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Industry Trends, News Analysis, Market Intelligence and Opportunities

"Over the Top" (OTT) Services Take Center Stage at CES 2011

by Virgil Labrador, Editor-in-Chief

"over the top" way to start the new year (more on that later) for the broadcasting industry. The world's largest consumer technology trade show, the CES was attended by over 140,000 industry professionals from over 80 countries. No other industry show demonstrates the pulse of consumer demand for information and entertainment devices than the CES show. Past CES shows have been the launch pad for cutting edge devices such as the VCR (1970), the CD player (1981), Personal Computer (1982), DVD (1996), HDTV (1998) and 3D TV (2009), among others.

But for every cutting-edge product (photo: CES) successfully launched at CES, there the sprawling halls of CES with over 2,700 exhibitors and 250

conference sessions, so I'll attempt to summarize the key highlights for the broadcast and satellite professional.

LG demonstrated a smart phone that can display 3D video. Let's



The CES show in Las Vegas this year highlighted a dazzling display of products dominated by Tablet PCs and Internet-enabled TVs.

just say that even the manufacturers admit that glasses-free 3D TV is still a nascent stage and will not be ready for commercial he Consumer Electronics Show (CES) held in Las Vegas, rollout anytime soon. Panasonic did debut the first 3D camcor-Nevada from January 6-9 was a dazzling, one can say der, which should fuel more user-created 3D content and help 3D

TV adoption.

The consumer press has characterized the 2011 CES as the year of the "Tablet PC" and rightly so. Over 80 different new models of Tablet PCs were launched at CES to compete in a market dominated by Apple's iPad which sold nearly 12 million units in 2010. Now one might ask, why would the sales of tablet PCs be of any relevance to say, a satellite service provider? Welcome to "Television 3.0" as one speaker describe the new multiplatform media environment.

Tablet PCs unlike laptops and desktop PCs are used mainly as entertainment appliances for viewing video and other

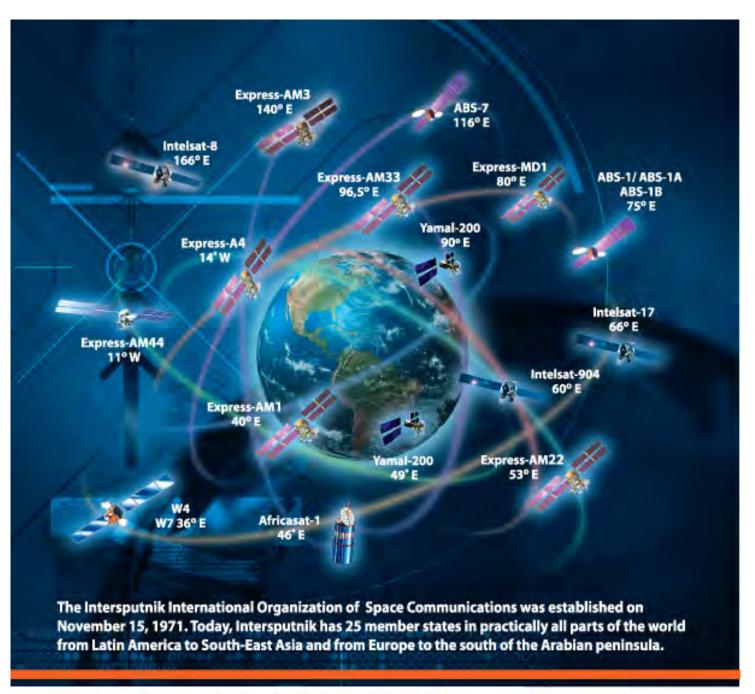
are hundreds that failed or never quite caught on among consum- content such as movies. Tablet PCs have the advantage of mobilers. This year's CES is no exception. It's easy to get lost in the ity and can be brought anywhere. However, like all the wireless glamour of celebrities and constant barrage of glitzy marketing in and interconnected devices on display at CES that even included

Continued on page 4...

Well, an industry trade show these days would not be complete without 3D TV products on display and there were no dearth of those at CES. Although the spotlight belonged to Tablets, PCs Internet-connected TVs and Over-the-Top (OTT) devices, Toshiba demonstrated its glasses-free 3D TV sets to mixed reviews.

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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 satell LLC, which is part of the Intersputnik Holding, Ltd. group, offers Russian and international telecommunications operators to operators 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 a Asia Broadcast Satellites 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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Things are Looking Up in 2011

011 may be the year we should have all had in 2008 before we were interrupted by that thing called great recession.. All signs seems to point to a banner year ahead. The credit markets are back, and companies are beginning to expand again, purchasing equipment and even hiring. If there is any doubt that the economy and consumer confidence is rebounding the Con-

sumer Electronics Show in Las Vegas, held just a few days after the new year, should have dispelled that.

In this issue, our cover story is on the CES show—not a traditional show in the satellite trade circuit, but one that is becoming more and more important to satellite service providers as consumer demand for bandwidth will be the key driver for growth in the telecommunications industry in the new decade.

2011 also marks our fourth year of publication. We couldn't have reached this important milestone with you our readers and the support of our advertisers and sponsors. We are very excited about our plans for the coming year which will see us have a bigger presence in the major trade shows. Where we will be introducing new products and services. Watch out for it.

If you will be at the Cabsat/ Satellite MENA show in Dubai next month, do drop by the Satellite Markets and Research booth # S1-24. I will also be moderating a session at the GVF Satellite Summit at Cabsat on February 9. This is a free event, open to everyone so please make it a point to attend the sessions. For more details on the program, see the article on page 13 by Martin Jarrold of the GVF.

We look forward to another year of serving you and the industry and here's hoping this year will bring more success to everyone.

Vigil Labor

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CES 2011.... from page 1

smart home appliances such refrigeraspectrum to get connected. And that service providers come in. Terrestrial delivery alone will not be able meet the video and data and hybrid solutions requiring some satellite component might be necessary. Or, at least, that what the satellite service providers, who are paying a lot closer attention to developments at the CES in recent years, ting the stage for intense competition in nomenon is a cause for concern for Diare hoping.

The Chairman of the US Federal Com- ciates. munications Commission Julius Gena-

of this industry and our innovation future depends on whether our government acts quickly to unleash more spectrum, the oxygen that sustains our mobile devices."

The other key products that dominated the spotlight in this year's CES are Internetconnected TVs and Over-the-Top (OTT) devices such as Apple TV, Google TV and Roku, among others which connects TVs to the internet to en-

flix, Vudu or iTunes. This is definitely connected devices will ship globally in not your father's TV. Traditionally 2011. This includes a forecast of 226 viewed as a passive device that requires million fixed entertainment devices little interaction, today's television is an such as TV sets and game consoles, interactive device that require a more over 1.6 billion portable CE such as "immersive experience."

OTT devices have become very popular dential gateways. over the last year and will only get bigger considering the connectivity of The popularity of OTT devices in the home entertainment and portable CE US has led to a phenomenon called devices, according to IMS Research. "cord-cutting" where consumers have Consumer demand for online video been cancelling their cable and satellite content will motivate sales of Internet- subscriptions and relying on an OTT connectable TV devices to nearly 350 device or an "Internet-enabled" TV to million units worldwide by 2015, set- view videos.

tors, tablet PCs need access to the radio "... The consumer electronics industry is going usually means they need bandwidth and wireless, and the future success of this industry lots and lots of it. That where satellite and our innovation future depends on whether our government acts quickly to unleash more large bandwidth demands of mobile spectrum, the oxygen that sustains our mobile devices..."

—FCC Chairman Julius Genachowski

app development, international market rect-to Home (DTH) satellite service according to research firm Parks Asso- providers and cable providers.

chowski summed it up best, saying In a recently published study, to consumer electronics devices which "The consumer electronics industry is "Convergence in Home Entertainment enable access to interactive services and going wireless, and the future success and Portable CE Markets", IMS Re- over-the-top (OTT) content," says ABI



able access internet video suc has Net- search forecasts that over 2.1 billion boxes act as gateways with multiple smartphones and tablets, and 268 million home network devices such as resi-

The cord-cutting phe-

"Set-top boxes are slowly catching up

Research practice director Jason Blackwell. "In the US, operators are favoring their own 'TV Everywhere' platforms, including Comcast's Xfinity, Dishonline.com, and U-verse, rather than supporting OTT video services. In Europe, Project Canvas and HbbTV are more open interactive TV platforms.

"More processing power is being tested in set-top boxes, including early tests of an Intel Atom-based platform. These high-powered

tuners and support multi-room viewing with thin clients on other TVs in the household," says ABI Research senior analyst Sam Rosen. "'No new wire' home networking standards are enabling deployment of these gateway devices."

Perhaps to keep on top of the competition, EchoStar Advanced Technologies., a wholly owned subsidiary of US DTH operator EchoStar Corporation, announced at the CES that it has acquired assets of Utah-based Move Networks, a provider of advanced solutions for large scale streaming of video on the Internet.

However, cable and satellite operators "But this is not highly likely as they ays such as Windows Live TV and Micording to a recent report by Moody's ming content, which OTT providers pated launch of the OTT device Micro- Apple and Google and even cable and don't have either the rights to popular soft TV to compete with Apple and satellite operators, the addition of intershows and events nor the expertise to Google TV, which was predicted by net video delivery to gaming devices is and cable networks that invest heavily CEO Steve Ballmer in his key note at environment that will require a lot of in exclusive content rights to popular CES used the opportunity to announce bandwidth. programming and sporting events that the expansion of the over-the-top qualicommand high viewership ratings will ties of the Xbox Live console with the And where there's bandwidth demand, be protected from online competition addition of Kinnect for Netflix and thee should be opportunities for satellite over the next 10 years," wrote Neil Be- Hulu in the US market. Microsoft may service providers. gley in the Moody's report, "2020 Vi- be cautiously getting into the OTT marsion: US Telecom, Media and Technol- ket given its previous unsuccessful forogy."

The key is whether Google or Apple will be willing to make the financial investment to compete for sportscontent rights and invest in production to put their own programming on the web in competition with the traditional content companies according to Begley.

need not worry about competition from would need to create or buy a lot of crosoft Web TV. OTT devices for at least a while, ac- programming to be successful," he said.

Although not perhaps as earthshaking Investor Services. The key is program- Perhaps, that is why the much antici- as launching a product to take on both develop quality programs. "Even with most analysts will occur at this year's an indication of where things are headthe advent of Internet TV, the broadcast CES did not happen. Instead Microsoft ing—an interconnected multiplatform



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 covering the industry for various publications since 1998. Before that he worked in various capacities in the industry, including a stint as marketing direc-

tor for the Asia Broadcast Center, a full-service teleport based in Singapore. He can be reached at virgil@satellitemarkets.com

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■ A summary of the most important news and developments from January 1-15, 2011.

MERGERS AND ACQUISITIONS agreement for the provision of two advices, managed satellite and terrestrial

Echostar Acquires Assets of Move Networks

provider of advanced solutions for large of the market share in the country. scale streaming of quality video on the Internet.

Move Networks has a global resume of customers who are service providers and content owners in the United States, Germany, Latin America, and the Middle East. Financial terms were not disclosed.

Grass Valley Acquired by Francisco Partners

Nevada City, Calif. Jan. 3- Technology Investment Firm Francisco Partners has completed its acquisition of broadcast specialist Grass Valley from Technicolor.

Francisco Partners will hold complete ownership of Grass Valley's broadcast and professional businesses and inherit camera, content repurposing, editing, master control, modular, news production, production automation, production switchers, routing, and video servers product lines.

Paris-based Technicolor is a 95-yearold film-services company. The sale was part of a restructuring for that company.

CONTRACTS

Sun Direct Adds Two Ku-**Band Transponders on MEASAT**

Kuala Lumpur, Jan. 12-MEASAT Satellite Systems Sdn. Bhd. signed an

to four transponders.

Las Vegas, Nev., Jan. 6-At the CES Sun Direct is one of the largest DTH show, **Echostar** announced the acquisi- operators in India with a customer base tion of Utah--based Move Networks, a of 5.13 million which contributes 21%

BP Shipping Selects CapRock for Fleet-wide VSAT Service

Houston, Tx. Jan. 11- Harris CapRock Communications has signed a 39-month contract with BP Shipping Limited to deploy Harris Caprock's SeaAccess solution onboard its global tanker fleet. SeaAccess' turnkey VSAT (Very Small Aperture Terminal) services will enable BP to extend its corporate IT network and applications to its vessels and provide attractive crew welfare solutions.

SeaAccess will extend BP's corporate office capabilities to each vessel, enabling ship captains to send real-time reports on vessel operations, logistics and routes. The service will also provide crew welfare communications, specifically supporting the crew's heavy telephone traffic.

Globecomm Awarded **Managed Services Contract** Valued at US \$ 14 mil.

Hauppage, N.Y., Jan- 3-- Globecomm The vehicle was recently used to sup-Systems Inc. has been awarded an eight month managed services contract from a government prime contractor valued at US \$7.3 million. The agreement includes two six-month options which if exercised would bring the total contract value at up to US \$14.5 million.

Under the terms of the contract, Globecomm will provide engineering ser-

ditional Ku-band transponders to Sun communications connectivity, and life-**Direct.** This agreement expands Sun cycle support services to the prime con-Direct's capacity on the MEASAT fleet tractor who is responsible for the overall deployment of a communications network.

Spacenet Wins Texas State Satellite Services Contract

McLean, VA, Jan. 4—Lubbock County Texas is utilizing Spacenet's high-performance satellite communications services and equipment to support critical communications across the state. Spacenet Inc., Lubbock County is using Spacenet's transportable antennas and Connexstar S2 satellite services, based on the SkyEdge II VSAT platform, to provide emergency communications as part of the county's instant command post.

Lubbock County integrated Spacenet's satellite equipment and services into its mobile command vehicle that is used across the state to maintain data, voice and video communications during emergency situations. The vehicle is one of two primary mobile communications platforms within the region and it can be utilized as an alternate dispatch point for its jurisdiction in the case of an outage, helping to enable the county to operate normally. The system supports voice over IP (VoIP) through telephone systems that connect back to Lubbock County's telephone numbers.

port a community in Texas that lost its connection to the 911 system due to a cut in the fiber optic lines. The mobile command vehicle rolled into the community and within an hour was able to provide 911 access through its VoIP phones. The fiber optic lines were not restored until another six to eight hours

EXECUTIVE MOVES

Harmonic Promotes Mark Carrington

Inc. announced that Mark Carring-

ton, previously Vice President of Sales for the Harmonic-branded product sales, has been promoted to Vice President of Worldwide Sales. In this expanded role, Carrington will be responsible for the entire sales organization and the complete product line.



Carrington

Separately, the company also announced that Suresh Vasudevan, president of Omneon at Harmonic, has deanother opportunity.

IDC Announces New Executive Team

Kanata. ON, Canada, Jan. International Datacasting Corpora- Wideband Global SATCOM (WGS) tion (IDC) announced the formation of an Executive Management Team, along with new appointments in key executive positions.

IDC announced the appointment of SATCOM terminals. Rudi Polednik as Vice President of Global Sales and Marketing, Fred Kokaska as Vice President, Product Management and Steve Miller as Vice President of Business Operations said. They join IDC President and CEO Fred Adamou on the IDC Executive Management Team along with Cory Garbolinsky, VP of Finance and Acting Chief Financial Officer, and Gary Carter, Vice President and Chief Technology Officer as well as VP, IDC Systems Group.

Argiva Appoints New CEO

Winchester, UK, Jan. 11-Media services provider Arqiva, has appointed John Cresswell as Chief Executive San Jose, Calif., Jan. 13 -- Harmonic Officer. Cresswell, the former Chief Operating Officer and interim CEO of ITV, replaces Tom Bennie who is stepping down after 32 years with the organization.

> Cresswell will take up his new role on Janaury 17. Cresswell will assume responsibility for an organization with

turnover approaching £850 million, with over 2000 employees based at around 80 locations in the UK, Europe and the USA, as well as a range of critical national infrastructure projects.



Cresswell

Creswell graduated from the University of Keele in 1983 with a BSc in Economics and Politics, and is a member of the Institute of Accountants of England and Wales.

New Products

Comtech Xicom Introduces New 50-Watt Solid State X-Band Satcom BUC

Santa Clara, Calif., Jan. 11- - Comtech Xicom Technology, Inc., introduced a new compact and lightweight solid-state X-band block up converter (BUC) decided to leave the company to pursue signed for high data-rate satellite communications uplinks.

> The Xicom Technology, Model XTS-50X1-B1 X-BUC, is the perfect solution for commercial and military users ready to take advantage of new 4- X-band capacity on XTAR and satellites. Higher power in a compact package enables system integrators to offer much higher data-rate uplinks with rugged, compact, transportable,



The **X-BUC** provides 50 Watts of 1 dB compressed output power in a self-cooled, feed-mountable, package specifically designed to operate in harsh environments and meet the stringent RF requirements of today's X-band systems.

Godard, Executive Chairman Adam This high performance design provides more than 32 Watts of linear output power as defined for the WGS system, making it the most powerful 10.5 pound X-band unit anywhere. The new X-BUC, is packed full of performance features including temperature compensation, gain control, harmonic filtering, and an output isolator. All this comes in a compact outdoor unit weighing 10.5 pounds and measuring only 10.58 inches long x 5.68 inches high x 4.43 inches high.



Key industry trends and opportunities.

Global TV Market Rebounds in 2010

After stagnating in 2009, the World TV market rebounded in 2010 growing by 7.1 percent

Paris, January 12, 2011—The television industry is back on a growth path, with a global market of EUR 289.2 billion, which marks a 7.1% increase compared to 2009., according to the latest World Television Market Report by IDATE. This report analyses the overriding trends and changes taking place in the markets around the globe. It explores the driving forces behind the market's growth and transformation, including an examination of the chief market trends, plus volume and value forecasts up to 2014 by geographical area and by country.

"2010 has been a flourishing year overall for the audiovisual industry", says Florence Le Borgne, Director of IDATE's TV & Digital Content Business Unit. "Most of mature market, Japan was back on an upwards trajectory in the mature markets are reporting encouraging growth rates, in particular thanks to increasingly higher advertising revenue. In the meantime, the pay-TV sector has consolidated its new status as the industry's most important source of income, generating 48% of the sector's revenue in 2010 versus 43% for advertising. These percentages should remain more or less stable in the coming years."

IDATE estimates that the worldwide television market in 2010 was worth 289.2 billion EUR, rising 7.1% compared to 2009. The industry is therefore back on a growth path after a year of relative stagnation – reporting growth of a mere 0.6% in 2009.

the world with a turnover of 103 billion EUR in 2010, rising 4.5% in a year after posting a slight dip (-0.7%) in 2009. The North American region's share of the global market declined to 37% in 2010 compared to 38% in 2009. As the second largest regional market, Europe had a turnover of 84.4 billion EUR in 2010, a rise of 6.6% compared to 2009. The United Kingdom, Germany and France are the heavyweights in the region and together represent more Up until 2008, advertising was by far the primary means of than half (56%) of the region's revenue. While the United Kingdom and France saw an increase of 6.2% and 5.3%, respectively, Germany is making slower progress (1.2%). The Europe share of the global market has stagnated at 29%

Asia/Pacific recorded a great growth in its TV market of 9.1% in 2010. Its share of the global market rose by 0.4 points to 22.3%. The heavyweights in the region, Japan, 49% of revenue of the worldwide television market by India and China, experienced varied results. Despite being a 2014.

"...the consolidated its new status as the industry's most important source of income, generating 48% of the revenue in 2010 versus 43% for advertising..."

2010, with TV revenue increasing by 3.9%, while China was reporting a 12.2% increase, which is more than two and a half times the 2009 growth rate, and India continued to enjoy a solid momentum, reporting 13.3% growth in 2010 compared to 15.4% the year before.

Latin America displayed a good level of growth in its TV market, with an increase of 12.8%. Its market share in the worldwide market is still small (7.8%), but it is growing every year (6.4% in 2007). Brazil is the largest market in Latin American TV and alone makes up 44% of the market. The smallest regional market, Africa/Middle East displayed the greatest growth in its TV market, with an increase of 16.9% compared to 2009. Its share of the global market is The United States remains the largest television market in increasing to 3.6% in 2010, compared to 3.3% in 2009.

> The global TV market's growth in 2009 is due chiefly to a rise in pay-TV revenue (+8.4%), with ad revenue rising at a lesser rate (+5.8%). Public financing did rise by 6.9% in 2010 but still accounts for less than 10% of the global television market's income.

> funding for the industry, generating about 47% of the sector's revenue, compared to nearly 44% for paid television and 9.4% for public funding. The situation began to reverse in 2009 and, in 2010, paid television accounted for 48% compared to 43% for advertising. In the years to come, IDATE predicts this trend will become more pronounced and estimates that paid television should generate more than

DisplaySearch Forecasts 91 Million 3D TVs by 2014

Santa Clara, Calif., January 4, 2011—The availability of Despite this, competitive pressures in the industry are rapidly 3D content will remain the greatest determinant of the value making 3D a compulsory feature. DisplaySearch forecasts of 3D TVs to consumers – and as a result its achievable pre- that nearly 18 million 3D sets will be shipped in 2011, rising mium in TV sets. 3D TVs were launched with much fanfare to over 91 million in 2014. at IFA 2009, but a year ago at CES, the first real products reached the market. Since then, shipments have made steady, although slightly disappointing, progress. Global shipments in 2010 were expected to total 3.2 million worldwide, according to the DisplaySearch Quarterly TV Design and Features Report.

"TV manufacturers really got ahead of themselves in 2010, and they forgot that a TV is a tool to watch content," said Paul Gray, Director of TV Electronics Research at Display-Search. "People will only buy a 3D TV if there is enough content to watch, and in 2010, there simply was not enough 3D content available. As a result, only 4% of TVs 40" and larger had 3D capabilities."

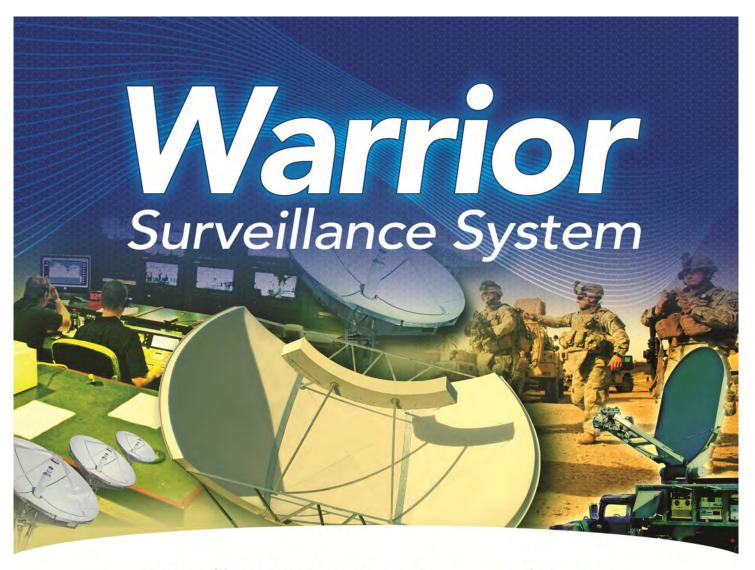
Other key findings from the Q4 report include:

- In the global broadcast environment, South African countries have opted to jump straight to the latest DVB-T2 broadcast standard. DisplaySearch forecasts that almost 20 million TV sets will ship with DVB-T2 decoding in 2015.
- 21% of all TVs shipped in 2010 are forecast to have internet connectivity. This category is forecast to grow to over 122 million in 2014, with emerging markets providing a significant portion of the growth as broadband adoption surges.

THE ART OF INTEGRATION

PICTURE THE POSSIBILITIES





Satellite Monitoring and Law Enforcement Tools

- Geo-Location
- RF Analysis and Recording
- RF Fingerprinting
- Legal Intrution (LI)

- Full Arc Monitoring
- Video, Voice and DPI Processing
- Advanced Analytics



Piercing the Fog of War

Globecomm and the NATO Force Tracking System in Afghanistan

he North Atlantic Treaty Organization (NATO) was created in 1949 to safeguard the freedom and security of its member countries by political and military means. Nearly 60 years later, it found itself with a new mission: helping to establish the conditions in which Afghanistan might enjoy –after decades of conflict, destruction and poverty– a representative government and self-sustaining peace and security.

The International Security Assistance Force (ISAF) mission in Afghanistan would be challenging for any military organization. It is doubly so for a force composed of units speaking different languages and using different equipment. Simply achieving what the military calls situational awareness - knowledge shared by commanders and troops about the battle space - presents a challenge.

NATO's Allied Command Operations in Casteau, Belgium directs ISAF operations. But a separate group – Allied CommandTransformation (ACT) in Norfolk, Virginia, USA – focuses on preparing NATO for its future. To support the ISAF, ACT began working with contractors to specify and design a Force Tracking System (FTS) that could be used by all

Photo: Globecomm NATO units in Afghanistan to share information and prevent friendly-fire casualties. The result was a first for NATO: a standard called the NATO Friendly Force Identifier (NFFI). It defined how existing FTS used by some nations would interoperate with each other and with new systems to be developed by NATO. Development of the standard was no laboratory exercise. There was enormous pressure to develop a unified system that would protect soldiers and make operations more effective. The requirement went out to contractors in 2005, and after a competitive bidding process and contract award by the NATO Consultation, Command and Control Agency (NC3A), the standard was ready in December 2006. In between were countless technical meetings with contractors as well as ongoing design and testing.

The original bidding was won by Insight (now Comtech Mobile Data Corp) and EMS Technologies of Canada. The re-

quirement called for vehicle-mounted systems with visual displays using GPS to track their own locations. The systems would also share this information with field commanders and each other. Based on the NFFI standard, the system would fully interoperate with the FTS units brought into Afghanistan by troops from the mission's Participating Nations.

Visual displays in each vehicle and in command centers used a common database to represent friendly forces on dynamic maps. The plan also called for equipping the vehicles and command centers with keyboards for the exchange of text messages.

The technology looked promising. The problem was to deploy it in Afghanistan, integrate it into vehicles and keep it all operating in one of the world's toughest environments.

The terrain of Afghanistan is incredibly mountainous, making line-of-sight communications almost useless. It is dry and dusty, and as soon as the dust is touched, it rises into the air and seeps into every piece of equipment. The units of the Participating Nations also rotate out on a regular basis, which means a continuous need to retrain people and reinstall and recommission systems.



At that time, a team of Globecomm engineers and Afghani technicians was already in-country building and maintaining a national mobile phone network and private networks for the Afghan government.

In June 2006, Globecomm won a new competition organized by the NC3A to manufacture the FTS vehicle systems, integrate ground systems and a control suite, and provide installation, training and maintenance for NATO forces. The company shipped the first suitcase-size units to Afghanistan by October. After systems integration, antenna commissioning and terminal testing, Globecomm had the first units in vehicles by the end of November, even before the final NFFI standard was approved.

"That's when things began to get interesting," said Globecomm vice president Paul Knudsen. "There were lots of technology challenges. The complexity of the satellite and

Satellite Executive Briefing January 2011 1

Case Study

terrestrial link was unique. Signals from the FTS units were relayed via satellite to Europe and were then backhauled terrestrially to North America and transmitted to the ISAF HQ in Afghanistan. That's where the control suite compiled and processed the data, which was transmitted back through the same chain to the individual terminals in the vehicles.

Mounting the terminals in the vehicles had its own challenges. "We couldn't drill holes or modify the vehicles in any way," said Knudsen. "Some vehicles were hardened against explosives. Drilling through the exterior or removing protective plates to run cables would put soldiers' lives in danger. All the terminals were going to be removed at the end of their tour anyway, so we decided on a temporary magnetic mounting of the terminals. But a lot of the vehicles are Kevlar. Magnets won't stick to them, and we had to come up with an adaptor plate to be glued on the vehicle. Then it became clear that the laptops we originally supplied were too large, so we switched to tablet systems. The tablets were smaller and easier to use and store."

Some problems did not reveal themselves until the troops were in the field. "The enemy was using radio frequencies very close to the band our transceivers used," Knudsen added. "The electronic countermeasures (ECM) meant to jam them were knocking our systems off the air as well. We solved that by shielding the terminals from the ECM."

On any given day, there are hundreds of vehicles using the terminals. "When a unit heads into the field," said Murray, "they set up a user group of all the terminals. On the display, all of those vehicles are marked with the same color. Since it's a GPS system, they can plot their route on the display and use the navigation system to stay on course regardless of conditions. Depending on what they need, they can see the whole battlefield or set the display to 'center on me.'

The command post has the same information in real time, and either the troops in the field or command can mark hazards like IEDs as they are discovered. We were even able to supply dismountable handheld units. Soldiers can leave their vehicles and still have access to the system."



Industry Events

Drivers and Dynamics, Applications and Technolgies

Satellite and the MENA Horizontal and SE Asia Vertical Markets

by Martin Jarrold Director of International Programs, GVF

eaders of this column who will be attending the CABSAT MENA & Satellite MENA 2011 exhibition at Dubai International Convention & Exhibition Center (DICEC) over 8th to 10th February will be interested to know that the Editor-in-Chief of this very publication will feature in a prominent role during one of the conferences embedded within the event.

Virgil Labrador, a good friend, as well as a satellite industry colleague, will take the role of one of the Moderators during on 9th February in a dedicated meeting area of the Trade Center Arena area of the **Satellite MENA** exhibition space.

As the Chairman of the Summit I am grateful for the assistance of Virgil, as well as that of the other two Moderators contributing to the efficient running of the Summit program -Stéphane Chenard, Senior Analyst with Euroconsult, and This Summit program will incorporate a wide range of hori-Claude Rousseau, Senior Analyst with NSR. Their respective expertise will be a great asset to the event and bring invaluable additional professional insights for the appreciation of the Summit attendees.

Registered attendees of the CABSAT MENA & Satellite MENA 2011 exhibitions will be able to attend the Summit for the **Summit** from some of the leading companies in the field of satellite communications solutions. At the time of writing this column those supporters are O3b Networks (Gold Sponsor) and Eutelsat Communications (Bronze Sponsor), with others expected to join the line-up in the final As of 14th January key highlights of the **Summit** program weeks before the Summit.

search (NSR).

For 2011, the **Summit** (which is a regular annual feature of the CABSAT MENA & Satellite MENA landscape) is entitled 'New Drivers, New Dynamics: MENA Communications Markets, Applications & Technologies'. Organized by GVF - in partnership with Dubai World Trade Centre (DWTC) and DICEC – the **Summit** is part of the exhibition KNOWLEDGE EXCHANGE & CABSAT ACADEMY. It will provide Satellite MENA exhibition attendees with a value-added discussion forum within which key points on The Regulatory Landscape in 2011 - MENA & the Wider the Middle Eastern and North African satellite and broader World with Tariq Al-Awadhi, Executive Director Spectrum





the MENASAT @ Satellite MENA Summit taking place telecommunications agenda will be investigated in depth, with the content providing multiple opportunities for participation in a high-level conference-style dialog, and enabling all participants to further elevate their profile across the Satellite MENA exhibition environment and the regional communications solution marketplace.

zontal and vertical market-related themes, the most up-todate information about which can be found of the GVF website's dedicated Summit page at www.gvf.org/satellite/ index.cfm?item=mena2011. At the time of preparing this column the "Call for Papers" is still open to the satellite industry, in order that the very latest industry initiatives, including details of cutting-edge product provisions and serfree-of-charge, thanks to the generous sponsorship support vice deliveries, are reflected in the Summit program. Proposals for presentation themes/topics may still be submitted to the author, and Chairman of the Summit at martin.jarrold@gvf.org.

will include:

Also generously supporting the Summit are its Research MENA Communications Markets - The Landscape & Partners, Arab Advisors Group, and Northern Sky Re- "Visionscape": Understanding Today's & Forecasting Tomorrow's Regional Growth Drivers with Jawad Abbassi, Founder & General Manager, Arab Advisors Group; and Claude Rousseau, Senior Analyst, NSR

> Satellite in MENA: "The Future is Ka"... with Laurent Roussel, Managing Director, IMEA, Newtec; Christian Patouraux, Chief Product Development Officer, O3b Networks; and, Dr. Mohaned Juwad, Consultant, Avanti Communica-

Communication & Media Commission, tions on the Move | Paradigm Shift GVF will present the MENASAT Case cess Partnership Abu Dhabi office; Carrier & Cutting-Edge Progress in to the GVF Dubai programme for 2011. (Satellite Telecommunications Counsel, SSD

Mitigating Disaster, Promoting Development, Driving Sustainability:

GVF Disaster-**Preparedness Initiatives & Bevond** with Riaz Lamak, President & Director on the Board, Mahdi **Bagh Computers** Pvt Ltd

FSS, BSS & MSS in MENA: Future Satellite Transponder Supply & Demand Dynamics with Claude Roussau, Senior Analyst, NSR

MIN Dkit

DVB-S2: Approaching the Limit with Jack Buechler, Regional Vice President Sales, EMEA, Advantech Wireless

ArabSat Initiatives to Combat RF Interference with Yasir Hassan, Director, Transmission Operations, ArabSat

Signal Interference Mitigation Strategies: Enhancing the Installer Training Horizon with Mazen Nassar, Managing Director, MenaNets & GVF Installation Trainer, MENA

the Hybrid Opportunity: Evolving Re- begins when the exhibition doors open gional Broadband Satellite-Wireless at 10:00am and the program com-Integrated Solution Deployments | En- mences at 11:30am.

ing DSNG Paradigm. Other companies dition, Advantech Wireless will be planning to participate will additionally bring speakers from Eutelsat, iDirect, the development, application, and de-SES World Skies, and Thurava.

The Summit will close with a session And "Vertically Polarized"... presented by the author: Oil, Gas & Mining: Leveraging Extraction Industry Communications Imperatives for Corporate Social Responsibility Obligations & "Community Engagement" - Challenging the Digital Divide.

Other topics will include: Building-Out Free-of-charge Summit registration

& International Affairs, TRA, UAE; hancing Web Mobility: Satellite- On 10th February, also embedded Ahmed M. Alomary, Commissioner, Wireless Access to Multimedia Solu- within the Satellite MENA exhibition, Iraq; Zeina Mokaddem, Director, Ac- among Paradigm Shifts: Carrier-In- Studies Portfolio, a new introduction Kumar Singarajah, Chair, SAP-REG Modem Design | Satellite Broadband Following the GVF Summit of 9th Feb-Plan-Regulatory Solutions for Dedicated Markets: Mid- ruary – where, as indicated above, the Working Group); and, Carlos Nalda, dle East Maritime Broadband Commu- emphasis of discussion is topic-based nications & the Global Context of a and thematic – the 10th February Case Bandwidth Evolutionary Transition | Studies Portfolio is intended instead to New Technology to New Content: provide companies with a platform to Auto-Deploy Platforms & the Chang- promote their product and service offer-

> Through the use of Case Study examples, speakers will be invited to present details of their company's activities in any part of the Middle East North Africa communications market.

As at the time of writing, Case Study Portfolio contributions are scheduled to be made by O3b Networks and Eutelsat. In ad-

offering a detailed tutorial session on ployment of DVB-S2 technology.

Shortly after the Dubai events, the GVF **Broadband Maritime Series** will hold its fourth international conference in Singapore. The vertical marketfocused 'Broadband Maritime Offshore & Oceanic 2011: Information & Communications Networking Mobility South East Asia' conference -BMSEA 2011 - will take place at the Marina Mandarin hotel on 15th & 16th February 2011.

will cover the following key themes: Maritime Communications Systems & Sanders & Dempsey (SSD). The Maritime Communications Mar- the Broadband Environment | Navigaketplace | Segmenting the Maritime tion & Weather Data Streams: Real- For further information regarding the Communications Sector | Spectrum time Integrated Broadband Access cations Platform: Ocean-Going ICT | Factor: Matching Evolving Technolo-Communications Networking for Effi- gies & Satellite Link Efficiencies. cient Fleet Management | Regulatory of Communications Inshore & on the Companies in the speaking line-up for time Industry ICT: The Satellite Com- clude (in alphabetical order): C2Sat; Bridge: Data Capture, Analysis & Re- Gilat Satellite Netporting Systems | Maritime Satcoms works; GVF Terminal Equipment: Challenges & Developments | Maritime Antenna Technology: Stabilized Design Newtec; Northern Parameters & Case Studies | GVF In- Sky Research staller Training for the Maritime Com- (MTN; Orange;

The overall program for BMSEA 2011 munications Market | Safety & Distress SingTel; SpeedCast; and, Squire, Shift: Deployment of New Global Crew Welfare & Information Technol-Broadband | The Maritime Communi- ogy | The Acceleration & Compression

High Seas | Cloud Computing & Mari- Singapore, at time of writing, will inmunications Interface | ICT on the Cobham; Comtech EF Data; Codan;

Supply-side Training Division; Hughes; Inmarsat;

BMSEA 2011 program, and the availability of speaking opportunities, please contact me at

martin.jarrold@gvf.org.

Alternatively, visit the conference web page at:

www.ukemp.co.uk/4th.BMSEA.Sg.20 11/.



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Cabsat 2011 Puts Spotlight on Booming Middle East Market

Cabsat/ Satellite MENA 2011 Dubai, UAE, February 8-10, 2011

broadcast market to be US \$ 1.9 billion, thousands of profes- Manager, Arab Advisors Group and Tariq Al-Awadhi, Exsionals from the broadcast and satellite sectors are expected ecutive Director Spectrum & International Affairs and the to converge on the region's definitive platform for sourcing Telecommunications Regulatory Authority (TRA) among and networking, CABSAT & Satellite MENA in February others. Session topics will include MENA Communications 2011.

The trade only events, held from the 8 - 10 February at the Dubai International Convention and Exhibition Centre, deliver over 750 companies from 50 countries as well as high level networking opportunities and knowledge exchange. The recently launched CABSAT Academy sponsored by twofour54 Tadreeb, provides one such platform where thought leaders from across the Middle East share best practice, discuss the latest trends and exchange ideas.



The Middle East/ North Africa market is set to take off this yer with the entry of new Ka-**Band satellites.** (photo courtesy of Cabsat)

Part of the CABSAT Academy, the CABSAT Broadcast Conference is produced by the Middle East Communications Industries Association (MECIA) under the chairmanship of the Executive Director, Kevan Jones. Supported by Asia- partners and sponsors like MECIA and twofour54 - we have Pacific Broadcasting Union (ABU) and International Asso- made some very exciting developments in CABSAT which ciation of Broadcasting Manufacturers (IABM), the sympo- will ensure it is a must-attend event for everyone from board sium includes highly focused presentations on some of the level down." most interesting keynotes from the 2010 IBC Conference, giving regional delegates a chance to debate the key issues of CABSAT & Satellite MENA 2011 will run from 8-10 Februthe day.

Main topics being discussed include Tools and Technologies for Content Creation in the Middle East, Managing Content and Broadcast Workflows from industry giants such as BBC and INA.

and is presented in conjunction with industry body, Global come first served basis. Vsat Forum. The programme delivers dedicated training www.cabsat.com

ith a recent report by IABM (International Asso- workshops, masterclasses and vendor presentations of the ciation of Broadcast Manufacturers) estimating latest technology. Key speakers at these sessions will include the total value of the Middle East & Africa's international visionaries Jawad Abbassi, Founder & General

> Markets and the MENA Regulatory Landscape in 2011.

For the first time in the Middle East, the Sony sponsored HD/ 3D Chillout Zone will feature the latest examples of this renowned technology in action, alongside the Interactive Camera Workshops from 3ality and Red Camera.

Alongside all these opportunities to share experiences and knowledge, the ITP Digital Studio Awards will celebrate the best achievements in the industry with a prestige gala evening on the first day of the event.

"There is no doubt that the electronic media industry in the Middle East and North Africa is creatively rich and commercially dynamic," said Trixee Loh, Senior Vice President Exhibitions and Events, Dubai World Trade Centre, organiser of CABSAT and Satellite MENA. "By working closely with a thriving industry – and with our

ary 2011 at Dubai International Convention and Exhibition Centre. The CABSAT Broadcast Conference costs AED 300 per session in advance until 1 February and AED 350 per session onsite during the show. Professionals interested in attending can log onto www.cabsat.com to register. The GVF Satellite Forum conference is free, however delegates wishing to attend are recommended to register their interest GVF Satellite Summit in turn supports the satellite sector in advance as numbers will be limited and issued on a first For more information go to:





www.satellitemena.com

SATELLITE PLATFORM

8 - 10 February 2011

Dubai International Convention and Exhibition Centre, UAE

Firmly established as the definitive satellite event for the MENASA region, Satellite MENA continues to expand its reach, both geographically and in terms of the sectors it covers. Satellite MENA encompasses broadcast, telecoms, oil and gas, NGOs and military applications, and features a vast array of leading global companies supplying technology and services to these sectors.

As the pivotal event for the satellite industry in the Middle East, Satellite MENA is the natural choice for any company wishing to target end-users of this technology.

SAVE THE DATE AND BOOK YOUR SPACE NOW!

For more information, please contact us: Satellite MENA Team Dubai World Trade Centre LLC, PO Box 9292, Dubai, UAE

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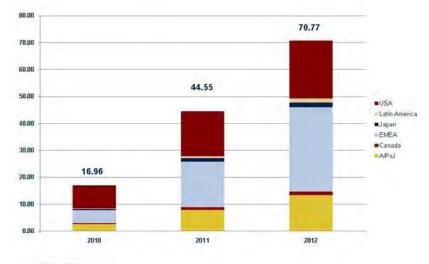
Global VSAT Forum of Satellite ils International d Trade



Tablet PCs are all the Rage at CES 2011

W.W. Media Tablet Shipments

Tablet PCs were all the rage at the recent CES 2011 in Las Vegas. Tablets are projected to reach 70 million in 2012 according to IDC. As these Tablet PCs are mainly mobile devices, the increased use will only spur demand for more bandwidth.



Source: IDC

Source: IDC.

Calendar of Events

February 8-10, 2011, **CABSAT/Satellite MENA 2011**, Dubai, UAE, Tel. +9714-3086077/6915 e-mail: cabsat@dwtc.com web: www.cabsat.com

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

May 30-June 2, 2011 **SatCom Africa 2011**, Sandton Convention Center, Johannesberg, South Africa Tel: +27 11 516 4059 E-mail: tatum.willis@terrapinn.co.za web: www.satcomafrica.com/

June 21-24, 2011 **CommunicAsia, 2011**, Singapore, Marina Bay Sands Convention Center, Tel: +65-6233-6638 E-mail: vw@sesallworld.com web: www.communicasia.com

June 21 -24, 2011 **BroadcastAsia2011**, Singapore, Suntec Convention Center, Tel: +65-6233-6638

E-mail: ck@sesallworld.com web: www.Broadcast-Asia.com



Riverside, CA 92502 USA

www.de-ice.com

The Satellite Markets 25 IndexTM

Company Name	Symbol	Price (Jan 14)	% 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 ETL.PA HUGH ISAT.L SES.F	13.50 27.36 45.16 638.50 17.63	-0.15% -0.11% 6.64% -5.20% -1.73%	9.80 - 14.90 22.91 - 29.70 21.19 - 45.51 603.50 - 831.00 15.42 - 19.01	9.40% 7.88% 0.77% 23.16% 7.23%
Satellite and Component Manufactu	rers				
Boeing Company (The) COM DEV International Lockheed Martin Corporation Com Loral Space and Communications Orbital Sciences Corporation Co	BA CDV.TO LMT LORL ORB	70.07 2.27 74.50 78.93 18.11	5.53% 5.09% 6.63% 2.51% 4.86%	57.14 - 76.00 1.61 - 3.94 67.68 - 87.18 26.35 - 85.16 12.66 - 19.63	→ 7.80% → 42.39% → 14.54% → 7.32% → 7.74%
Ground Equipment Manufacturers					
C-COM Satellite Systems Inc. Comtech Telecommunications Corp. CPI International, Inc. EMS Technologies, Inc. ViaSat, Inc.	CMI.V CMTL CPII ELMG VSAT	0.3050 28.21 19.40 19.83 42.70	-10.29% -1.95% 0.26% 0.35% -6.65%	0.26 - 0.35 20.19 - 38.12 10.80 - 19.49 12.42 - 20.51 26.04 - 46.00	 12.86% 26.00% 0.46% 3.32% 7.17%
Satellite Service Providers					
Gilat Satellite Networks Ltd. Globecomm Systems Inc. International Datacasting ORBCOMM Inc. RRSat Global Communications Net	GILT GCOM IDC.TO ORBC RRST	5.76 9.85 0.43 2.98 7.85	12.06% -2.18% -4.44% 13.31% 2.61%	3.95 - 6.25 6.52 - 10.24 0.23 - 0.50 1.64 - 3.13 6.70 - 12.50	7.84% 3.81% 14.00% 4.79% 37.20%
Consumer Satellite Services					
British Sky Ads DIRECTV DISH Network Corporation Globalstar, Inc. Sirius XM Radio Inc.	BSYBY.PK DTV DISH GSAT SIRI	47.68 42.51 21.41 1.44 1.56	3.16% 3.73% 9.46% -3.36% -7.69%	30.54 - 47.73 29.83 - 44.61 17.32 - 24.16 0.91 - 2.11 0.65 - 1.74	↑ 22.04%

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 Market 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 (Jan. 14)	% Change 2 Weeks Ago	% Change Jan. 03, 2011
Satellite Markets 25 Index [™]	1,237.95	-1.53%	-1.53%
S & P 500	1,293.24	1.68%	1.68%

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