritime industry and the many vessels operating in Brazilian waters. Petrobras procedures are even more complex than ANATEL homologation and showed the v100GX to be an outstanding performer. The result of this success is that Intellian will now appear on the Petrobras Master Vendor list and can supply antennas for all Petrobras units, not only in Brazil, but around the world. Intellian is now the only manufacturer capable of supplying fully tested and fully compliant antennas to the Petrobras specifications and ready for the future remote M&C implementations that Petrobras has planned in its VSAT network.

Globecomm Launches Worldwide MVNO Services

July 10, 2014 - Globecomm has launched worldwide MVNO services, available immediately. Globecomm will offer these services to business-to-business-focused (B2B) MVNOs, enterprises and government organizations. Globecomm will use its proven platform and trusted networks to provide these companies with new sources of revenue while reducing their costs and shortening time to market. Globecomm will handle all back-end operations through the company's existing infrastructure and Globecomm's MBOX platform. New and existing B2B focused MVNOs will be able to leverage Globecomm's carrier-grade solutions to create new revenue, reach new markets and build their customized services and offer mobile phone and data services. Globecomm's MVNO service can be used for B2B applications, as well as by enterprises and government organizations.

Iridium Completes Billing and Revenue Management System Consolidation to Support Iridium NEXT

July 10, 2014 - Iridium Communications and Oracle announced Iridium has completed implementation of the Oracle Communications Billing and Revenue Management solution. The fully convergent charging and billing system replaces multiple legacy systems and will enable Iridium to streamline billing processes, easily manage the entire revenue lifecycle, and provide a single invoice and a unified interface to its customers.

ABS & ArabSat Sign Agreement for Multi-Transponder Deal on ABS-3A at 3 Degrees West

July 15, 2014 - ABS and Arab Satellite Communication Organization (ARABSAT) announced that they have signed a strategic commercial agreement for a multi-transponder lifetime Ku-band payload on the new ABS-3A satellite planned for launch in late 2014/ early 2015. This Ku-band payload deal will provide ARABSAT with

additional growth opportunities to serve their customers over the Middle East and North Africa regions. The ABS-3A satellite will be one of the world's first all-electric propulsion satellites (a Boeing 702SP platform satellite) with nearly 8 kilowatts of EOL payload power and up to a total of 48 C and Ku-band transponders. It will be located at 3 degrees West and will offer expanded capacity connecting the Americas, Europe, the Middle East and Africa regions. Its wide C and Ku-band coverage will serve both sides of the Atlantic for trans-Atlantic as well as regional connectivity and services.

KNS Launches Another Powerful Antenna from the SuperTrack Series

July 15, 2014 - KNS, Inc., a Korea-based designer, manufacturer and integrator of marine communication systems, announced the launch of its C-Band 2.2m satellite antenna. This C-Band antenna has two variations: Z Series for users who want fast Internet access at sea and S Series to provide the ultimate in TV entertainment while offshore. The C-Band has been built for regional or global C-Band beams and is ideal for vessels with limited space for 2.4 or 3m antennas.

Liquid Telecom Steps up Resources on Eutelsat's Africa Coverage Satellites for Immediate and Fast Internet Connectivity

July 18, 2014 - Liquid Telecom is stepping up resources leased from Eutelsat Communications to meet increasing demand for IP connectivity from a broad portfolio of clients that include national parks, out of town offices and remote mining and exploration companies. Liquid Telecom and Eutelsat have extended their relationship to 2019 with a new multi-transponder contract for satellite capacity delivering premium coverage of Sub-Saharan Africa. The additional capacity is on the EUTELSAT 7B satellite that joined EUTELSAT 7A at 7 degrees East on July 16. Liquid Telecom has also transferred existing traffic at 7 degrees East onto EUTELSAT 7B to take advantage of the performance of its African footprint and has plans to ramp-up further capacity over the coming 12 months.

Hughes and Thales Complete Test of Rapidly Deployable LTE Mobile Network via Satellite

July 22, 2014 - Hughes Network Systems, LLC and Thales Defense & Security, Inc. have successfully tested a rapidly deployable Long-Term Evolution (LTE) mobile networking solution via satellite. The solution leverages the powerful combination of Hughes SPACEWAY[®] 3 and JUPITER[™] high-throughput technologies, connecting with the Thales B-14 system-on-wheels. This robust and private network solution can be deployed virtually anywhere, making it ideal for emergency response networks such as FirstNet, the nationwide, interoperable public safety broadband network. Hughes and Thales conducted situational testing operating on the 700 MHz public safety spectrum to validate the solution's performance and interoperability with public safety network requirements. Using readily available smartphones and vehicular modems, first responders are able to easily communicate and share video with each other and EOCs via this local deployable broadband network.

NBN Co Launches New Satellite Broadband Services

July 22, 2014 - NBN Co launched its new satellite support scheme, which will deliver broadband services to Australia's most remote premises. NBN Co's Satellite Support Scheme (NSS) will allow up to 9,000 premises access to a subsidized satellite broadband service until the NBN's Long Term Satellite Service (LTSS) is made available. The NSS is similar to the Australian Government's former Australian Broadband Guarantee (ABG) program and will subsidize approved wholesale satellite providers selling their services through retail service providers. Eligible end users for the scheme include residents, small businesses, Indigenous community organizations and not-for-profit organizations. They also include education, health and local government facilities.

RSCC Provides Broadband Access Services On Board the Research/Survey

July 23, 2014 - On 16 July 2014, a Russian Hydrometeorological Service vessel embarked on a journey to the Arctic Region. RSCC has installed a maritime VSAT on board to provide the usual communications services to the researchers who are out to obtain new data on the hydrometeorological and ice conditions in Arctic seas. RSCC, in partnership with OOO Isatel, a member of the Intersputnik Holding international group, have put satellite-supported broadband equipment on board the research/survey vessel Akademik Tryoshnikov, operated by Russian Hydrometeorological Service (Roshydromet). The deployed communications complex provides access for the crew and the Arctic expedition researchers to a state-of-the-art package of information & communications services when on high seas.

ARABSAT Selects GMV Satellite Monitoring and Control Products for its Entire Fleet of GEO Satellites

July 23, 2014 - GMV has been awarded a contract by ARABSAT to provide a complete Satellite Control Center (SCC) for its existing and upcoming fleet of satellites. ARABSAT has been using a heterogeneous SCC solution for the past ten years to operate its satellite fleet but has recently decided to establish a more direct and long

partnership with a specialized SCC vendor and move to a homogenous, flexible and robust system that enables seamless operations of various satellite platforms with an increased level of operational reliability. The agreement calls for procurement of a turnkey solution comprising of RTS (Real Time System based on GMV *hifly* product) and FDS (Flight Dynamics System based on GMV *focusgeo* product) along with all auxiliary and support applications that incorporate ARABSAT's existing fleet of six satellites with option to include two more satellites before the end of 2014. The agreement also includes provisions for addition of more satellites from different known platforms in the long term.

Divona Picks Eutelsat to Pursue its Development in Algeria

July 23, 2014 - Divona, the Algerian VSAT operator providing telecom services (Internet, voice and data) in Algeria and the Middle East, announces it has selected Eutelsat Communications to consolidate its network connectivity offer to mobile telecom operators and enterprises. Divona has signed a multi-year contract with Eutelsat for a 72 MHz transponder on the EUTELSAT 21B satellite that delivers optimum coverage of the regions where it concentrates its operations, notably Algeria and Southern Europe. This establishes Eutelsat as a key provider of satellite capacity to Divona in a market where it has built multiple partnerships with the leading telecom and broadcast players accelerating the deployment of digital infrastructure. This latest contract takes to nine the number of transponders leased by Eutelsat to Algerian clients.

SES Awarded Hosted Payload Solutions ID/IQ Contract

July 23, 2014 - SES Government Solutions (SES GS) is one of fourteen awardees granted a share of a contract worth in total a maximum of \$494,900,000 under the Hosted Payload Solutions (HoPS) Program. This indefinite-delivery/indefinite-quantity (ID/IQ) contract will provide a streamlined method for the U.S. Government to host government payloads on SES spacecraft. At a time when many government satellites programs have experienced schedule delays, cancellations and budgetary challenges, the use of commercially hosted payloads can maintain or accelerate program schedules and provide timely and affordable access to space. The U.S. Air Force broke ground with the Commercially Hosted Infrared Payload (CHRP) aboard the SES-2 spacecraft, which was launched on September 21, 2011. Missions suitable for hosted payloads include risk reduction activities, technology advancement missions, flight qualification missions and operational missions such as earth weather monitoring. The contract has a five-year ordering period starting July 10, 2014. All missions and studies under this contract are expected to be completed no later than January 31, 2029. Space and Missile Systems Center is the U.S. Government agency responsible for contracting the activity.

ABS Expands its Operations in Johannesburg, South Africa

July 24, 2014 - ABS has expanded its global presence in Johannesburg, South Africa and formed a new Sales liaison office to support its growing business in the Africa continent. This new office will house the sales and technical members of the Africa team, which will work alongside the regional Middle East office based in Dubai. ABS Africa will be responsible for business development, local sales liaison services and customer support throughout this region.

ND SATCOM Ka2Go - Terminal Receives Eutelsat Type Approval

July 24, 2014 - ND SatCom has received type approval for its Ka2Go -Terminal for Eutelsat Broadband Services. Eutelsat is one of the world's leading satellite operators delivering service into 150 countries via 37 satellites. Ka2Go - Terminal has been awarded to be the system with the most accurate pointing among of all type approved Ka -band auto-deploy systems so far. The Ka2Go - Terminal is an optimal solution to meet the growing need for new means of content gathering and transmission using Ka-band technology. It is a lightweight plug & play terminal which is fully KA-SAT compatible, therefore making it perfect in combination with existing Ka-band service offerings on the market. Terminal integrates a KA-SAT modem, IP router and antenna controller in one.

Eutelsat America Corp. Eligible to Provide Hosted Payload Services to US Government

July 25, 2014 - Eutelsat America Corp. has been awarded a contract by the US Air Force to support the deployment of future US Government payloads (hosted payloads) on its satellites. Eutelsat America Corp. joins a limited number of prequalified companies eligible to provide Hosted Payload Services to the US Government for a five-year ordering period. Eutelsat will compete for future orders up to a maximum combined value of US\$494,900,000 under this firm-fixed-price, indefinite-delivery/indefinite-quantity (IDIQ) contract managed as part of the US Air Force Space and Missile Systems Center's Hosted Payload Solutions (HoPS) program. In addition to the space and ground systems, the HoPS mission will also include related on-orbit support for data transfer from a hosted payload to government end-users. The purpose of the multiple awarded HoPS IDIQ contract is to provide a rapid and flexible way for the US government to place government payloads on commercial satellites.

SES Receives Approval from GSA to Sell O3b Services

July 28, 2014 - Global satellite solutions provider SES Government Solutions (SES GS) received General Services Administration (GSA) approval to offer O3b services on their GSA Schedule as of July 8, 2014. This allows SES GS to be the first distribution partner to offer O3b capability directly to the U.S. Government. U.S. Government agencies can now purchase O3b bandwidth, whole beams, gateway IP connectivity, modems, and ground and maritime terminals using the Special Item Numbers (SINs) 132-8, 132-54 and 132-55. Additionally, O3b products and capacity will be available for Future COMSATCOM Services Acquisition (FCSA), which is a joint initiative by the U.S. General Services Administration (GSA) and the Defense Information Systems Agency (DISA). This is the largest, most commonly used SATCOM acquisition vehicle in the U.S. Government and it provides direct access to products and services for more than 5,000 certified industry players. Vendors undergo a strict application process, which includes negotiations on fair and reasonable pricing.

Intelsat General Selected to Enable U.S. Air Force Deployment of Hosted Payload Missions

July 28, 2014 - Intelsat General Corp. has been selected by the U.S. Air Force to participate in a half-billion-dollar, 15-year program to place government payloads aboard commercial satellites. Under the Air Force's Hosted Payload Solutions program, known as HoPS, Intelsat General and 13 other U.S. space companies will have an opportunity to bid on task orders designed to streamline the process of getting government capabilities into orbit. This program reinforces industry's role in supporting the U.S. government's leadership in space technology. The overall indefinite-delivery, indefinite quantity (IDIQ) contract has a value of \$495 million and runs through 2029. The HoPS IDIQ contract includes studies on when and where hosted payloads would best suit the needs of the U.S. government; the full procurement and launch of hosted payload hardware aboard commercial satellites; and the ongoing support of the ground and space segment.

LiveCom Selects iDirect to Enable Global Expansion Efforts of Enterprise and Government Customers

July 28, 2014 - iDirect Asia Pte Ltd announced that LiveCom Limited, a Hong Kong based ISP, has selected Evolution as the platform to help enterprise and government customers expand their reach beyond the Asia-Pacific market. LiveCom offers satellite based-services such as VoIP, videoconferencing, streaming media and data backup to customers across a broad array of markets including construction, energy, mining, IT consulting and government. Seeing an increasing need for customers to expand services beyond the Asian market, LiveCom knew it needed a satellite platform that would provide the immediacy for market expansion, along with the same level of quality and service. LiveCom will be using a mix of different iDirect remotes, each tailored to the market-specific demands of their customers across different verticals.

ViaSat Gains High-rate Modem and Design Technologies with Acquisition of Assets of Gray Labs

July 28, 2014 - ViaSat has expanded its high-speed satellite data communication technology base with the acquisition of a high-rate modem product line and custom spacecraft technologies for earth observation from Gray Labs. Gray Labs has been at the leading edge of this market for several decades and the technology continues to provide high performance in ISR and other applications. ViaSat will continue to support Gray Labs products and customers with state-of-the-art design from its Duluth, Georgia campus. The former staff of Gray Labs has relocated to ViaSat facilities, and Dr. Jim Gray, former Gray Labs president, has assumed a senior consulting position at ViaSat where he will help expand the capabilities of satellite-to-earth communications for ISR.

NBN Co Appoints IPSTAR as Wholesaler for Australian Internet Service Providers

July 29, 2014 - Thaicom announced that the NBN Co has selected its wholly owned subsidiary, IPSTAR Australia (IPA), for a new initiative to boost the number of broadband connections for Australians who cannot access an existing commercial broadband service. Under the NBN Co Satellite Support (NSS) Scheme, IPA is appointed an official wholesaler and will deliver the scheme together with participating Internet Service Providers (ISPs) in Australia. According to NBN Co, the NSS Scheme will connect up to 9,000 additional premises in remote and regional mainland Australia and Tasmania, until NBN Co's Long Term Satellite Service (LTSS) will be launched in late 2015. The NSS is exclusively available for users who are unable to access a commercial broadband service.

Globecomm Maritime Provides Critical VSAT Connectivity for Malaysia's PBJV Group

July 29, 2014 - Globecomm Maritime has been awarded a contract to provide VSAT connectivity to PBJV Group's barge Kota Laksamana 101. Globecomm will provide Ku-Band VSAT connectivity with L-band back-up to the specialist vessel during its deployment in waters off Bintulu. The barge, which accommodates up to 300 personnel, was recently chartered to Petronas, a fully integrated energy company based in Malaysia. Under the terms of the deal, PBJV is required to provide a dedicated 512kbps up and down link to Petronas staff working on board the vessel.

Boeing Resells Inmarsat-5 Satellite Bandwidth to US Government

July 29, 2014 - In a first-of-its-kind arrangement for the company, Boeing is providing a U.S. government customer with military Ka-band satellite communications service from a commercial satellite. Boeing is working with ViaSat to provide an integrated satellite service to the U.S. Government customer. The customer retains the rights to use the service on Inmarsat 5 through Sept. 30, 2015. This satellite, which entered service earlier this year, is the first of four Inmarsat-5 spacecraft being built by Boeing and is a part of Inmarsat's Global Xpress[®] system, the world's first globally available high-speed mobile broadband service for government and commercial users. Boeing is exclusively authorized to resell Inmarsat capacity to U.S. government organizations to help address increasing demand for military communications bandwidth.

ORBCOMM Expands Global Market Territory and Gateway Infrastructure

July 29, 2014 - ORBCOMM Inc. announced that Mahd Telecom, ORBCOMM's Muscat, Oman-based national service provider partner for Oman and other Gulf Cooperation Council (GCC) countries, has been granted regulatory approval to provide ORBCOMM services in Oman. Issuance of the service authorization allows for installation of a new ORBCOMM Gateway Earth Station (GES) in Oman and completion of the radio spectrum licensing process. In addition, ORBCOMM has signed an agreement to purchase the ORBCOMM GES located near Rio de Janeiro, Brazil, from its local service partner, completing ORBCOMM's ownership consolidation of all Western Hemisphere GES facilities.

SES Unveils New Satellite Operations Center

July 30, 2014 - SES announced it is now controlling nearly half of its growing fleet from a new satellite operations center (SOC) at its commercial sales and satellite engineering office in Princeton, New Jersey. A team of highly-skilled satellite controllers provides 24/7 monitoring and management of 23 SES satellites, as they deliver services ranging from high quality broadcast television channels to high-speed broadband to millions of people on land, in the air, and at sea throughout North America and around the world. The remainder of the current SES global fleet of more than 50 spacecraft is managed by controllers stationed at SES's global headquarters in Luxembourg. Both satellite operations centers are fully integrated, enabling each facility and control team to provide real-time services delivery and backup support across the SES fleet.

Wideband Small Tactical Terminal Certified by NSA

July 31, 2014 - The Wideband Small Tactical Terminal (STT) (KOR-24A), co-developed by ViaSat and Harris Corporation has been certified by NSA and is ready for delivery to U.S. and international military customers. The two-channel KOR-24A is being delivered with a Link 16 channel together with the ability to simultaneously use the wideband UHF Soldier Radio Waveform (SRW) or Adaptive Networking Wideband Waveform (ANW2). Integration with multiple platforms is in progress and nearly 100 terminals are already on order. Along with the new software-defined, wideband waveforms, the new STT includes narrowband VHF/UHF SINCGARS, HAVE QUICK, VULOS, and HPW, as well as Link 16. The enhanced STT is also backward compatible with approximately 150 previous-version STTs already in operation on a number of U.S. government and international airborne, surface, and ground-based platforms.

BROADCASTING

SapphireBlu Series GaN Technology Based HPAs Empower 4K Ultra HDTV World Cup Transmissions

July 11, 2014 - Advantech Wireless' SapphireBlu Series of UltraLinear GaN technology based High Power Amplifiers have empowered the Ultra HDTV transmissions of the most viewed sporting event of the year. Due to the combination of Advantech Wireless Ku-Band UltraLinear[™] GaN based HPAs with Advantech Wireless 13m A-Line Antenna in a major DTH Uplink system in LATAM, millions of viewers in Latin America and Brazil have been able to follow the transmissions of the biggest sport tournament in Brazil.

EBU Uses NovelSat Gear for 4K Ultra HD Broadcast of Live FIFA World Cup Action

July 14, 2014 - EBU treated 2014 FIFA World Cup Brazil fans to 4K resolution – a new, breathtaking way to enjoy televised sports. Using NovelSat satellite modulators, The EBU broadcast 3 full live World Cup games from Brazil in 4K Ultra HD quality, including the Final yesterday between Germany and Argentina. These 4K satellite broadcasts set a new standard for internationally televised football both in quality and cost effectiveness. Worldwide, the growing demand for 4K Ultra HD TV is driven by live sporting events where increased clarity and frame rate create a smoother, more realistic experience and instant replay with game changing sharpness. While 4K is a pleasure to view, the increased pixel count (3480x2160 vs. 1920 x 1080 for 1080p) can tax satellite

bandwidth. That is one of the key reasons that The EBU chose to use NovelSat equipment, with the industry's highest spectral efficiency, for the World Cup 4K satellite broadcasts.

MCS TV and Newslux Pick Eutelsat to Drive TV Channel Expansion in Southeast Asia

July 16, 2014 - MCS TV and Newslux have selected the EUTELSAT 70B satellite operated by Eutelsat Communications to support the expansion into Southeast Asia of two flagship channels, i24News and MCS International. Both channels can now benefit from the exceptional features of the EUTELSAT 70B satellite that gives direct access from Europe to the economically booming Southeast Asian market. They have joined a digital platform uplinked from Italy and are broadcast across Southeast Asia to operators of cable and ADSL networks as well as homes equipped for direct reception. Launched in 2013, i24News is an international 24-hour news and current affairs channel based in Tel Aviv and now available free-to-air via EUTELSAT 70B in French and English-language versions. MCS International is an international sports channel already available in more than 50 countries, with a strong focus on football, handball, volleyball, fighting sports, tennis and extreme sports.

Videocon d2h Chooses Broadcom to Deliver HD Satellite Service to India Pay-TV Market

July 21, 2014 - Broadcom Corporation announced that Videocon d2h, India's direct-to-home (DTH) satellite service provider, has selected Broadcom's highly integrated satellite set-top box (STB) system-on-a-chip (SoC) device to power their latest high definition (HD) universal serial bus (USB) digital video recorder (DVR). Broadcom's BCM7358 HD satellite STB SoC enables Videocon d2h to accelerate deployment of HD satellite STBs to subscribers throughout the region while reducing design complexity, size and overall system cost. Designed to address consumer demand for pay-TV programming, Videocon d2h's HD USB DVR is capable of recording content on a USB storage device and offers enhanced digital picture quality with optimum 1080p resolution. The Videocon d2h HD USB DVR is powered by Broadcom's BCM7358 single-channel 1080p HD advanced video coding (AVC) satellite receiver chip, featuring a high performance CPU and graphics engine, Digital Living Network Alliance (DLNA[®]) connectivity support and advanced security functionality.

SES Launches New Digital TV Platform for West Africa

July 23, 2014 - SES in cooperation with service provider Computer Warehouse Group announced the launch of a new digital TV platform for West Africa on SES's ASTRA 2F satellite at 28.2 degrees East. This independent and neutral TV platform in Nigeria will be the country's first free-to-air (FTA) DTH digital TV platform and provide the opportunity for broadcasters to reach millions of satellite homes in West Africa which are pointing their dishes to 28.2 degrees East. Besides providing additional growth opportunities for local and international broadcasters, the platform could be used to quicken the pace of digital migration. The platform provides end-to-end contribution, ground and space services to local, regional, national and international TV broadcasters across West Africa. SES will be providing the space segment and specific ground services, while CWG will be managing the teleport services as an SES partner teleport operator, providing high operational standards. The service will start in September 2014.

Broadcom HEVC Technology Powers India's First Ultra HD Set-top Box Deployment from Tata Sky and Technicolor

July 28, 2014 - Broadcom Corporation announced that its BCM7252 high-efficiency video codec (HEVC) H.265 system-on-chip (SoC) will power Tata Sky's first generation Ultra HD set-top boxes (STBs). Tata Sky, a leading Direct-to-Home (DTH) provider in India, and Technicolor, a worldwide technology leader in the media and entertainment sector, have teamed to design and deploy the region's first 4K STBs, planned for mass deployment throughout India in 2015. Broadcom's industry-leading HEVC-enabled chipsets provide the compression and higher throughput required by operators and OEMs to rapidly introduce Ultra HD subscriber hardware and content. Ultra HD deployments hinge on the advanced delivery mechanisms for over-the-air broadcasts, pay TV and over-the-top (OTT) services. Unlike HD, which typically relies on MPEG-4 to compress content, Ultra HD craves a higher-efficiency video codec to support transmission. The Broadcom[®] BCM7252 Ultra HD SoC dramatically improves coding efficiency and reduces video bandwidth usage by 50 percent.

MultiChoice Africa and Eutelsat Strike New Long-term Multi-transponder Agreement

July 30, 2014 - Eutelsat Communications and MultiChoice Africa, one of Africa's most prominent media companies, have inked a far-reaching agreement that will ensure the continuing expansion of the DStv pay-TV platform over the coming 15 years. The multi-transponder contract also further anchors Eutelsat's neighbourhood of high-power satellites at 36 degrees East as the point of reference for broadcasting in sub-Saharan Africa. To live up to its brand promise of delivering a television experience marked by quality and choice, MultiChoice Africa will take advantage of the entire payload of 15 Ku-band transponders connected to the African service area of the

EUTELSAT 36C satellite that will be launched next year. In advance of the launch, MultiChoice has also booked two transponders on the EUTELSAT 36A broadcast satellite that provides reach of the 38 countries in sub-Saharan Africa served by the DStv platform.

LAUNCH / SPACE

Hispasat Contracts SSL to Build Hispasat 1F

July 1, 2014 - Spanish satellite telecommunications operator Hispasat has chosen Space Systems/Loral (SSL) to produce the Hispasat 1F, to be located at orbital position 30 degrees West. The Hispasat 1F will serve as a replacement for the Hispasat 1D and will give the Group additional Ku band capacity, in the Andean region and in Brazil. Likewise, the Hispasat 1F will expand the Group's transatlantic capacity in Europe-America and America-Europe connectivity. Ka band capacity with European coverage will furthermore be incorporated, in order to enable Hispasat to continue expanding its broadband service offer in the region. The Hispasat 1F is expected to have a useful life of 15 years. The satellite will be built on the SSL 1300 satellite platform.

Inmarsat Selects SpaceX for Future Satellite Launches

July 2, 2014 - Inmarsat has selected SpaceX to provide launch services for its S-band satellite and up to two further Inmarsat missions. Under the terms of its agreement with SpaceX, Inmarsat expects to use the Falcon Heavy launch vehicle, but will retain the possibility of using a Falcon 9 as an alternative, providing further launch flexibility. Inmarsat and SpaceX have agreed terms for a third launch vehicle opportunity that can be used for other future missions, including potentially for the launch of an Inmarsat-6 generation satellite. The Inmarsat-6 satellites have not yet been designed or ordered and a first launch is targeted only towards the end of the decade.

NASA and Boeing Sign Space Launch System Contract

July 2, 2014 - Boeing has finalized a contract with NASA to develop the core stage of the Space Launch System (SLS), the most powerful rocket ever built and destined to propel America's return to human exploration of deep space. The \$2.8 billion contract validates Boeing's earlier selection as the prime contractor on the SLS core stage, including the avionics, under an undefinitized contract authorization. In addition, Boeing has been tasked to study the SLS Exploration Upper Stage, which will further expand mission range and payload capabilities. The agreement comes as NASA and the Boeing team complete the Critical Design Review (CDR) on the core stage – the last major review before full production begins.

Orbital-built OCO-2 Satellite Successfully Launched

July 2, 2014 - Orbital Sciences Corporation announced the Orbiting Carbon Observatory-2 (OCO-2) satellite, built by the company for NASA's Jet Propulsion Laboratory (JPL) in Pasadena, CA, was successfully launched into orbit aboard a Delta II rocket. Lift-off from Vandenberg Air Force Base, CA., the satellite was successfully deployed into its targeted 430-mile (690-kilometer) altitude orbit approximately 56 minutes after launch. JPL and Orbital engineers have begun a comprehensive series of in-orbit tests to verify all spacecraft systems are functioning properly. Orbital will manage day-to-day in-orbit operations of the satellite from the company's Mission Operations Center at its Dulles, VA campus for the duration of the program. JPL expects OCO-2 science operations to begin later in 2014.

RUAG Space Wins Major Ariane 5 Payload Fairing Contract

July 3, 2014 - RUAG Space has won a major payload fairing contract from Arianespace. The contract covers the provision of Ariane 5 payload fairings through 2019, and is worth more than 100 million Swiss francs. The payload fairing, mounted on the nose of the launch vehicle, protects satellites on the launch pad and during the initial trajectory through the Earth's atmosphere. RUAG Space is the world's leading supplier of payload fairings made of composite materials. In addition to Ariane 5, Europe's small launcher, Vega, and the American launcher, Atlas V-500, also use fairings supplied by RUAG Space.

Iridium and SpaceX Complete Dispenser Qualification Tests

July 3, 2014 - Iridium Communications and SpaceX announced the successful completion of dispenser qualification testing for the Iridium NEXT constellation. The dispenser is the mission-unique assembly that holds the satellites during launch and manages the perfectly timed separation of each satellite from the rocket, placing each of the satellites into its proper orbit. The testing program, a key milestone in the Iridium NEXT constellation build, included four types of testing on the satellite dispenser: fit check, separation and shock testing, a modal survey, and static loads testing. Overall the tests ensure launch shock environment, mechanical form, fit and

function, separation dynamics, fundamental frequency and structural integrity. SpaceX is charged with delivering the majority of satellites for the Iridium NEXT constellation into their low Earth orbit. At each launch, a SpaceX Falcon 9 rocket will carry 10 satellites. In total, SpaceX will launch 70 satellites for the Iridium NEXT constellation over a planned period of two years. Iridium is SpaceX's largest commercial customer, and, with an investment of \$453.1 million, the Iridium deal represents the largest single commercial space launch contract in history.

European Project HIPPO Now Under Way

July 7, 2014 - Thales Alenia Space announced the launching of the new European project HIPPO (High-Power Photonics for Satellite Laser Communications and On-Board Optical Processing), entailing the development of reliable and robust high-power photonic components for future satellite payloads. Co-funded by the European Union, this R&D project is being conducted by prime contractor Gooch & Housego, in partnership with Thales Alenia Space, III-V lab, Constelex and Fiberware. The HIPPO project involves the design and development of a new family of high-power photonic components robust to space environment. They will be used for spaceborne telecommunications, to provide laser optical links for both inter-satellite and ground-satellite connections. These optical technologies will also be incorporated in telecom payloads to handle various processing duties, including optical frequency conversion, routing, optical channel processing, etc. In this three-year project, Thales Alenia Space is in charge of specifying and defining the application framework. High-power optical components are one of the keys to the development of photonic payloads. By developing design and manufacturing expertise in this field, Europe will enhance its independence.

Boeing to Build Intelsat 35e Epic^{NG} Satellite

July 8, 2014 - Boeing will build the Intelsat 35e Epic Next Generation satellite for Intelsat. This marks Intelsat's ninth order for a satellite based on Boeing's 702MP (medium power) platform. The Intelsat Epic^{NG} satellites are being assembled on the Boeing 702MP platform, which features the same high-performance capabilities as the Boeing 702HP (high power) model, but with a substantially updated satellite bus structure and simplified propulsion system. In addition, the 702MP is compatible with the Atlas, Ariane, Sea Launch, Falcon and Proton launch vehicles.

Angara, Russia's Next Generation Launch Vehicle, Successfully Launched

July 9, 2014 - The Angara-1.2ML (Maiden Launch) integrated launch vehicle (ILV) was successfully launched by the Russian Ministry of Defense from the State Testing Cosmodrome (Plesetsk Cosmodrome) in the Archangelsk Region of Northern Russia. The light-lift Angara-1.2ML with a mock payload on board lifted off from the Angara multi-purpose launch pad. The ILV mission proceeded over the Russian territory along a ballistic trajectory in accordance with the planned timeline. Following the liftoff and the subsequent separation of Stage 1, the payload fairing was jettisoned during the Stage 2 powered flight. Stage 1 and the fairing were released into a planned targeted area in the southern part of the Barents Sea. After 21 minutes and 28 seconds, Stage 2 and the firmly attached mass/dimensional payload simulator reached the planned targeted area of the Kura Range on the Kamchatka peninsula, 5,700 km from the launch site.

Second Batch of Four O3b Satellites Successfully Launched

July 10, 2014 - The second four satellites in the O3b medium Earth orbit (MEO) constellation, operated by O3b Networks, have been successfully launched by Arianespace from French Guiana using a Soyuz rocket. The first four satellites have been orbiting for a year and they are offering hugely successful services - confirming the high-throughput and low latency of the O3b promise. Positioned at an altitude of 8,063 kilometers, four times closer to the earth than geostationary satellites, these Ka-band satellites will offer high speed, low cost, low-latency Internet and telecommunications services in emerging markets. O3b Networks will supply trunking and mobile backhaul connectivity to telecom operators and service providers at speeds comparable to those offered by fiber-optic networks.

Orbital Successfully Launches Antares Rocket Carrying Cygnus Spacecraft on Cargo Resupply Mission to International Space Station

July 13, 2014 - Orbital Sciences Corporation successfully launched its Antares medium-class rocket carrying a Cygnus cargo logistics spacecraft, beginning the company's second operational cargo resupply mission to the International Space Station (ISS). Cygnus will deliver vital equipment, supplies and scientific experiments to the ISS as part of its \$1.9 billion Commercial Resupply Services (CRS) contract with NASA. Under the CRS contract with NASA, Orbital will use Antares and Cygnus to deliver approximately 44,000 pounds (20,000 kilograms) of cargo to the ISS over eight missions through 2016. For these missions, NASA will manifest a variety of essential

items based on ISS program needs, including food, clothing, crew supplies, spare parts and equipment, and scientific experiments.

SpaceX Launches ORBCOMM's First Six OG2 Satellites

July 14, 2014 - ORBCOMM Inc. announced that it has successfully launched six next generation OG2 satellites aboard a SpaceX Falcon 9 rocket from Cape Canaveral Air Force Station, Florida. The OG2 satellites were successfully separated from the Falcon 9 launch vehicle into the proper insertion orbit. ORBCOMM's OG2 satellites are more advanced than its current OG1 satellites and will provide existing customers with significant enhancements, such as faster message delivery, larger message sizes and better coverage at higher latitudes, while significantly increasing network capacity. In addition, the OG2 satellites are equipped with an Automatic Identification System (AIS) payload to receive and report transmissions from AIS-equipped vessels for ship tracking and other maritime navigational and safety efforts, increasing asset visibility and the probability of detection for ORBCOMM's AIS customers. ORBCOMM anticipates launching the remaining eleven OG2 satellites and enhanced OG2 services as early as the end of the fourth quarter of 2014 to complete its next generation constellation.

Aniara Selects Dauria Aerospace to Design and Manufacture Two Small Geostationary Ku-band Satellites

July 15, 2014 - Dauria Aerospace has been tapped by India-based satellite communication services provider Aniara to design and build two new generation small Ku-band geostationary satellites. The state-of-the-art geostationary satellites are specifically being developed to serve small and mid-sized markets in Asia, Middle East and Africa (AMEA), which are currently not being addressed or are otherwise underserved by larger and more expensive satellite networks. Aniara, which is expanding its footprint in the global and regional markets, has selected Dauria's small satellite platform because of its high-performance, low-cost, and streamlined construction schedule advantages. The satellites will each weigh less than one ton and carry up to 16 Ku-band transponders. Spacecraft are expected to be in operation by late 2017. The small satellite platform is being designed in collaboration with Spanish technology company Elecnor Deimos and other leading manufacturers and suppliers. The platform will make use of flight-proven electric propulsion and several innovative technologies in order to achieve optimal design, high performance, lower cost and longer operating life than any other satellite in its category.

Boeing to Design XS-1 Experimental Spaceplane

July 15, 2014 - Boeing plans to design a reusable launch vehicle for the Defense Advanced Research Projects Agency (DARPA) in support of the U.S. government's efforts to reduce satellite launch costs. DARPA's XS-1 Experimental Spaceplane is conceived as a reusable, unmanned booster with costs, operation and reliability similar to modern aircraft. Under the \$4 million preliminary design contract, Boeing plans to work on a reusable first stage launch vehicle capable of carrying and deploying an upper stage to launch small satellite payloads of 3,000 to 5,000 pounds (1,361 kg to 2,268 kg) into low-Earth orbit. DARPA plans to hold a Phase II competition next year for the follow-on production order to build the vehicle and conduct demonstration flights.

Sierra Nevada Establishes Contact with All Six On-Orbit ORBCOMM Generation 2 Satellites

July 16, 2014 - Sierra Nevada Corporation (SNC) has commenced the on-orbit checkout phase for six ORBCOMM Generation 2 (OG2) satellites, establishing communication with each satellite as planned. The satellites, which will replenish the current first generation ORBCOMM constellation, were launched on July 14, 2014 via a dedicated SpaceX Falcon 9 rocket at Cape Canaveral Air Force Station, Florida. SNC is the prime contractor and spacecraft bus manufacturer for this upgraded communication constellation leading all development and integration efforts from its Louisville, Colorado facility. The payload is provided to SNC by Boeing Space and Intelligence Systems. In addition to managing the development and test of the satellite constellation, SNC also manages the early on-orbit checkout from its Louisville Satellite Operations Center in collaboration with the ORBCOMM operations team at the ORBCOMM Network Control Center (NCC) in Sterling, Virginia. This low-Earth orbit constellation is comprised of a total of 17 satellites, all derived from SNC's SN-100 bus. The remaining 11 satellites in the constellation are in final integration at SNC's facility in Louisville and are on track to launch as early as the end of the fourth quarter of 2014.

SES Contracts Airbus Defence and Space to Manufacture SES-12 Satellite for launch in 2017

July 17, 2014 - SES has selected Airbus Defence and Space to build a new hybrid communications satellite, SES-12, to serve the fast growing DTH, Data, Mobility and Government markets in Asia. The new satellite will expand SES's capabilities to provide direct-to-home (DTH) broadcasting, VSAT, Mobility and High Throughput Satellite (HTS) data connectivity services in the Asia-Pacific region, including rapidly growing markets such as

India and Indonesia. The spacecraft will be positioned at the well-established SES orbital slot of 95 degrees East, providing incremental as well as replacement capacity with excellent view angles across the Asia-Pacific region. SES-12 will replace SES's existing NSS-6 satellite and will be co-located with SES-8. Today, SES serves close to 20 million DTH households in India and Indochina from this orbital slot. SES-12 will be built by Airbus Defence and Space based on the highly reliable Eurostar E3000 platform. The satellite is designed to operate for 15 years, with a payload comprised of 68 high-power physical Ku-band transponders and 8 physical Ka-band transponders. The spacecraft will be equipped with an electric plasma propulsion system for orbit raising and on-orbit manoeuvres. The payload of the hybrid SES-12 satellite consists of two distinct but complementary missions: first, traditional wide beam coverage, and second, a high-powered Ku-band multi spot beam payload (HTS).

Arianespace to Launch Sentinel-1B Observation Satellite

July 17, 2014 - The European Space Agency (ESA) and Arianespace announced that they have signed a launch contract for the second radar satellite in the Sentinel-1 mission, Sentinel-1B, part of Copernicus, a joint European Union and European Space Agency (ESA) environmental monitoring program. The launch is scheduled on a Soyuz rocket in 2016 from the Guiana Space Center, Europe's Spaceport in French Guiana. Sentinel-1B is a C-band radar observation satellite, using SAR (synthetic aperture radar) technology. It will be placed in a Sun-synchronous orbit at an altitude of about 690 km. This satellite is identical to the Sentinel-1A, successfully launched on April 3, 2014, also by a Soyuz rocket from the Guiana Space Center. As part of the Copernicus program, Sentinel-1B will round out the initial capacity offered by Sentinel-1A to offer a comprehensive response to the need for environmental and security monitoring via spaceborne radar systems. Sentinel-1B will be designed and built by Thales Alenia Space Italy, and will weigh about 2,300 kg at launch.

SSL Selected to Study Asteroid Retrieval for NASA

July 18, 2014 - Space Systems/Loral (SSL) announced that it was one of the companies selected by NASA to study system concepts and key technologies for NASA's Asteroid Redirect Mission, which is expected to be a key part of the agency's path to sending humans to Mars. SSL will conduct two studies; one that examines using MDA robotic technology for asteroid capture, and one that examines adapting commercial spacecraft for the Asteroid Redirect Vehicle. SSL and MDA will work together with Honeybee Robotics Spacecraft Mechanisms Corporation on the "Autonomous Boulder Liberation Equipment" study. The companies will collaborate to demonstrate the robotic placement and handling of excavation and capture tools to remove a boulder from the surface of an asteroid.

SSL Awarded Contract for Innovative, Affordable Access to Space

July 21, 2014 - Space Systems/Loral was selected by the U.S. Defense Advanced Research Projects Agency (DARPA) to integrate the flight hardware for a new capability designed to carry small science and technology missions to space on its geostationary (GEO) satellite platform. SSL plans to support completing the design and integration of the first Payload Orbital Delivery system (PODs) accommodation on the SSL 1300 platform - which would enable affordable delivery of small free-flying spacecraft beyond Low Earth Orbit (LEO) for future servicing, operational, science and technology space missions.

OmniEarth Announces Spaceflight as Rideshare Launch Services Partner

July 21, 2014 - OmniEarth LLC has signed a memorandum of understanding (MOU) with Spaceflight Inc. for rideshare launch services related to its planned constellation of up to 18 satellites. Under the agreement, Spaceflight Inc. will identify launch opportunities and provide associated pre-launch support to OmniEarth. Spaceflight has strong partnerships with prominent launch vehicle providers, such as SpaceX, Orbital Sciences, Roscosmos, and Virgin Galactic, and is well-suited to facilitate launch accommodations for OmniEarth. Spaceflight has launched 47 satellites over a year and a half period and has more than 100 in backlog. Spaceflight's next launch is scheduled for mid-July 2014 onboard Orbital Sciences' Cygnus Orb-2 mission.

Thales Alenia Space to Build Telkom-3S Satellite for Indonesia

July 22, 2014 - Thales Alenia Space has signed a contract with PT. Telekomunikasi Indonesia Tbk (Telkom), to build a new telecommunications satellite. Telkom-3S will increase the operator's C-band capacity from its orbital position at 118 degrees East, and will also offer high-definition television (HDTV) and remote GSM/Internet services in Ku-band. Thales Alenia Space is program prime contractor, with responsibility for the design, construction, testing and in-orbit delivery of the satellite. It is also in charge of the launch and early orbital positioning phase (LEOP) and in-orbit tests (IOT). In addition, Thales Alenia Space will supply control center components and will train a team of engineers on site. Built on Thales Alenia Space's new-generation Spacebus 4000B2 platform, Telkom-3S will be fitted with 24 C-band transponders, 8 extended C-band transponders, and 10

Ku-band transponders. The C-band payload will cover Indonesia and Southeast Asia, while the extended C-band payload will cover both Indonesia and part of Malaysia. The Ku-band payload will specifically cover Indonesia. The satellite will weigh about 3,500 kg at launch and offers payload power of 6.3 kW. It will be probably launched by Arianespace as preferred bidder end of 2016 for a 15-year expected lifetime.

SSL Selected for Study on Accommodating a NASA Hosted Payload

July 28, 2014 - Space Systems/Loral announced that it was selected by the Department of the Air Force Headquarters Space and Missile Systems Center as one of three companies to study ways to accommodate an instrument to monitor air pollutants over North America on a commercial satellite. The Tropospheric Emissions: Monitoring of Pollution (TEMPO) Mission Study is the second Delivery Order to be awarded under the U.S. Air Force Hosted Payload Solutions (HoPS) contract. Earlier this month SSL announced that it was one of the companies that was eligible for U.S. Air Force contracts related to hosting government payloads on commercial satellites through a new streamlined contracting vehicle known as the HoPS IDIQ. With its track record as a leader in manufacturing geostationary satellites, including 16 GEO observatories, and with 74 commercial satellites currently on orbit, SSL is particularly well-positioned to help government agencies find rides for instruments, sensors and other small missions on commercial spacecraft.

Arianespace Launches ATV Georges Lemaître

July 29, 2014 - Ariane 5 marked a key operational milestone and set a new record on its 60th consecutive "mission accomplished," successfully orbiting the Automated Transfer Vehicle (ATV) Georges Lemaître and once again demonstrating Arianespace's ability to serve the European space sector. Arianespace's heavy-lift workhorse delivered a record payload performance in lofting this fifth and final ATV spacecraft for the European Space Agency (ESA), which resupplies the International Space Station (ISS). With a mass of more than 20 metric tons at liftoff from the Spaceport in French Guiana, ATV Georges Lemaître is the heaviest payload ever launched by Europe.

NEC and the Mexican Space Agency Collaborate in Satellite Development

July 29, 2014 - NEC Corporation and the Mexican Space Agency (AEM) have signed a Memorandum of Understanding for the development of advanced satellites. The document was signed by the Managing Director of the AEM (Agencia Espacial Mexicana), Dr. Francisco Javier Mendieta Jimenez and by Dr. Nobuhiro Endo, President of NEC Corporation, aiming to strengthen the Earth Observation (EO) and climate change monitoring, global navigation and global positioning systems (GPS) and applications, as well as the satellite communications, control systems and terrestrial networks of Mexico's space industry.

Eutelsat Ties up Procurement and Launch Contracts for EUTELSAT 172B Asia-Pacific Satellite

July 31, 2014 - Eutelsat Communications has sealed procurement and launch contracts with Airbus Defence and Space and Arianespace for the EUTELSAT 172B satellite. As an early follow-on program to EUTELSAT 172A, the new triple mission satellite will provide continuity and expansion capacity at Eutelsat's 172 degrees East orbital position that is a prime gateway for services in the Asia Pacific region. The 3.5 ton satellite to be manufactured by Airbus Defence and Space will be launched by an Ariane 5 rocket in first half 2017 and will use electric propulsion for initial in-orbit raising and all station-keeping manoeuvres. The reduction in mass will enable this powerful (13 kW) satellite to be launched with the Ariane 5 lower position, offering lower launch costs. In-orbit raising is expected to take approximately four months. EUTELSAT 172B will host regular C-band and Ku-band payloads. It will also host the Pacific Ocean Region's first Ku-band High Throughput payload which Panasonic Avionics Corporation has already selected as its key growth platform for in-flight broadband and live TV for commercial airlines on trans-Pacific and Asian routes.

Arianespace to Launch All-electric Eutelsat 172B Satellite in 2017

July 31, 2014 - Eutelsat has chosen Arianespace to launch its 172B satellite. Eutelsat 172B will be equipped with a multibeam payload covering the Asia-Pacific region, designed specially to support in-flight connectivity services aboard airliners. The Eutelsat 172B satellite will be launched by an Ariane 5 in 2017 from the Guiana Space Center in Kourou, French Guiana. Eutelsat 172B will carry three separate payloads: a C-band payload, a Ku-band payload to cover five high-performance zones (North Pacific, Northeast Asia, Southeast Pacific and South Pacific) and an innovative multibeam Ku-band payload designed specifically to support broadband in-flight services. This new payload will be the first in the Asia-Pacific region designed specially to deliver connectivity onboard aircraft. The all-electric propulsion Eutelsat 172B satellite will have a mass at liftoff of roughly 3.5 tons. It will be built by Airbus Defence and Space and released into an orbit at 172 degrees East.

DigitalGlobe Announces Second 30-centimeter Satellite to Launch in Mid-2016

July 31, 2014 - DigitalGlobe announced its plans to accelerate the launch of WorldView-4, previously named GeoEye-2, to mid-2016 to meet demand from DigitalGlobe's Direct Access and other commercial customers. A significant catalyst for this increased opportunity was the U.S. Department of Commerce's recent decision to allow DigitalGlobe to sell imagery with resolution of up to 25 centimeters. DigitalGlobe now plans to launch WorldView-4 in mid-2016 providing our customers with assured access to 30 centimeter resolution imagery – the highest resolution imagery commercially available. WorldView-4 will serve an expanding addressable market for high resolution imagery at 30 centimeters, and the decision to accelerate its launch is supported by demand from DigitalGlobe's existing customer base and is expected to be accretive to returns.

EXECUTIVE MOVES

Boeing Names Craig Cooning President of Network & Space Businesses

July 1, 2014 - Boeing has named Craig R. Cooning as President of its Network & Space Systems (N&SS) businesses, effective immediately. Cooning succeeds Roger Krone, who took a position at another company. Cooning had been the vice president and general manager of Space & Intelligence Systems within N&SS. He now reports directly to Chris Chadwick, president and CEO of the Boeing Defense, Space & Security business unit. Cooning is a retired U.S. Air Force major general who concluded his military career as director of Space Acquisition in the Office of the Under Secretary of the Air Force. Starting today he leads Boeing's activities in intelligence, security, and surveillance systems, information systems, and space exploration, in addition to its satellite work.

Yohann Leroy Appointed Eutelsat Chief Technical Officer

July 11, 2014 - Eutelsat Communications announces the appointment of Yohann Leroy as Chief Technical Officer, succeeding Raphaël Mussalian who will continue to contribute his experience to Eutelsat as Special Advisor on Technology Strategy reporting to Michel de Rosen, Chairman and CEO. As Chief Technical Officer, Yohann is responsible for ensuring Eutelsat continues to exploit and invest in key satellite and terrestrial technologies for the benefit of its customers. His responsibilities encompass leading Eutelsat's in-orbit expansion programme including satellite procurement, launch as well as in-orbit and network operations from its teleports around the globe, and driving Eutelsat's long-term satellite technology roadmap. Yohann Leroy joined Eutelsat in 2010 as Director of Strategy before assuming the role of Director of Engineering in 2013. From 2007 to 2010 he was technical advisor, in charge notably of the digital economy and industrial policy, in the office of the French Prime Minister.

Frontier Communications appoints Paul Quick as SVP and GM of Connecticut Operations

July 23, 2014) Frontier Communications Corporation, a provider of broadband, voice, data and satellite television services, announced that Paul Quick has been appointed Senior Vice President and General Manager of its Connecticut operations. Quick will oversee field operations, residential and commercial sales, and every aspect of the customer experience in Connecticut and be based in Frontier's state headquarters in Hartford. Most recently Quick was Senior Vice President and General Manager of Frontier's Pennsylvania operations.

Intelsat Appoints Patricia Cooper as Vice President, Government Affairs and Policy

July 30, 2014 - Intelsat announced that Patricia Cooper has been named as the company's Vice President, Government Affairs and Policy, effective August 25. In this newly created role, Cooper will be responsible for leading the company's U.S., European and other international government lobbying and advocacy activities and relationship management. She will also manage Intelsat's political programs in the United States, including overseeing the company's political action committee. Cooper will work closely with other companies, associations and coalitions on issues of mutual interest. She will be based in Washington, D.C. and report directly to Michelle Bryan, Executive Vice President, General Counsel and Chief Administrative Officer. Cooper joins Intelsat from the Satellite Industry Association (SIA), where she served as SIA's President since 2007.

Leonard Wapler Appointed CFO of Eutelsat Americas, Joanna Darlington Joins Eutelsat Communications as Head of Investor Relations

July 30, 2014 - Eutelsat Communications has appointed Leonard Wapler as Chief Financial Officer of Eutelsat Americas, based in Mexico City. Leonard joined Eutelsat in May 2011 and has been Head of Investor Relations since 2013. As Financial Business Manager, his assignments have also included the Satmex acquisition financing. Prior to Eutelsat, he was a Corporate Relationship Manager at the Royal Bank of Scotland, and worked in

auditing and transaction advisory services at PwC and Ernst & Young. He is a graduate of HEC (Paris), the French business school. Joanna Darlington will become Eutelsat's Head of Investor Relations on 1 September, reporting to the CFO, Antoine Castarède. She joins Eutelsat from the Corporate Advisory Group of KPMG Makinson Cowell. Previously, she was head of European equity research at BNP Paribas and head of Pan-European research at ABN AMRO Hoare Govett. Joanna is a graduate of the University of Cambridge.

REPORTS

Demand for Nano and Microsatellites Increasing across All Applications

July 7, 2014 - NSR's Nano and Microsatellite Markets report finds increasing reliability and capabilities driving uptake of 1-50 kg satellites across all applications, operators, and regions. In 2013 this nascent market surged into view with a trebling of total launches compared to 2012, and this higher launch rate will be sustained through the remainder of the decade and beyond. Opportunities exist to use nano/micro satellites both as a complement to existing GEO assets and as independent missions.

Government Funding for Space on the Road to Recovery

July 9, 2014 - According to Euroconsult's newly released executive report, Government Space Programs: Strategic Outlook, Benchmarks & Forecasts, government funding for space is expected to progressively recover as public finances regain their comfort zone and programs enter a new growth cycle. Following a critical period of cyclical low funding which concluded in a budget decrease in 2013 worldwide, moderate growth is expected moving forward which should bring world spending to \$82 billion by 2023. Although civil programs drive current funding, accounting for 61% of the world's total, defense programs are expected to experience a remarkable recovery while civil funding should plateau before entering a new expansion phase later in the decade.

\$248 Billion for Manufacture and Launch of 1,155 Satellites over Next Decade

July 31, 2014 - According to Euroconsult's newly released research report, Satellites to be Built & Launched, 115 satellites will be launched on average yearly over the next decade (2014-2023). In comparison with last year's forecast, the number of satellites is stable while market value is growing, thus translating the growing economic importance of the sector, for both governments and commercial satellite companies. Governments all over the world will be responsible for more than 75% of the \$248 billion in revenues expected from the manufacturing and launch of these 1,155 satellites. In the commercial space sector, Euroconsult anticipates a total of 350 satellites to be launched over the decade, most of which will be for the replacement of capacity existing in-orbit. These satellites will be equally divided between the geostationary orbit (GEO) and lower altitude orbits (MEO and LEO); 83% of market value remains concentrated in the geostationary orbit, the destination of 300+ satellites operated by 30 commercial companies for communications and broadcasting services. Still, the constellations to be launched in non-geostationary orbits for communications services and Earth observation imagery should represent a market of \$1 billion per year on average over the decade.

UPCOMING EVENTS

MilSatCom Latin America, August 27-28, 2014, Rio del Janeiro, Brazil, www.milsatcom-latinamerica.com

World Satellite Business Week, September 8-12, Paris, France, www.satellite-business.com

IBC 2014, September 11-16, 2014, Amsterdam, the Netherlands, www.ibc.org

VSAT 2014, September 17-19, 2014, London, U.K., <http://vsatevent.com>

APSCC 2014 Satellite RF Interference Mitigation Meeting, September 22, 2014, Phuket, Thailand, www.apsc.or.kr

APSCC 2014 Satellite Conference and Exhibition, September 23-25, 2014, Phuket, Thailand, www.apsc.or.kr

IRG Workshop, September 25, 2014, Phuket, Thailand, www.apsc.or.kr

Telecoms World Middle East 2014, September 29-30, 2014, Dubai, UAE,
www.terrappinn.com/conference/telecoms-world-middle-east/

2014 Joint Conference on Satellite Communications (JS-SAT 2014), 23-24 October 2014, Busan, Korea,
www.kosst.or.kr/JC-SAT/2014

CASBAA Convention 2014, 27-30 October, 2014, Hong Kong, www.casbaaconvention.com
CASBAA's highly anticipated annual multichannel TV industry convention will take place from October 27-30, 2014 at the Grand Hyatt Hong Kong. A popular stop on the Asia Pacific broadcasting calendar, this year's event will explore the theme "Beyond the Box." For further information about the CASBAA Convention 2014, please visit www.casbaaconvention.com

China Satellite 2014, 28-30 October 2014, Beijing, China, www.china-satellite.org

Global MilSatCom 2014, 4-6 November, 2014, London, U.K., www.smi-online.co.uk/2014globalmilsatcom9.asp
Don't miss the 16th annual Global MilSatCom conference and exhibition, the world's leading military satellite communications event. Global MilSatCom 2014 will bring together the industry's key senior military representatives who use MilSatCom in their operations alongside the world's leading SatCom solutions providers and operators. If you are involved in any area of military satellite communications, this is your 'must attend' conference of 2014. There is a £300 early bird discount for all those interested in attending. Please register by 30th June at: www.globalmilsatcom.com.

Oil & Gas Communications South East Asia 2014: *Evolving the Big Data Oilfield*, 19-20 November 2014, Kuala Lumpur, Malaysia, <http://www.uk-emp.co.uk/current-events/o-gsea-2014/>
The 22nd Conference in the GVF Oil & Gas Communications Series will take place in association with Intelsat, with thanks to Petronas, and with the APSCC as conference Supporting Association. The conference will be the 7th for South East Asia, providing another key opportunity for an innovative and extended networking platform for communications end-users and communications solution vendor expert practitioners.

Myanmar Satellite Forum 2014, 19 November 2014, Yangon, Myanmar, www.communicastmyanmar.com

Asia-Pacific Regional Space Agency Forum (APRSF-21), 2 - 5 December 2014, Tokyo, Japan.
http://www.aprsaf.org/annual_meetings/aprsaf21/meeting_details.php

Editorials and Inquiries

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About APSCC

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