Vol. 4 No. 3 March 2011



What's Inside

Stock Monitor.....27

Industry Trends, News Analysis, Market Intelligence and Opportunities

Satellite Operators Going After Mobile Backhaul Market

Operators are scrambling to get a piece of the growing mobile backhaul market

by Elisabeth Tweedie

rage consume five times as much bandwidth as a regular cell phone and the number of smart O3b announced itself to the world during Satellite

tional Telecommunications Union (ITU) to call for an increase in both fiber and spectrum in order to avoid network bottlenecks. In July 2010 NSR projected that the satellite portion of this market should be worth just under US\$ 600 million by 2015.

Whichever number you choose, it's a large market and one that is attracting a lot of interest both from the major established operators. SES, Intelsat and Eutelsat are all targeting that segment - and also from the new and aspiring operators: Avanti, O3b and now COMMStellation.

Avanti successfully launched Hylas-1, a Ka-/Ku-Band geostationary sat- cious bandwidth. ellite, at the end of last year and ex- courtesy of Samsung) pects to initiate commercial service

the main target market are consumers, David Wil- US\$ 1.2 Billion and you can understand why. liams, CEO of Avanti Communications, recently stated "In addition we are experiencing significant

bidding activity for large enterprise and cellular backhaul deals which could accelerate the rate of he demand for mobile backhaul is growing at fill." Hylas-2 for the Middle East and Africa is an unprecedented rate. Smart phones on ave-fully financed and scheduled to be launched in 2012.

referring to the failed MEO and LEO projects of the previous decade. Fast forward two and a half years to the present day and the company is regarded with a new respect. Greg Wyler, the ebullient founder, was listed in the top 50 agenda setters for technology along with Steve Jobs, Jeffrey Katzenberg, Jeff Bezos and Eric Schmidt. Board members now include five SES officers, including SES CEO Romain Bausch. Mark Rigolle who was named CEO of O3b last year was the former CFO for SES. The successor to Rigolle as CEO, Steve Collar, who will start in his new position this month, was formerly Senior Vice-President of Business

in Europe towards the end of Q1 this year. Although New Skies. Couple this with successfully raising

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The Middle East Market

he Cabsat/ Satellite MENA show in Dubai last month was a breath of fresh air in a very dynamic and evolving region. As the show report on page 18 expounds, there is a lot happening and plenty of opportunities in that region. The demand for bandwidth for various applications is not sufficiently met by terrestrial networks, making satellite a vital component in the deliv-

ery of internet, direct-to-home broadcasting and telecommunications services.

There was no sign of any of the political upheavals in some of the Middle East countries in Dubai. It was all business. If anything else, the democratic movements in some Middle East countries, which was fueled in large part by a young population using social networks like Facebook and Twitter, serve to affirm that the broadband requirements in the region will only grow through interviews with key the years.



View videos of satellite executives at the Cabsat 2011 show at

www.satellitemar kets.com/current

There's such a huge demand that operators are turning to Ka-band solutions to meet the growing requirements of the region. more Ka-band satellites have been launched or will be launched in the Middle East North Africa (MENA) region than in any part in the world.

Our cover story by Elisabeth Tweedie explores the various Ka-band initiatives currently underway. We will be hearing much about Ka-band systems in the coming years and some are already proclaiming this decade as the "Ka-band decade." We will certainly be covering the developments in this market and the others, too.

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Satellite Executive Briefing is published biweekly by Synthesis Publications LLC and is available for free at www.satellitemarkets.com

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.. Mobile Backhaul Market... from page 1

tending to connect are in the 150 coun- northern and southern latitudes - the satellites (MOST and NEOSSat). In tries located between latitudes 45° UK for example will see four simulta- order to meet the target of late 2014 -North and South. The MEO satellites neously. 2013, with a further 12 possibly in ser- under US\$ 1 Billion. vice by 2015. Each satellite has 10 capacity between users. One of the Stellation, then and still at the time of underway through Industry Canada (the alternative for Telecom Operators and cording to CEO David Cooper they task. Assuming all this goes smoothly,

ISPs. As of September 2010 O3b had US\$ 600 million in sales backlog. Since then it has announced a five-year deal with Etisalat for mobile backhaul and trunking and a multi-year deal with Netcom Nigeria for services to ships and offshore platforms.

The newest and maybe the most ambitious entrant into this market is COMMStellation. Microsat Systems Canada Inc. (MSCI), a Canadian satellite manufacturer, announced in January its intention to build an 84-satellite system in LEO orbit dubbed "Backhaul to the Future." The constellation will consist of 78 satellites in six polar orbital planes with a spare in each orbit. Each satellite will have 10 Ka-Band transponders with a total throughput per satellite of 12 Gbps. Ka-Band is usually associated with small ground antennas, however in this instance since the consumer is not a target, the system has been designed

with the aim of keeping the satellite have been "inundated with offers" and lite prime contractors and sells dozens will have a footprint of approximately launch companies. 4.2 million miles i.e. covering an area a little larger than the United States. This initiative may well be "demand tems to accommodate multiple concur-

will be in an equatorial orbit and the including 20 ground stations, launch time) COMMStellation needs to start first eight should be operational in and insurance—is currently pegged at bending metal by the beginning of next

two-axis steerable antennas, providing Media and HSBC on board at the time The first of course is raising the capital the flexibility to dynamically assign of the initial announcement, COMM- in order to do so. Regulatory filings are four markets that O3b are targeting is writing has not announced any financial Canadian equivalent of the FCC) and the backhaul market for mobile opera- backers or partners, although it has they're hoping that appropriate partners tors. The other three are: Satellite Sermade it very clear in all the announce- will be able to help with frequency covice Providers, Enterprises and fiber ments that it is looking for these. Ac- ordination, another not insignificant



Canada's MSCI is planning a 84-satellite constellation in LEO orbit dubbed "Backhaul to the Future." However, it has a lot of financial and regulatory hurdles to go through to get their project into fruition. In contrast, O3b Networks has lined up the financing and has started to build its 8satellite system in MEO orbit with backing from SES and other major players. (image: MSCI)

simple with as much of the electronics are now going through the selection per year; so it does have experience in as possible on the ground. This trans- process. A Request for Proposal (RFP) volume manufacturing. It is also apparlates into large (2.5 meter) tracking for the payload went out last year and ently currently going through a comantennas for the users. Each satellite discussions are being held with the plete review and upgrade of PA

However since this is a polar orbit the pull" as David Cooper says. The market rent satellite builds. The bus used for number of satellites in view at any one for backhaul is certainly there. Never- MOST and NEOSSat is based on a time will vary depending on the latitude theless this is a bold move for a com-standardized architecture, which should

The "other 3 billion" that O3b are in- with more satellites being seen in pany that to date has only built two The total system cost- early 2015 launches (14 satellites at a year and rapidly scale up to producing two satellites per month. That's the Gbps throughput with 12 fixed feed Unlike O3b which had Google, Liberty second and not inconsiderable hurdle.

> then comes the transition from satellite manufacturer to operator and service provider. Again, appropriate partners may help with some of this. MSCI does provide the Telemetry, Tracking and Control (TT&C) for MOST so already has experience in this area and they are intending to establish marketing and sales relationships around the world....but that's a big market to attack!

> It would therefore appear that the success of this venture hinges on three things: David Cooper's ability to turn a small custom satellite manufacturing operation into a major production line, obtaining the right partners and raising the money.

> To briefly consider each of these. Although MSCI is not a volume producer of microsatellites, it is the largest global manufacturer of reaction wheels for other microsatel-

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also help in ramping up production.

Credit Agencies have helped finance tioned, other extraneous factors will years. several satellite ventures including O3b, Avanti, Iridium and GlobalStar, so it's not inconceivable that COMMStellation will also benefit from this source.

So will COMMStellation succeed? According to O3b their satellites will address less than 0.5% of the emerging markets 3G backhaul needs, so that leaves plenty for COMMStellation and other operators. Large markets

attract many players, some of whom also have an impact. may want to partner with COMMStella-Obtaining the right partners and raising tion, some of whom may want to com- The demand is there. For any company the money may well go hand in hand. pete. Improvements and /or an increase this would be a tough project; for MSCI COMMStellation is described as a in terrestrial capacity will also have an in particular it is a very ambitious one, "consortium of companies," so pre- impact. Dialogic Inc. for example, and one that to a large extent will desumably companies other than MSCI announced at the beginning of February pend on the quality of the partners it will be involved. If these turn out to be that it had a new optimizer for mobile manages to attract. The satellite industhe right strategic partners, ones with backhaul that could double the amount try is littered with examples of systems relevant experience in global telecom- of data that a standard network could that do get launched, but years later munications for example, the path to handle. This Optimizer could also be than originally planned. O3b was supraising money, accessing customers, used for satellite networks, but the eco- posed to be operational in 2010, Spaceand frequency coordination could be a nomics may not be as good as those for way North America in 1997. Given all lot smoother. Timing is everything. In terrestrial. Some countries will doubt- the challenges ahead it wouldn't be the last two years whilst other industries less answer the call from the ITU. So in surprising if the best outcome has the have struggled to raise money, Export addition to the challenges already men- 2014-15 launch date slipping by a few



Elisabeth Tweedie has over 20 years experience at the cutting edge of new communication and entertainment technologies. She is the founder and President of Definitive Direction a consultancy that focuses on researching and evaluating the long term potential for new ventures, initiating their development and identifying and developing appropriate alliances. During her 10

years at Hughes Electronics she worked on every acquisition and new business that the company considered during her time there. www.definitivedirection.com She can be reached at: etweedie@definitivedirection.com



Keeping the Big Picture in View

Leveraging Satellite Technology for Employee Communications

by Dan Freyer

ow do you efficiently keep large numbers of employees in many locations updated on the latest training, company news, strategies, products, regulations, or benefits and more? How do you do this when your workforce is spread across the country, across time zones, or around the globe, and you need to gather larger numbers of people together at the same time? And how do you reach this wide audience with the maximum audiovisual impact, whether workers may be in conference rooms. hotels, auditoriums, offices and other venues?

Minimizing travel related expenses and wasted time is a corporate imperative evervwhere. Leading pestcontrol firm Orkin's solution to keeping its 8,000employee workforce well trained is illustrative. Instead of spending significant funds in travel and lodging costs to bring workers scattered across 400 locations into regional training venues, it implemented a sophisticated satellite-based interactive training network. Using vices for Orkin, the pest-satellite video programs. control company greatly

reduced its budget for training delivery, avoided travel expenses, and slashed time to competency by 40% -so it could train about 3,000 employees annually without lost travel time. Orkin's approach to this workforce management challenge is not unique. Major businesses including the likes of Nokia, Hewlett Packard, Microsoft, Apple, Safeway, Georgia Pacific and others turn to experts skilled in a combination of technologies including satellite video, videoconferencing and webcasting services for the tools to address this challenge.

An example of how a private interactive satellite system can help a large company quickly communicate its transformation goals is the case of Schneider Electric, a specialist in

global energy management with operations in more than 100 countries. Its Palatine, IL-headquartered North American division has over 24,000 employees in 160 facilities across the U.S., Canada and Mexico. To rapidly and effectively communicate important information like product, sales, training, and strategic initiatives to its employees, the division broadcasts live interactive satellite video programs using satellite services from Keystone Enterprise Services.

"The Schneider Television Network (or STN) allows us to reach people in over 100 locations at the same time, explains Brian Carney, Multimedia Services & Business Television Manager for Schneider Electric. "Wherever we can put a

satellite dish and box, we would have."

can reach them from our studio. We have real-time call-ins and online twoway communications that allows executives to communicate in a forum they not otherwise "Keystone gives us a 'one stop shop' for services including satellite scheduling and transmission, site installation, setup, help desk, and support for the network," he

The company's internal organization. "The prerequisite of most of our

strategic ambitions is a single, aligned organization," according to company literature. Its business television (BTV) network gives the company a valuable tool towards that end.

"Our North American CEO uses the satellite network to reach all employees, from plants to field offices, and satellite is a big component of that. Employees can ask direct, honest and anonymous questions through the interactive system," explains Carney.

Since 1992, the company broadcast around 30 hours a year, typically over 20 or so broadcasts. The payback for its initial investment in the satellite network was quickly realized, and this past year it has increased its airtime.



the network, designed, in- To rapidly and effectively communicate important informastalled, and managed by tion like product, sales, training, and strategic initiatives to its program, known as One, Keystone Enterprise Ser- employees, Schneider Electric broadcasts live interactive aims to transform the "Recently we held the first live all-employee CEO address from another country. The broadcast from Montreal was a huge success, allowing the CEO to showcase the grand opening of a new facility there," explains Carney. "To produce broadcasts from outside our studio, we have relied on Keystone for remote on-site production and transmission services and it's been very successful." Keystone's complete production services for Schneider Electric include crew, satellite trucks, audiovisual gear, and transmission services.

Streaming video over the web, while inexpensive, can result in jerky and intermittent video and audio. But more importantly, it typically does not deliver video resolution that is acceptable for projection on to big screens, say satellite industry experts. An advantage with satellite broadcasting is its ability to deliver full quality video to large projection screens and displays – for conferences and large venue meetings—at up to full High Definition (HD) quality. Satellite-based solutions also offer nationwide and global reach, letting companies share vour message cost-effectively with virtually any authorized and equipped site, and there are thousands of satellite-capable venues available around the world. Huge improvements in the cost-efficiency and video technology make satellite links combined with webcasting and video conferencing more affordable than ever before.

something we want to push, as well as our ability to provide web streaming services in support of global marketing and external communications."

Industry experts offer a number of suggestions on how com- live satellite broadcast. panies can make best use of technologies like satellite to tie their workforce together, whether for 'all hands meetings,' conferences, seminars and similar programs:

being delivering will be absorbed. Large projection screens, plasma displays and beautiful or HD video and audio will have far better impact than jerky web video on small screens.

Make it Interactive: The value of direct viewer interaction with a broadcast is huge. Audience response solutions can help engage participants and measure participation. These can include live audience polling, on-screen audience poll results and graphics integration, audio conferencing, and chat/email viewer interaction management.

Poll Your Participants: Before and after sessions, poll participants on their logistics, expectations and perceptions of the content and delivery—so companies can measure success. With audience response systems you can survey during sessions, and capture ROI metrics, so companies can better track and understand the communications value delivered to your organization, and build on their success. Savings can be very impressive.



Maximize Inclusion: Include remote locations and venues to expand your coverage, which can include hotel meeting rooms, conference centers, corporate offices, etc. give attendees who can not come to the local office or meeting venue the ability to join and access via their desktopand even via mobile devices. For international workforces, live translation into multiple languages enhances audience participation for those locations that require specific lan-Excited about future opportunities to add value, Schneider guage capability. Some vendors can add all these solutions, Electric's Carney says, "The interactivity of the platform is and tie in videoconferencing-equipped sites with satellite and webcast locations simultaneously.

> **On-Demand:** practitioners also recommend that a company try to offer on-demand/webcast video in tandem with any Track-able on-demand and download replay viewing figures can also help the communicators gauge success, assess content consumption, and help add value.

Visual Impact: Focus on making your content shine. Capti- Interactive video technologies like satellite let companies' vate audiences with audiovisual impact—so the message top management as well as corporate communications; human relations and training managers deliver powerful results and impact for their organizations.

> Hiring a specialized enterprise video or satellite business television partner to help handle the technology lets companies focus on the most important part of communicating- the content of their message.



Dan Freyer is the principal of Ad-Wavez Marketing, an integrated marketing agency serving the satellite industry. Since 1990, he has worked with leading spacecraft and ground equipment manufacturers,

satellite operators, and video and IP users to grow their brands and businesses. He can be reached at dan@AdWavez.com



A summary of the most important news and developments from February 16-28, 2011.

HEADLINES

Boeing Forms Commercial Satellite Services Unit

El Segundo, Calif., Feb. 22—Boeing announced that it has established **Boeing Commercial Satellite Services** to market commercial satellite telecommunications services to the U.S. government and other satellite users. Headquartered in El Segundo, the group is a part of Boeing Space & Intelligence Systems.

The new unit will focus on marketing hosted payloads for the government and military markets. Hosted payloads represent an important move Boeing is making to respond to the global demand for more communications bandwidth, according to the company. Hosted payloads can be designed in a variety of configurations based on customer needs and can be a more affordable and timely option than procuring a complete satellite. A commercial satellite carrying a hosted payload can generally be delivered in less than three years.

Boeing Commercial Satellite Services will work with the owners of satellite The acquisition extends Encompass' systems to market available bandwidth hosted payloads on their future spacecraft. The new division will market the payloads to prospective customers in cooperation with the host satellites' owners

Lightsquared Closes \$ 586 million in Additional Financing

Reston, Va. Feb. 22-Wholesale wireless broadband and satellite provider LightSquared™ has closed on US\$ 586 million of debt, led by UBS AG and JP LightSquared will use the work. Over the last seven months, quarter of 2013. LightSquared has raised more than \$2 billion in debt and equity.

LightSquared plans to build a 4G/LTE network covering over 90 percent of the United States population. The U.S. Federal Communications Commission has already granted the company a waiver to offer terrestrial only service, bypassing the requirement that handsets communicate with both terrestrial cell towers and satellites. The company plans to 2011.

MERGERS & ACQUISITIONS

Encompass Completes Acquisition of Ascent Media's Content Distribution Business

Los Angeles, Calif., Feb. 22-Encompass Digital Media, Inc. announced the completion of the purchase of Ascent Media Corporation's global content distribution business. This transaction includes broadcast facilities in the U.S., London and Singapore.

global network which includes on active systems as well as to include 24/7/365 Teleport facilities and technical personnel in Los Angeles, CA; Atlanta, GA; New York, NY; Stamford, CT; Lino Lakes and Minneapolis, MN; Burbank, CA; London, U.K.; and Singapore.

CONTRACTS

SES World Skies Awards SES-8 Satellite to Orbital

The Hague, Feb. 17—In response to the strong demand for additional DTH capacity in Asia, SES World Skies,

proceeds of the financing for general announced that it has commissioned the corporate purposes, which include con- SES-8 satellite from Orbital Sciences structing its 4G-LTE-wholesale net- Corporation for a launch in the first

SES-8 will feature 33 high-power Kuband (36 MHz-equivalent) transponders and will be co-positioned with the NSS-6 satellite at the orbital location of 95 degrees East. SES-8 is a medium-sized satellite with beams focused on South Asia (India) and Indo-China (Thailand, Vietnam, Laos) to support existing DTH customers with back-up and growth transponder capacity. The spacecraft will be built on Orbital's go commercial in the third quarter of STAR spacecraft platform and will generate approximately 5.0 kilowatts of payload power.

NATO Awards IDIQ Contract to Segovia

Herndon, Va. Feb. 22- Segovia, Inc., a wholly owned subsidiary of Inmarsat plc has been awarded NATO's Communication Information Services (CIS) Consultant Support Services indefinite delivery, indefinite quantity (IDIQ) contract to provide professional and technical services support to the International Security Assistance Force (ISAF) in Afghanistan. The IDIQ has a four-year period of performance if all option years are exercised.

Segovia was also awarded the first task order under the IDIQ - a multi-million dollar contract to deploy full-time communication and information services support to Kandahar, Afghanistan. Under the contract, Segovia's expert consultants will provide CIS support to NATO operations.

Globecomm Completes Broadcast Center Upgrade for Televisa

Mexico City., Feb. 16-- Globecomm Systems Inc. announced the completion of a satellite uplink hub for Televisa at its Mexico City Broadcast Cen-

Globecomm's design supports seven standard-definition and three highdefinition video carriers on 9m and 11m earth stations, with redundancy switching to a backup 9m antenna in the event of terminal failure or maintenance

The new uplink capacity supports Sky's DTH program over Mexico, with capacity built into the system for future carri-

RRSat to Provide 3D Services to Fashion TV

Re'em, Israel, Feb. 23-RRsat Global Communications Network Ltd. is providing uplink, playout and connectivity services for fashiontv H3, the 3D programming on the Fashion TV Paris High Definition channel.

EXECUTIVE MOVES

O3b Networks Appoints Steven Collar CEO

The Hague, Feb. 23-O3b Networks has appointed Steve Collar as Chief Executive Officer. Collar succeeds Mark Rigolle. After a handover period, Mr. Collar will formally take up his new position on March 7.



Steve Collar

Collar joins O3b from SES where he served as SVP of Business and Market Development for SES World Skies. In this role, he oversaw the company's long-range strategic planning activities and was instrumental in SES' investment in O3b Networks.

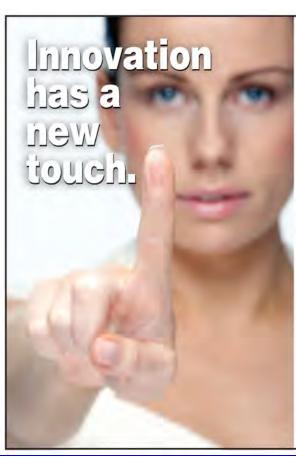
Yosi Albagli Joins Orbit as **President of Satellite Business Unit**

Hatzoram, Israel, Feb. 24—Satellite Communications, Tracking & Telemetry, and Communications Management Systems provider Orbit Yosi Albagli Communication Sys-



tems, Ltd., appointed Yosi Albagli to the position of Executive VP and President, Satellite Communications business unit.

Prior to joining ORBIT, Albagli was CEO of CTWARE Ltd., a startup in the area of cloud-based contact center applications. In 1994, Albagli founded Tdsoft Communications, and served as its President and CEO for 11 years. Following Tdsoft's reverse merger with VocalTec Communications in 2005, Albagli continued to serve as President and CEO of VocalTec until 2008.



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SSPI to Honor Hall of Fame Inductees

Reception prior to SSPI's annual Gala.

SSPI will also honor Marine General James Cartwright, Vice ing fiber transmission industry. Chairman of the Joint Chiefs of Staff, with its first annual Stellar Award, which honors service to the United States Edward Horowitz, former CEO of SES Americom, joined Government involving satellites.

The 2011 Hall of Fame Honorees are:

commercial satellite ever launched for Japan, JCSAT-1, in on-orbit satellites. 1989.

has been an industry innovator and leader for over 30 mapping mission. Since then, he presided over the creation years. As the engineering and technology leader for PanAm- of one commercial launch services company, Starsem, and Sat, he was instrumental in the success of the world's first the resurrection of another, Arianespace. competitive international satellite operator before its acquisition by Intelsat. Under his management, SES World Skies Dean Olmstead. Dean Olmstead's career spanned governhas grown to a fleet of 28 satellites with 99% of the world's ment and industry, international and domestic assignments, population living within its footprint.

with a market capitalization of 6 Billion euros.

Washington, D.C.- The Society of Satellite Professionals Ellen Hoff, President of W.L. Prichard & Co., has made an International announced the seven inductees for the 2011 indelible mark on the satellite industry over the last 40 Hall of Fame, to be honored on March 15 during the Stellar years. In work with Comsat and Intelsat, she convinced the leadership of the companies to introduce digital services in 1983 to provide a competitive response to the newly emerg-

the satellite industry when he became one of the first 30 employees of a small cable company named Home Box Office. Since leaving SES, he has continued to innovate as cofounder of U.S. Space, which offers commercial, privately-Masanori Akiyama, President and CEO of Sky Perfect financed military satellite communications to the U.S. Gov-JSAT Corporation, has been instrumental in the satellite ernment, and which recently announced a joint venture with business in Japan since its inception and helped sell the first ATK to create ViviSat, provider of life extension services for

Jean-Yves Le Gall, CEO of Arianespace, started his satellite Robert Bednarek, President and CEO of SES World Skies, career nearly 30 years ago as a researcher for a French star-

leadership and Board positions with the most storied names in the business. As a top business executive, he was respon-Giuliano Berretta, Chairman of the Board of Eutelsat Com- sible for SES investments in Asiasat and AMERICOM, for munications, joined the organization in September 1990 as leadership of Echostar, and for the sale of Arrowhead Global its first Commercial Director. Appointed Director General in to CapRock Communications. He is the recipient of a rare 1998, he lead its reorganization as a private company and its posthumous induction into the Hall of Fame in recognition of initial public offering, producing a publicly-held company a career that, though cut short by illness, had a transformative impact on the industry.

Application Technology Strategy, Inc.

Application Technology Strategy, Inc. (ATSI) is the satellite consulting firm founded by Bruce Elbert, leading satellite expert, consultant, technologist, educator and author of standard industry books.

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Key industry trends and opportunities.

Worldwide Pay-TV Subscriptions to Exceed 745 million in 2011

The Asia-Pacific region with 57% of all Pay-TV subscriptions globally remains the largest market

data from ABI Research, there were more than 704 million tion in these countries creates a great opportunity to expand pay-TV subscribers globally at the end of 2010, increased the subscriber base. This is not only true of China and India: more than 56 million subscribers from 2009. The Asia- Thailand's cable and satellite TV market is likely to boom as Pacific region, which owns 57% of global pay-TV subscrip- well in coming years, due to recent government plans for tions, remains the largest pay-TV market in the world.

cable penetration in regions such as North America and Western Europe, and the increasing popularity of online video services, have resulted in slow growth in worldwide cable TV markets."

"The growing numbers of digital TV households and high speed broadband households in the Asia-Pacific region enable operators to deliver advanced pay-TV packages such as high-definition (HDTV) and IPTV that offer more options to customers," comments research associate Khin Sandi Lynn.

In terms of subscriptions, China and India already stand in the first and second positions respectively in the worldwide +1.516.624.2500.

Singapore, Feb. 23,—According to the most recent market pay-TV market. However the low level of pay-TV penetraregulatory changes in the broadcasting industry.

"The growth rate is good in all pay-TV platforms except The deployment of digital television is seen as a significant cable TV," notes practice director Jason Blackwell. "High development in some countries. In 2010 more than half of all pay-TV subscribers are digital TV subscribers. Launches of high-definition (HDTV) television services via a variety of pay-TV platforms are being accelerated by operators around the world. In 2011, total HDTV subscriptions are expected to reach 225 million.

> ABI Research's new Market Data product, "Pay-TV Subscriber Market Data" is updated quarterly and profiles global pay-TV subscription information. Detailed market trends and market forecast information for key regions and countries around the world are provided where available. For more information visit www.abiresearch.com, or call

NTIA Releases National Broadband Map, Survey Results

communications and Information Ad- data on America's broadband Internet health care, education, and public ministration (NTIA) unveiled the Na- capabilities in order to improve them. safety." tional Broadband Map -- the first public, searchable nationwide map of broadband Internet availability -- and the results of a new nationwide survey on broadband adoption. The data will support efforts to expand broadband access and adoption in communities at risk of being left behind in the 21st century economy and help businesses and consumers seeking information on their high-speed Internet options.

competitiveness in the global digital study, will inform efforts to enhance

Washington, D.C., Feb. 17—The De- uty Secretary Rebecca Blank. "But as - spurring greater innovation, economic partment of Commerce's National Tele- Congress recognized, we need better opportunities, and advancements in



"A state-of-the-art communications The National Broadband Map, along infrastructure is essential to America's with today's broadband Internet usage economy," said Acting Commerce Dep- broadband Internet access and adoption-

"The National Broadband Map shows there are still too many people and community institutions lacking the level of broadband service needed to fully participate in the Internet economy. We are pleased to see the increase in broadband adoption last year, particularly in light of the difficult economic environment, but a digital divide remains," said Assistant Secretary for Communications and Information and NTIA Administrator Lawrence E. Strickling. The National Broadband Map is available at http://www.broadbandmap.gov/

Market for Video Transmission Services over Satellite to Reach \$ 27 Billion by 2020

Paris, February 9—In its recently released report, Euroconsult forecasts that the market value for video transmission services over satellite including video distribution services for TV channels and contribution services for permanent and occasional use is expected to reach \$27 billion in 2020, up from \$15.8 billion in 2010.

"The anticipated revenue growth for video transmission services in the coming years is based on strong market drivers such as the multiplication of channels, the launch of new formats and the takeoff of digital TV in emerging regions," demand for increasingly complex video transmission solutions will push service providers to create end-to-end solutions with satellite remaining a key part of the delivery network."

TV channel distribution: A core market, new standards and emerging regions driving growth

The video transmission market is mainly supported by the distribution of video content on pay-TV platforms, with TV signals delivered to viewers either directly by satellite or through the head-ends of terrestrial networks.

According to the Euroconsult's 'Video Transmission Services over Satellite, Global Market Analysis & Forecasts to 2020,' an estimated 25,000 TV signals were transmitted by satellite by year-end 2010. While the North American and European markets remain the largest markets, the takeoff of digital TV in emerging regions, such as India, Russia and Brazil, could make those markets the most important growth engines over the next ten years. Technological improvements are profoundly transforming the market for video transmission, with more complex and diverse requirement offering new revenue opportunities to market players. The migration to HD and 3D transmission formats, the roll-out of fiber and 3G/4G networks, the development of linear and non linear usage and the multiplication of video screens all play a critical role in this phenomenon.

Innovation boosts the video contribution market

Meanwhile video contribution services, with the transmission of raw video material, are also growing with a 24% CAGR in terminals deployed in the last five years. The need to broadcast live programming and cover both global and local events is fueling TV-channel demand for occasional video services. Innovation is playing a major role in the current market growth in satellite newsgathering (SNG) for sports, news and other programming. The introduction of

"...The anticipated revenue growth for video transmission services in the coming years is based on strong market drivers such as the multiplication of channels, the launch of new formats and the takeoff of digital TV in emerging regions..."

-Pacôme Revillon, CEO of Euroconsult

said Pacôme Revillon, CEO of Euroconsult. "Furthermore, cheaper and lighter and more portable terminals is, for example, a key driver for the multiplication of content captured and transmitted. Innovation here includes the recent introduction of MSS terminals, the current use/roll-out of 3G or 4G network terminals and the likely introduction of terminals using Ka-band satellite systems in the near term.

> Changes expected in the value chain: broadcasters increase outsourcing, consolidation among service provid-

> The video transmission market is highly fragmented with specialized service providers, satellite operators, telecommunication companies and broadcasters each managing a part of the transmission. Broadcasters still currently capture the bulk of the estimated market value of video transmission, as they continue to perform a large part of the transmission activity in-house. However, with growing demand for end-to-end services and increasingly demanding viewers, the management and transmission of video content is becoming increasingly complex.

> Some in-house broadcasting units and smaller providers may find it difficult to maintain a position in the market, due to resource and network limitations. This may lead to more vertical integration, and outsourcing to specialized companies will also become more commonplace. The continuing negative economic climate may accelerate this trend by pushing broadcasters to optimize their costs and investments.

> Likewise, industry consolidation is likely to increase due to the increased complexity of the solutions. New players are expected to emerge alongside the market consolidation and reorganization of historical market players. Recent transactions, such as the acquisitions of Ascent Media activities and Crawford Communications by Encompass, may be followed by further M&A activities in the next few years. This will be required to take advantage of growth opportunities and reach the critical size needed to manage more complex content management and transmission requirements.



Products and Services Market *Place*

A guide to key products and services showcased at the Satellite 2011 exhibition in Washington, D.C. from March 15-17, 2011.



AAE Systems, Inc., an ISO9001 registered corporation, is a global development design; engineering; procurement; construction; project management; and technical and professional services company. AAE offers engineering and management expertise in information communications technologies (ICT); government; de-

fense; civil infrastructure; rural and urban development; commercial and industrial enterprise; healthcare; and education to a diverse clientele worldwide. AAE is committed to completing challenging projects by creating innovative, sustainable, and high quality solutions that meet and exceed the expectations of its clients.

AAE Systems, Inc., manufactures satellite equipment and engineers customized turnkey solutions. With over 25 years of experience, the company has a world-renowned reputation for developing intelligent satellite-based technologies. As a satellite communications industry leader, it provides innovative and cost-effective voice, video and data solutions that meet and exceed the operational needs of its customers.

www.aaesys.com

at Satellite 2011 Visit AAE Systems at booth # 663



Spacecom is the operator of the **AMOS** satellites, which provide high-quality broadcast and communication services to Europe, the Middle East, and the Atlantic bridge to the United States. The AMOS satellite constellation, consisting of AMOS-2 and AMOS-3, co-located at the prime orbital position of 4°W, serves Direct-To-Home and other Television platforms in Europe and the Middle East, as well as provides a secure and stable transmission to govern-

ment agencies. The extensive signal strength and prime location makes the AMOS platform particularly suitable for DBS and DTH operators, as well as a wide range of broadcasters, ISPs, telecommunications operators, and network integrators with Internet, voice, data and digital TV services.

The AMOS-5i satellite, is the latest addition to the AMOS fleet. With a position at 17°E, a new orbital position, Spacecom's coverage is expanding to Africa. AMOS-5i provides powerful C-band and Ku-band coverage over Africa and is serving as an interim satellite until the AMOS-5 satellite's scheduled launch in mid-2011. Once operational, the AMOS-5 satellite will replace the AMOS-5i in its orbital position, expanding both coverage areas and capacity, to deliver highpower C-band and Ku-band capacity to the entire African continent. AMOS-5 and AMOS-5i complement Spacecom's existing satellite fleet consisting of AMOS-2 and AMOS-3, and together with AMOS-4, slated for launch in 2012 to serve Asia, will establish Spacecom as a true global satellite operator.

www.amos-spacecom.com

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ATCi, founded in 1979, offers end-to-end systems integration and technical services. From front-end consulting and planning, to integrating, installing, coordinating and managing technology solutions, ATCi has the depth and experience to respond to unique challenges and opportunities. Based upon the experience and expertise ATCi has gained through hundreds of successful installations, the communications challenge is turned into a success for its customer. Regardless of the system requirements, we create complete end-to-end solutions.

ATCi introduces Simulsat5b - the newest multibeam system capable of receiving transmissions from 35+ satellites simultaneously. Simulsat has been providing programming to over 30 million cable subscribers in the U.S. market making ATCi the world leader in multibeam technology.

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At Satellite 2011, Cobham's **Satcom Land, Satcom Marine, Microwave Communications and Tactical Communications and Surveillance** divisions will be exhibiting their products. Cobham's **Satcom Land** business unit provides a wide array of Fly-Away antennas and a broad selection of Vehicle Mount antennas including Comms On The Move, and solutions for all technical needs.

www.cobham.com/tracstar

at Satellite 2011 Visit Cobham at booth # 522



Comtech Xicom Technology, Inc., is introducing a new LCD (liquid crystal display) touch screen control interface for high-power traveling wave tube amplifiers (TWTAs) for satellite communications. The new LCD touch screen pro-

vides an easy-to-use interface for monitoring and controlling SATCOM power amplifiers in an industry-standard 19-inch wide rack-mount configuration.



Comtech Xicom's new touch screen front panel displays the HPA's operational status including power output and temperature, graphical displays of parameter trend analysis, and event logs. The system offers the ability to 'zoom-in' on fault conditions. Local and remote diagnostics can also be easily performed via an Ethernet interface.

This new display eliminates the need for separate external controllers for common architectures because it can show and control waveguide switches and a combiner, providing both cost and space savings. Another valuable feature is that all operational data is saved within the amplifier's non-volatile memory, providing more than 10 years of history for the HPA in the event that the unit needs service or repair. Uplink power control will also be an option for these systems. The new touch screen front panel controller is available as an option on all Comtech Xicom Technology rack-mount TWTAs.

www.xicomtech.com

at Satellite 2011
Visit Comtech Xicom Technology at booth # 600

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Globecomm Systems Inc. provides end-to-end value-added satellite-based communication products, services and solutions by leveraging its core satellite ground segment systems and network capa-

bilities, with its satellite communication services capabilities. The products and services Globecomm offers include pre-engineered systems, systems design and integration services, managed network services and life cycle support services. Globecomm's customers include communications service providers, commercial enterprises, broadcast and other media and content providers and government and government-related entities.

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Based in Hauppauge, New York, Globecomm Systems also maintains offices in Washington, DC, Maryland, New Jersey, the Netherlands, Hong Kong, Germany, Singapore, the United Arab Emirates and Afghanistan.

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Products and Services Market *Place*



In line with the **Hispasat** group's internationali expansion strategy into new markets such as the Americas and particularly the United States, Hispasat launched in 2004 the Amazonas 1 satellite. The group's presence in the American market is anchored in the

development of its 61° West orbital position, complemented by the 30° West position.

Hispasat's expansion in the Americas has been facilitated through its subsidiary, Hispamar Satélites, headquartered in Brazil. The Amazonas 1 satellite, specifically designed to provide broadcast and multimedia services, provides services throughout the American continent including the entire US mainland, with connectivity to Europe and



North Africa. The Amazonas 2 satellite was launched in 2009 in the 61° West orbital position and serves the entire American continent from Alaska in North America to Tierra del Fuego in South America.

Hispasat has developed into one of the leading satellite operators in the world today and one of the leaders in terms of licenses on the American continent. Landing rights have been obtained through after extensive effort during the past few years in almost all of the countries in the Americas and North Africa.

www.hispasat.com

www.hispamar.com.br

at Satellite 2011 Visit Hispasat/Hispamar at booth # 786



W.B. Walton Enterprises (Also known as Walton De-ice) designs and manufactures the broadest line of equipment available for preventing the accumulation of snow and/or ice on satellite earth station antennas. The original Walton De-ice product includes a behind the antenna main reflector plenum (enclosure) which is heated with hot air. These systems are for antennas ranging in size form 5-meters to 32-meters in diameter. Walton De-ice offers several options for heating including, gas heaters with their economical operation advantages or the low maintenance Stainless Steel

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With its vast experience and customer-service orientation, W.B. Walton Enterprises is committed to providing products of the best quality backed by superior customer service and support.

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grators with field-proven, high performance, high reliability solutions designed for mission-critical broadcast and defense satellite communications systems worldwide.

What sets Wavestream products apart from traditional amplifier solutions is our innovative Spatial Power AdvantageTM technology. This unique, patented technology allows us to generate higher output power in lighter, more compact product packages that use less energy and are more reliable. Wavestream's powerful solutions are designed to replace aging, less efficient amplifiers, helping systems integrators get the performance they need while reducing energy and maintenance costs over the lifecycle of the system.

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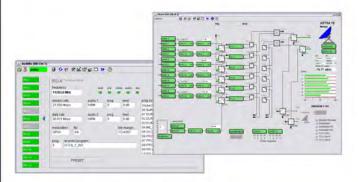
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The Middle East/ North Africa **Market is Buzzing with Activity**

by Virgil Labrador **Editor-in-Chief**

Dubai, UAE – The CABSAT & Satellite Middle East/North ground equipment and services in the MENA market. Satel-Center showcasing the latest products and developments in for some other purpose such as education. the broadcast, digital media and satellite markets.

Maktoum Al Makdirectortoum. general of Dubai's Department of Information, who officially opened the show.

With the TV audience in the Middle East projected to rise by almost 20% over the next three years and 19 new satellites scheduled for launch by 2013, according to research firm EuroConsult, opportunities are rife for satellite service pro-

viders in the sprawling MENA region straddling three conti- Markets, Applications & Technologies." The summit is part nents of Asia, Africa and Europe with an affluent, upwardly of the CABSAT & Satellite MENA 2011 exhibition's mobile population of over 500 million.

The geography and population dispersion in the Middle East The 2011 MENASAT Summit takes place at a time when, Ka-band poised to become major market in the MENA re- according to research and consulting firm NSR estimates, the gion seems tailor-made for satellite communication solu- Middle East/African market generated US\$1.35 billion in tions. The population is concentrated in cities separated by capacity-leasing revenues for FSS operators last year, a figvast stretches of desert. While some efforts have been put ure expected to grow by 3%-4% in the region for the coming forth by various national governments to invest in fiber op- year driven by a mix of applications, ranging from video tics, cost and logistics limit the fiber networks to the most distribution to DTH and data services. Within the broadband important and largest centers.

bine to create the robust demand for satellite capacity, (TPEs) of leased C- and Ku-band capacity in 2010.



Africa (MENA) 2011 show held in Dubai, UAE, from Feb- lite broadband Internet is gaining ground while backhauling ruary 8-10 bills itself as the third-largest satellite event of its for commercial cellular phones and enterprise networks kind in the world and it has grown by 15% compared to last maintain a respectable pace behind. The majority of satellite year. More than 750 companies from 55 countries, including TV in the region, roughly 75%, is offered free to air (FTA) 11 national pavilions, exhibited at the Dubai World Trade with revenue generated through advertising, or subsidized

The preponderance of FTA satellite is a unique feature of the "This presages a quantum leap in the digital media and MENA region. Not even the introduction of premium serbroadcast industry in the region," said Sheikh Hasher bin vices such as HD and 3D TV can reverse the trend for audi-

> ences in the Middle East to prefer free satellite channels. However, like terrestrial TV, FTA channels in the MENA region are enjoying brisk business from sponsorships ad revenue.

I was privileged to have chaired a session at the GVF MENASAT Summit themed, "New Drivers, New Dv-**MENA** namics:

Communications "Knowledge Exchange and CABSAT Academy" program.

satellite markets in the Middle East and Africa, NSR further estimates that trunking and backhaul services accounted for Climate, geography, population distribution and culture com- about three-quarters of the over 280 transponder equivalents

In the summit keynotes, Fatem Bader of the Arab Advisors Group and Claude Rosseau of NSR cited that monopolies are on the wane in the region, with more competition being introduced in the media sectors. This bodes well for commercial service providers who are coming to the MENA region in droves.

The highlight of the satellite summit is the session on "The Future is Ka," featuring Jean-Pierre De Muyt, vice-president of Worldwide Sales for Newtec; Christian Patouraux, chief product development officer of O3b Networks; Dr Muhaned Juwad, consultant at Avanti Communications; and Matteo Altobelli, marketing director of Eutelsat. The speakers took turns in in the region.

No doubt buoyed by the success of Ka-band satellites in North America which reached the

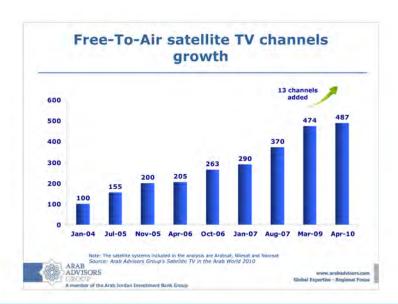
MENA region than in any other region in the world.

London-based Avanti Communications last year launched its Hylas 1 satellite, which partly serves the region, and is planning to launch another satellite this year. Last December, Eutelsat launched its all-Ka-band satellite Ka-Sat, while O3b (which stands for the "The Other 3 Billion" without broadband access), UAE-based Al Yahsat and regional operator Arabsat have announced plans to launch Ka-band satellites providing services across the MENA region and beyond.

Ka-band, which has been traditionally viewed as ideal for broadband applications due to its higher bandwidth and speed of up to 10 times the current services from Ku-band, can also be used for many other applications in the maritime, oil and gas industry, GSM backhaul, voice and IP trunking and VSATs, among others — markets that are in great demand in the MENA region.

Globally, the projected Ka-band bandwidth to be added in

the coming years by new satellites is expected to be between 300 Gbps and 400 Gbps more than the total bandwidth avail-able today from C- and Ku-band satellites combined, according to Newtec's De Muyt. Aside from the larger



extolling the virtues of Ka-band and outlined Unique to the MENA region, free-to-air satellite channels domiplans to launch Ka-band satellites and services nate the region and continues to grow unabated every year. Not even the introduction of premium services such as HD or 3D TV is expected to reverse the trend, according to regional analysts. (Source: Arab Advisors Group).

one-million subscriber mark in record time, more Ka-band than C- or Ku-band. This will definitely hasten the diffusion satellites have been launched or will be launched in the of broadband services in the region, which is now growing at an exponential pace. And unlike FTA satellite channels, broadband is something that users in the MENA region are willing to pay for.



View videos of interviews with key satellite executives at the Cabsat 2011 and a summary of the proceedings of the GVF Satellite Summit at: www.satellitemarkets.com/current



Virgil Labrador is the Editor-in-Chief of Satellite Market and **Research** based in Los Angeles, California. He is the author of two books on the satellite industry and has been coering the industry for various publications since 1998. Before that he worked in various capacities in the industry, including a stint as marketing direc-

throughputs and faster speeds, Ka-band tor for the Asia Broadcast Center, a full-service teleport based in Singapore. He would be several times cheaper per MB can be reached at virgil@satellitemarkets.com

Intersputnik Deputy Director General Stefan Kollar

ounded in 1971, Intersputnik was the second satellite company to be established after Intelsat and will be celebrating its 40th anniversary this year. The company has undergone many changes over the years, as has the industry. With 25 membercountries, Intersputnik has maintained its intergovernmental structure to this day. In the face of new competitive challenges, changes are underway in Intersputnik. Intersputnik's Deputy Director-General and Chairman of the Board of Directors of the subsidiary Intersputnik Holdings, Stefan Kollar spoke to Satellite Executive Briefing on Intersputnik's plans and how it will be facing the challenges in the new global commercial environment. Excepts of the interview follows:

2011 will be the 40th anniversary of Intersputnik. How has your company evolved to meet the competitive challenges of the 21st century?

Stefan Kollar (SK): There are two main periods in the history of Intersputnik. The first period up to the early 1990s when Intersputnik functioned as an intergovernmental organization providing services to the governments of its member-countries and not too much commercial activities. The second period from around 1992 onwards focused on the commercial business, even as we still are an intergovernmental organization, the commercial part of our business has grown tremendously in comparison to the governmental business. To give you an idea of how we have changed, we have increased our revenues about 10 times since the early 1990s with consistent and stable growth every year. This is quite a substantial achievement for a relatively small company.

How did your company do in 2010 and how do you see your prospects in 2011?

SK: 2010 was not a bad year. We saw in the last five years a stable growth in revenues for our company of between 13-20 percent per year (depending on the year). In 2010 the growth was a little lower than usual but we still grew, I think 12 percent. 2011 is shaping up nicely and we think we will go back to our previous growth rates. We expect no less than 15 percent growth this year.

We understand your Board has made several important decisions recently. Can you share the highlights of these?

SK: Our Board has made some important decisions last year. One of which was the decision to build two new satellites to serve the interest of Intersputnik member-countries and if there is some available capacity for business and commercial purposes.



Stefan Kollar

These new satellites will occupy the key orbital slots of 16⁰

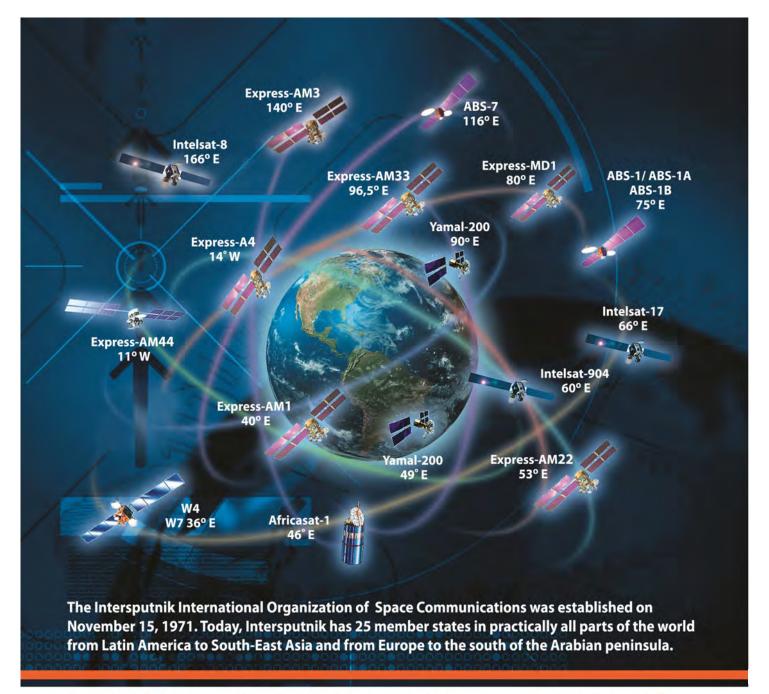
W and 78° E where they will be able to cover almost all of our member-countries in the coverage areas. The satellite at 16° W will mainly cover Europe and the satellite at 78° E will cover the Commonwealth of Independent States (CIS) countries in Eastern Europe, the Middle East and parts of Asia all the way to Vietnam.

Our Board has allotted 2010 and 2011 time frame to develop the best structure for Intersputnik to do business and explore ways of funding these two new satellites. We are not expecting that the new satellites could be fully financed by Intersputnik member-countries alone. So we are exploring partnerships with other operators and commercial companies.

We are now in negotiations with potential partners for this new venture. Before the end of the year, we will present again to our Board our vision and plan on how we intend to structure, finance and implement this project and move forward from there.

You are exploring partnerships with other operators and commercial entities for your new satellites, this sounds like your former venture with Lockheed Martin, LMI (Lockheed Martin Intersputnik). Are you considering spinning off another company?

SK: Something similar. But we don't know what the legal status of the venture will be. It will be whatever we agree on. We don't want too complicated a structure. We want it to be as simple as possible. But generally the idea is similar to what we did with Lockheed Martin.



Intersputnik's core business is to make satellite capacity available to telecommunications operators, broadcasters and corporate customers under agreements with partner operators and to offer full-scale services via its subsidiary Intersputnik Holding, Ltd. for the purpose of installing and operating satellite telecommunications networks. Such full-scale services include access to internet backbones, uplink services, switching and digital platform services as well as supply and integration of ground equipment. The Russian satellite telecommunications operator Isatel LLC, which is part of the Intersputnik Holding, Ltd. group, offers Russian and international telecommunications operators and corporate customers the required technological platform for the establishment of satellite telecommunications networks and provision of telecommunications services based on this platform.

Currently, we are offering the capacity of telecommunications satellites located in the geostationary orbit from 11° West to 166° East. One of our key partners is Russia's domestic operator – the Russian Satellite Communications Company – that owns a fleet of up-to-date Express-series spacecraft. Also, Intersputnik is the official distributor of satellite resource

belonging to the European operator Eutelsat and the resource of the Africasat-1 satellite owned by the Asian operator Measat. We provide service using the resource of the global systems such as Intelsat, SES World Skies, Telesat, have long-lasting partnership with the Asian operator «Asia Broadcast Satellite» and cooperate with other regional and domestic satellite telecommunications operators.

Intersputnik distinctive feature and main advantage is that it is an all-purpose supplier of satellite capacity and technological solutions. This is why Intersputnik's government and private customers in over 40 countries have a very wide choice of satellite resources in various systems operating on the global market and can receive all kinds of information from a single source.

Intersputnik's principal asset is its long-standing experience while the availability of its own orbit and spectrum resource guarantees its successful development. Using this resource, Intersputnik is implementing projects aimed at procuring and deploying spacecraft in its own orbital positions to provide service in the most rapidly developing regions with growing demand for satellite telecommunications services.



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www.intersputnik.com

What's your timetable for launching these new satellites?

SK: The target set by our Board is to launch these two satellites by 2015, but we think we can accomplish this earlier. The reason is that the potential for business in these two orbital locations are really very good and there are several entities that are very interested in cooperating with us in this venture.

How different will your satellites be from those that are already out there. Will you focus on certain applications? Are you looking at Ka-band?

SK: For the first satellite, we will use the standard frequencies, that is C- and Ku-band, and the usual applications like VSAT networks and broadcasting. We have some frequency filings for Ka-band and if the market requirements justify it, we will consider it in the future, but not just now.

Apart for the two new satellite that you are planning, what else can we expect from Intersputnik?

SK: As you know, we have our subsidiary company Intersputnik Holdings which specializes in providing satellite

"...Our main focus in the next few vears is to transform the company from a buyer and reseller of satellite capacity to a real satellite operator..."

services. We will continue to support their efforts to be more successful and by that I mean increasing our presence in the countries that we currently serve by adding new services and generating more revenue.

Our main focus in the next few years is to transform the company from a buyer and reseller of satellite capacity to a real satellite operator. Which means own and operate our own satellites. In the next few years we hope to be a strong operator of our own satellites and be competitive in key regions in the world. This will be the next important step as we face the next chapter in our company's history.



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Gazprom Space Systems (formerly Gascom) – is a private commercial, non-governmental satellite operator based in Russia.

The main shareholder is Gazprom, one of the largest energy companies in the world.



Gazprom Space Systems' orbital fleet consists of two midsize satellites under the Yamal brand.

The Yamal-201 satellite operates at 90°E position. This satellite serves mainly the Russian/CIS market.

The Yamal-202 satellite operating at 49°E orbital slot has a wide service area covering most of the Eastern Hemisphere and caters to the international satellite market.

Currently, the new satellites Yamal-300K (90°E) and Yamal-401 (90°E) &402 (55°E) are under construction and Yamal-601 (90°E) is in development.

Gazprom Space Systems' ground infrastructure consists of four teleports in the city of Moscow and in the surrounding Moscow region, which are connected to the main telecom backbones by means of fiber-optic lines. The company also has a wide network of earth stations across Russia.

Now the company builds in Moscow Region a new modern Telecommunication Center aimed to operate with the whole Yamal constellation in the nearest future.

In Russia Gazprom Space Systems is not only a satellite operator but also a service provider and system integrator. Within Russia, along with satellite capacity, it provides satellite services including satellite links, video distribution, Internet access and network development and management.



While cable MSOs suffered some cord cutting during the downturn, US DTH operator DirecTV added 300,000 net new subscribers during the fourth quarter of 2010 (to December 31, 2010) and said that growth was ahead of expectations. DirecTV ended 2010 with more than 19.2 million total US customers. For all of 2010, DirecTV added 663,000 US subscribers, compared with 939.000 in 2009.

Satellite Chipping Away at Cable

Direct-to-Home Satellite Service Subscribers in the US (as of December 31, 2010)



Service Provider	No. of Subscribers
DirecTV	19.2 million
Echostar	14.1 million
TOTAL	33.3 million

Source: DirecTV, Echostar 4th quarter 2010 financial results.

Calendar of Events

March 14-17, 2011 **SATELLITE 2011**, Walter E. Washington Convention Center, Washington, D.C. USA Tel: +1-800-915-9803 or +1-508-743-0512 E-mail: register@satellite2011.com web: www.satellitetoday.com/satellite2011

April 9-14, 2011 **NAB 2011**, Las Vegas Convention Center, Las Vegas, Nevada, USA Tel: +1-800-342-2460 or +1 (202) 429-3189 E-mail: register@nab.org web: www.nabshow.com

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May 23-24, 2011, **MilSatCom Asia**, Singapore, Contact: Marta Levy Tel: +65 66 4990 95, email <u>mlevy@smionline.sg</u> web: <u>www.smi-online.co.uk milsatcomasia15.asp</u>

May 30-June 2, 2011 **SatCom Africa 2011**, Sandton Convention Center, Johannesburg, South Africa Tel: +27 11 5164059 E-mail: tatum.willis@terrapinn.co.za web: www.satcomafrica.com/

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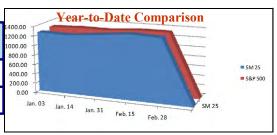
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The Satellite Markets 25 IndexTM

Company Name	Symbol	Price (Feb. 28)	% Change from 2-Weeks Ago	52-wk Range	% change from 52-wk High
Satellite Operators Asia Satellite Eutelsat Communications Hughes Communications Inc. Inmarsat SES Global FDR	1135.HK	13.10	-2.96%	10.70 - 14.90	12.08%
	ETL.PA	28.92	0.07%	24.36 - 29.70	2.64%
	HUGH	59.90	0.40%	21.19 - 64.00	6.41%
	ISAT.L	670.00	-4.22%	603.50 - 831.00	19.37%
	SES.F	18.35	-1.50%	16.36 - 19.01	3.42%
Satellite and Component Manufactur Boeing Company (The) COM DEV International Lockheed Martin Corporation Com Loral Space and Communications Orbital Sciences Corporation Co	RESEACE BA CDV.TO LMT LORL ORB	72.01 2.22 79.16 75.66 17.79	0.85% -5.53% -2.85% -4.09% 3.01%	59.48 - 76.00 1.61 - 3.78 67.68 - 87.18 31.95 - 85.16 12.66 - 19.63	5.25% 41.27% 9.20% 11.16% 9.37%
Ground Equipment Manufacturers C-COM Satellite Systems Inc. Comtech Telecommunications Corp. Harris Corporation EMS Technologies, Inc. ViaSat, Inc.	CMI.V	0.3850	5.48%	0.26 - 0.46	16.30%
	CMTL	27.05	-4.15%	20.19 - 33.38	18.96%
	HRS	46.66	-4.42%	40.24 - 54.50	14.39%
	ELMG	19.44	0.31%	13.63 - 20.58	5.54%
	VSAT	41.61	3.15%	29.98 - 46.00	9.54%
Satellite Service Providers Gilat Satellite Networks Ltd. Globecomm Systems Inc. International Datacasting ORBCOMM Inc. RRSat Global Communications Net	GILT	5.03	-4.92%	3.95 - 6.25	19.52%
	GCOM	10.65	3.00%	6.52 - 11.26	5.42%
	IDC.TO	0.4150	0.00%	0.23 - 0.50	17.00%
	ORBC	3.55	17.16%	1.64 - 3.51	1.14%
	RRST	7.44	0.13%	6.70 - 12.45	40.24%
Consumer Satellite Services British Sky Ads DIRECTV DISH Network Corporation Globalstar, Inc. Sirius XM Radio Inc.	BSYBY.PK	51.34	6.07%	30.54 - 50.80	1 23.55%
	DTV	45.97	4.81%	32.85 - 46.90	1.98%
	DISH	23.25	-0.56%	17.33 - 24.16	3.77%
	GSAT	1.32	1.54%	0.97 - 2.11	37.44%
	SIRI	1.81	7.74%	0.79 - 1.88	3.72%

The Satellite Markets 25 Index™ is a composite of 25 publicly-traded satellite companies worldwide with five companies representing each major market segment of the industry: satellite operators; satellite and component manufacturers; ground equipment manufacturers; satellite service providers and consumer satellite services. The base data for the Satellite Markets Index is January 2, 2008 - the first day of operation for Satellite Markets and Research. The Index equals 1,000. The Satellite Markets Index™ provides an investment benchmark to gauge the overall health of the satellite industry.

INDEX	Index Value (Feb. 28)
Satellite Markets 25 Index [™]	1,323.03
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