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SATELLITE Markets & Research

Industry Trends, News Analysis, Market Intelligence and Opportunities

Trends to Watch in 2013

by Virgil Labrador, Editor-in-Chief

will shape and influence coming industry trends (not necessarily in order of significance):

SpaceX's Dragon Spacecraft Delivers Cargo to the International Space Station (ISS). After the retirement of the Space Shuttle last year, the US no longer has a vehicle capable of delivering cargo to space. Private start-up company SpaceX filled that void in May when it successfully delivered a cessfully returned to earth. significant achievement bodes well

tion.

With its fiscal problems, the U.S. has no choice but reserved for the 'Big Four' operators. to rely on commercial providers for its current and future space transportation needs. The success of The introduction of Intelsat's Epic NG Satellite SpaceX paves the way for many other commercial architecture. Announced at CommunicAsia in June providers, spurring competition and innovation.

launch vehicle. Show, Virgin Galactic introduced its new low-cost

launcher aimed at delivering small satellites to lowearth orbit. The Virgin Group led by visionary enhakespeare once said that the "past is pro- trepreneur Richard Branson has already invested logue." And the significant events of 2012 are heavily in its Virgin Galactic space tourism venture. a good portent of things to come in 2013 and The entry of such a heavyweight company with a beyond. Here are some of the events from 2012 that long track record of success will shake up the launch

> services industry as well as lead to other spin-off technologies for the satellite industry from the emerging space tourism industry.

> Boeing's new Electric Propulsion satellite. major innovation that will help prolong satellite life and lower cost of satellites. It's first two customers, regional operators cast Satellite, announced at the 2012 Satellite show a

for the commercial development of space transporta-joint-procurement which levels the playing field among satellite operators by letting smaller operators have the benefit of the economies of scale usually

2012, Intelsat's Epic^{NG} Service which will incorporate some of the key features of High Throughput Ka-band satellites like spot beams and frequency re-Virgin Galactic Unveils LauncherOne low-cost use, with Ku- and C-band capacity. If anything else, At the 2012 Farnborough Air this new service shifts some of the focus from Ka-

Continued on page 4

1,000 lbs, cargo the ISS and suc- SpaceX' Dragon Capsule docking SATMEX and Asia Broad-This in the Internation Space Station.

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New Year, New Challenges

ell, 2012 came and went and the Mayan prognostication that the world will end did not come to pass. Nor did the gloomy outlook of most analysts towards the global economy —with the European debt crisis and the so-called "fiscal cliff" in the U.S. looming large at the end of 2012. It turns out, it's not as bad as everyone think. Although it will still take time to recover, Europe will be fine and the U.S. will still be the U.S.

The bright side is that the emerging markets are booming. The Middle East, Eastern Europe, Central Asia, Asia-Pacific, Latin America and Africa will be growing at a rate much higher than in the mature markets of North America and Western Europe. Demand for satellite services will come from broadband, cellular backhaul and video distribution from these emerging markets.

The year is already off to a great start. On January 3, the National Defense Authorization Act (NDAA) for Fiscal Year 2013 will take effect repealing some of the more restrictive provisions that placed satellite technology on the export control list. This is certainly good news for U.S. satellite companies

who have been losing out over the years on potentially billions of dollars in business abroad to its European and other counterparts. It's a much needed shot in the arm for the U.S. satellite industry.

The Annual CES show in Las Vegas kicks off on January 8. This is a great way to start the year. As I have been writing in my previous columns, the CES show is becoming more important to the satellite industry as a harbinger of things to come. With broadcast technology evolving in the multi-screen environment,



The CES in Las Vegas attracts over 150,000 attendees from all over the world.

and the popularity of mobile devices, which will all be showcased at the CES, satellite companies need to follow the trends at CES. This month the CES is expected to showcase Ultra HD, which is also called 4K TV—a technology that uses up to four times more bandwidth than Standard HD.

At the end of the month, from January 29-31 the West 2013 show in San Diego, California will shed light on the changing military satellite market. Its theme this year is "Pivot to the Pacific: What are the Practical and Global Implications." The show will explore the military's changing requirements and the shift in focus into the Asia-Pacific region.

We will be covering these two important shows in next month's issue of the *Satellite Executive Briefing* and in our website www.satellitemarkets.com Stay tuned. It's going to be a very interesting year.

Vigil Lahder

Virgil Labrador



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Trends to Watch...From page 1

band satellites and finds new purpose There will continue to be defor C- and Ku-band capacity.

The launch of Viasat's Exede Inflight broadband service. It's official: satellite in-flight broadband is back and this time for good. Analysts project that by 2015 all airline flights will have some form of broadband connectivity.

Unlike it's first iteration with Connexion by Boeing in the early 2000s, which resulted in a huge financial failure, the U.S. Satellite Export Control in-flight broadband providers which includes On Air, Row44, GoGo, among others, are capitalizing on the strong demand for airline passengers to stay connected during flights. Welcome to the "always connected" world we now live in.

(UHDTV). Ultra HD, also called 4K TV, was initially seen at CES 2012 in January and was heavily promoted at for U.S. satellite companies who have the IBC in September. During a press briefing on the eve of IBC, SES executives were very bullish on UHDTV, which they believe will be taking off sooner than most people think, perhaps as early as 2015. Eutelsat announced that it will broadcast the first Ultra HD channel in January 2013 and broadcast trials are scheduled in Korea in early Other developments to watch in 2013 2013.

The increased bandwidth requirements The launch of the first four all-Ka-band of Ultra HD (as much as four times that of standard HD) can be a potential bonanza for satellite operators. However, prices have to come down drastically from the US\$ 25K for a Ultra HD TV set and a critical mass of Ultra HD channels have to be launched in the next few years for Ultra HD to take off.

Changing Military Requirements The U.S. military budget was under intense scrutiny with the impending "Fiscal Cliff" which was narrowly averted by a last minute deal in Congress. Drastic cuts were avoided, temporarily but expect that the military satellite market will most likely remain flat while other vertical markets will grow such as oil and gas.

mand for satellite capacity and services from the military, but it will be coming from different applications such as Unmanned Aerial Vehicles (UAV) and might shift to other regions such as the Asia-Pacific, where booming economies and rising security tension are fueling military buildup.

Restrictions Relaxed. The satellite industry got a great Christmas gift when a bill was passed by congress that eases the export of satellite technol-The National Defense ogy. Authorization Act (NDAA) for

Fiscal Year 2013 repealed some other In 2012, Asian satellite operators, Thaisatellite technology on the export control list. This is certainly good news been losing out on potentially billions of dollars in business abroad to its European and other counterparts. Expect more heated competition for contracts and procurements in emerging markets that U.S. companies were hitherto prohibited from participating.

include the following:

satellites in the O3b constellation is scheduled for the first half of 2013. which will focus on the emerging markets in Latin America, Africa and Asia will also be a good indicator of how are in the emerging markets.



There will continue to be demand for satellite capacity and services from the military, but it will be coming from different applications such as Unmanned Aerial Vehicles (UAV).

Here comes Ultra-High Definition TV more restrictive provisions that places com and AsiaSat announced a jointventure to share capacity on an upcoming satellite to be called Asiasat 6/ Thaicom 7. The increasing competition among satellite operators, which have so-called "Big Four" dominate the marketplace, are opening up new and creative ways for smaller operators to work together through joint ventures and procurements and capacity-sharing arrangements such as condosats and hosted payloads.

> It's always interesting to watch how the satellite industry reacts to changing customer requirements, global economic developments and increased competition from other delivery sys-The launch of O3b Ka-band satellites tems. Over the years, even during the dot.com bust in the early 2000s and the global economic crisis of 2008-09, it will be a bellwether for the viability of has managed not only to survive but to Ka-band satellites and applications. It prevail, posting modest growth rates every year since 1998. With the promvibrant the demand for satellite services ising prospects, the industry should continue to do well in 2013 and beyond.

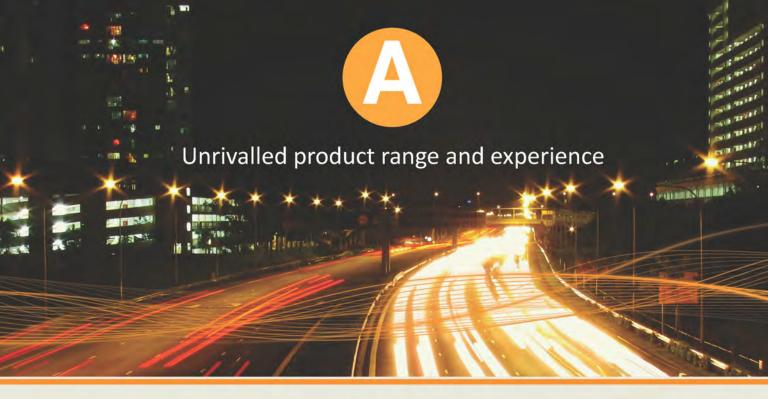




Virgil Labrador is the Editor-in-Chief of Satellite Market and Research based in Los Angeles, California. He is the author of two books on the satellite industry and has been covering the industry for various publications since 1998. Before that he worked in various capacities in the industry, including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

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

Satellite Executive Briefing



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Russia-based operator Gazprom Space System's brand new telecommunication center in Schelkovo near Moscow. In a space of a little over a decade, Gazprom has built a sizeable infrastructure both on the ground and space to meet the growing demand for satellite capacity and services in Russia and in the international market. (photo courtesy of Gazprom Space Systems)

end of 2012.

GSS, formerly known as Gascom, first broke into the international market in the year 2000 with a broadcast distribution contract with the Turkmenistan government for four TV of Yamal-201 and 2002 satellites in November 2003 further expanded its services in the international market. Before the launch of its new satellites in 2012, GSS' revenues constituted 30 percent of its total revenues. The addition of the GSS' extensive engineering experience and expertise also new satellites Yamal-300K and Yamal 402, launched in No- enables it to provide facilities for space and communication vember and December 2012 respectively, with their cover- systems development and production. GSS can act as deage as far as Europe, Middle East and Africa, South East signer and integrator of space systems and facilities. Asia and Australia will further enhance their position globally.

Development of Ground Infrastructure

GSS embarked on an aggressive expansion and upgrade of its Telecommunication Center located in a six hectare facility in Schelkovo near Moscow beginning in 2008. In 2009 one of the company's older teleports and an Internet Center were moved to Schelkovo from Korolev City. In 2010, the MCC and TT&C facilities were relocated to Schelkovo. The state-of-the-art facility now hosts all communications services on their new satellites as well as the TT&C and capacity monitoring will be also performed from this Telecommunication Center.

ussia-based satellite operator Gazprom Space Sys- The Telecommunication Center is supported by two other tems (GSS) had a very interesting year in 2012. 2012 ground facilities—one in the Moscow City center and the was the year when GSS was to put all the pieces other teleport in the Dolgoye-Ledovo area, also near Mostogether from both the ground and space segment to position cow. A network of over 500 ground stations all over Russia itself among leading operators in the international satellite has access to Gazprom satellites. Users of the ground netmarket. In just a little over a decade, GSS has built a strong work include various business entities such as oil and gas, infrastructure on the ground and in space culminating in the banking, finance as well as government, non-governmental launch of two new satellites within a six-week span at the organizations, among others. In addition, the largest European and Asian teleports, about 30 of them, point antennas at GSS satellites.

The sophisticated ground facilities of GSS enables it to provide a wide variety of services including: Satellite broadcast channels via its Yamal-100 satellite. The subsequent launch distribution and Direct-to-Home services; Satellite broadband internet access; VSAT services; and Air Traffic Control services.

Space Infrastructure

GSS operates the Yamal satellite system named after the northern region of Russia near the Artic circle. "Yamal" in the native Nenets language means "the ends of the earth."

GSS' Yamal 202 satellite at the 49°E orbital position, with its coverage of a significant part of the Eastern hemisphere, provides a substantial number of international services. Yamal satellites' capacity is used for satellite services provision to end users in 50 countries. International TV channels uplink points are located in Israel, Turkmenistan, Kazakhstan, Afghanistan, Denmark and the UAE.

Satellite Executive Briefing January 2013

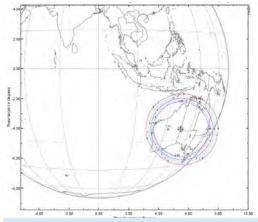
Company Spotlight

Satellite links for monitoring and operation control of the North Stream oil pipeline is provided via Yamal-202. The other network includes one of the world's largest oil fields: Rumaila in Iraq. The network is deployed to enable large European oil and gas companies to link with their affiliates and partners in Siberia and South Asia.

A significant part of the Yamal-202 capacity is dedicated to connect Hong-Kong with the Middle Eastern countries. Yamal-202 also connects base stations of the national Nepali mobile network. The highest altitude VSAT network, providing 3G network services, is operational at altitudes of 5,200 meters (16,400 feet). This network also supports climbing expeditions to Mt. Everest and other Himalayan mountains.

New Satellites

As part of its expansion program, GSS launched two new satellites in November and in December 2012, effectively doubling its current number of operating satellites from two to four. On November 3, 2012, the Yamal-300K was successfully launched in the 90°E orbital position. The satellite is mainly dedicated for the Russian market, but has steerable beam with three 72 MHz transponders which can be pointed



A unique feature of the Yamal-300K satellite is its steerable Ku-Band beam which can be focused on the South East Asia or Australian market.

position, but a series of maneuvers by Thales Alenia Space, the manufacturer of the satellite, eventually placed the satellite in its correct orbital slot.

Yamal-402 has 46 Ku-band transponders (66 equivalent transponders of 36 MHz each). Four transponders of 54 MHz each of Yamal-402 will be used in European beam, which covers the territory of the Western and Central Europe, the Middle East and North Africa. 8 transponders of 54 MHz each will be operated in wide Southern beam, which covers Africa to the south of Sahara. Up to three 72 MHz transponders can be activated in the beam, formed by the antenna,



The successful launch of GSS' Yamal-300K from Baikonour Cosmodrome in Kazhakstan in November 2012 pictured above and the subsequent launch of the Yamal-402 a few weeks later, will provide much needed capacity in the emerging markets of the Middle East, Africa and Asia-Pacific.

which can be steered by the commands from the earth during the satellite in-orbit operation. A cross-strapping of the Southern and European beams and of the Northern and steerable beams is also being planned.

Next Steps

South

East Asia or Australia.

On Decem-

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GSS

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Yamal-402

With rights to five orbital slots, GSS is just starting to develop its space infrastructure. GSS is planning to launch Yamal-401 in the 90°E orbital position in late 2013 or early 2014. GSS Deputy General Igor Kot says that they are looking into the feasibility of a Ka-Band satellite to be called Yamal-601 to be launched possibly in 2015.

Apart from developing their ground and space infrastructure, Kot says they are also exploring the possibility of joint projects and partnerships with other satellite companies. GSS has been implementing its strategy to develop key partnerships with global players such as its cooperative agreement with SES in relocating ASTRA 1F temporarily in its 55°E orbital position until the launch of Yamal-402 last month. Under the terms of the agreement, SES will have rights to a certain portion of Yamal-402 capacity.

GSS' International Sales Director Victoria Ioda said that with their upgraded ground systems and their newly launched and planned satellites, GSS is now well-position to meet the demands of customers worldwide. She said that GSS will be ramping up its sales efforts globally.

GSS has certainly come a long way since it launched its first satellite in 1999 and from the look of things, the company is well on its way to being an important player in the global satellite industry.





Former SSPI Chaipersons Roundtable

by Lou Zacharilla

n the first part of this "back and forth" with former chairpersons of the Society of Satellite Professionals International (SSPI), the benefits of a global association which concentrated on enhancing face-to-face, "physical" networks was discussed. In the wake of the Future Leaders Dinner awards in New York held in November 2012, the three also discussed the importance of mentorship and how industry associations such as SSPI, SIA, World Teleport Association and GVF, trigger collective action and move the industry forward.

The group concluded that associations should do things that companies alone are unable or unwilling to do. One of these is to probe and pursue new markets and industries for satellite services. The process of educating verticals comes first in any attempt to crack a new market. There are very few for-profit organizations that can afford to do it alone. It is debatable whether they should even try.

In this second segment, Ellen Hoff, President of W.L. Pritchard & Company; Maury Mechanick a principle with the law firm White & Case; and Clay Mowry, president of Arianespace America, share their views on how associations help with new business development.

Lou Zacharilla (LZ): I remember being at the SSPI Gala a few years ago when a senior executive for Cisco, who was with their then-new (and now abandoned) Internet Router in the Sky initiative, came up to me. He was pretty new to our business. He looked around and concluded that the satellite business really was unique. "I realized something this year," he said. "I realized that it is

damned hard to put something into space and to keep it there!" He was serious.

That wasn't exactly news to us, but you could sense his appreciation. I

thought, "Here is a new tech guy showing his appreciation for what many consider 'old tech.'"

A few of us discussed this afterward. What we concluded was that putting something in space is not easy, but it is not really the hard part. The hard part for the many engineering-type businesses in our industry seems to be trying to understand simple principles of marketing and then identifying a way to tap new markets for satellite services.

Assuming this is true, how can our industry and its associations do a better job at that?

Hoff: I think the main challenge is to talk to customers and prospective new customers in new industries, more often. We really don't do it enough as individual companies. It is tough to

"...I think the main challenge is to talk to customers and prospective new customers in new industries, more often..."

identify new markets for satellite services. Associations play a key role here. They, better than most, can bring people together on panels and other places, as SSPI does, to ask questions and to educate.

Mowry: Ellen's right. Organizations like SSPI can best help us shape new markets by fostering cross-industry discussion and dialogue. It is amazing how these exchanges of ideas can help reveal unexplored possibilities for the

satellite marketplace.

Hoff: We are not talking here about industry panels where we speak to each other. Many of the panels I see are among members of the industry talking to each other, not members of our industry listening to new prospective customers - or even EXISTING customers.

Mowry: I agree. There are many growth opportunities out there. There's a strong case for expecting a great deal of growth to come from emerging economies, many of which -Ellen Hoff are looking beyond fiber, cable, and copper to satellites for serving telecommunications

> needs, especially in Sub-Saharan Africa, South America, and other equatorial regions.

Mechanick: One of the principal determinants of demand for bandwidth today, which is what satellite services are all about, relates to the delivery of a continually broadening array of information content, particularly at the enduser level, whether in a business or consumer context.

LZ: But you cannot just put stuff in the sky and expect new customers to come to us?

Mechanick: Right. One of the keys to identifying new markets for satellite services is developing an ability to anticipate how changes in consumer consumption of information services and products will build or create future expectations and needs.

LZ: We're back to Ellen's "first listen to them" theme. Once you've figured out how to listen more effectively, then what?

Mechanick: You then must be proactive and figure out a role for satellites to ensure that their expectations can be met. This applies to every market because it is fundamental marketing.

LZ: Sounds like good marketing principles at work here. Some things do not

"...One of the keys to identifying new markets for satellite services is developing an ability to anticipate how changes in consumer consumption of information services and products will build or create future expectations and needs..."

-Maury Mechanick

change. So, associations can break ground in new areas by patiently listening to the needs of potential new markets and bringing together buyers and sellers for a dialogue. This can occur online, at industry events, including

panels and social activities and needs to occur consistently until we identify real needs. At that point we usher in our industry. That's good advice for 2013



Lou Zacharilla is the Director of Development of the Society of Satellite Professionals International (SSPI). He can be reached at: LZacharilla@sspi.org





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with this problem. Due to the steady cable and fibre expansion. rise of data streams on modern internet pages it can take ages to load an inter- The other proposed solution is LTE. browser to time out.

While internet access is widely regarded as a right and no longer a privilege – and social, economic and even political development is increasingly dependent on broadband connectivity millions of people across Europe suffer from insufficient or even non-existent internet connectivity. In Germany, a country with a very well established high-speed internet infrastructure, more than 6.5 million citizens (around 8 percent of the population) do not have access to speeds of 2 Mbit/s. Looking at the rest of Europe the picture gets considerably worse, as approximately 30 percent of EU households still suffer from too slow connections. Although several countries have set themselves ambitious broadband targets, political and economic obstacles often prevent the expansion of terrestrial networks, such as cable and fibre. The European Union, for example, wants to realize high-speed internet of at least 30 Mbit/s for all of its citizens by the end of 2020. Yet these targets will most probably not

out". Anybody who lives outside lages that do not exceed certain popula- provision in remote areas since 2007, an urban area in Europe is familiar tion levels will ever become viable for cooperates with designated Internet

net page these days, often forcing the LTE – short for Long Term Evolution – is considered by many to be the obvious successor to the current generation of ment areas. Such a satellite-based solu-UMTS 3G-technology. Many politicians and decision makers have been hailing LTE as the long awaited solution to the broadband misery in rural areas. However, the development of LTE-networks has not produced the intended results either. According to the German Federal Network Agency, the expansion conditions in all federal states have been met; meaning a further expansion of the LTE network in rural areas is not likely. Yet, as LTE technology is generally more profitable in urban areas, small communities that are most in need of high-speed internet have still been left waiting.

> So is there another solution for the under-connected communities in Europe? Yes, there is. Satellite broadband technology offers exactly what towns and villages in rural areas are so desperately waiting for: immediate high-speed internet access at relatively low cost. Most leading global satellite operators

← ← Page Load Error: Network Time- it is highly unlikely that towns and vil- been contributing to broadband internet Service Providers across Europe (ISP) that act as the wholesale supplier of its broadband platform and the capacity on offer, whereby each ISP markets the service within their respective catchtion is an especially cost-effective way for ISPs to reach every single potential subscriber with minimal capital expenditure for the ISP and a competitive monthly cost for end users in rural regions. To connect to the system, users merely need a satellite dish and a modem, which are available at affordable prices. Once connected, the satellite broadband solution appears and operates just like and also offers VoIP telephony and triple-play packages.

Yet, one of SES Broadband Services' solutions stands out from the crowd, as it does not only provide packages for single household users: "SES Broadband for Communities". The solution was introduced to the German market in 2012 and has been very well received by numerous communities throughout the country. It provides high-speed broadband internet connectivity via satellite to support entire groups of users via one single satellite antenna. This offer products that provide high-speed offers consumers and businesses in rube achieved, and still leave millions of internet to households via their satellite ral communities reliable and costhouseholds and entire communities in network. For example SES' subsidiary efficient broadband internet access to dire need of fast internet connections, as SES Broadband Services, which has areas not served by terrestrial broadband wherever they are located - be it in a mountainous village in the Alps or in a small coastal town on the North Sea. Moreover, the solution is eligible for subsidisation and very easy to install. Only a few weeks after a commu-

system is installed, based on the community's individual geographic Thereneeds. after, anybody in the village can surf the internet at high speed rates, merely having install a standard modem in their homes and signing a contract with the respective internet service provider. doesn't get any easier.

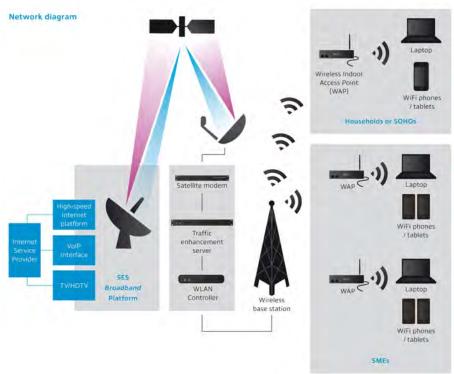
The solution combines the company's

"last-mile" technologies. This means France with all the benefits of the exist- cause ultimately the aim for end users, that SES Broadband Services provides ing satellite broadband, including uni- governments and service providers is one central broadband connection to an aggregation point and then brings internet connection to the end users via existing infrastructure, such as DSLAM, Cable or WiFi. With a fast and reliable satellite internet backbone and speeds of up to 8 Mbit/s for all end customers within the network as well as up to 16 Mbit/s for SMEs, SES Broadband for Communities is the next step toward reaching full broadband provision, as it provides entire villages and towns with high-speed internet.

In addition, the overall SES Broadband capability to its satellite fleet. Begin- johann.pohany@hotmail.de

"...find a service provider that is experienced in your industry. This will offer you the best chance of success..."

nity applies for the SES Broadband for ning with the launch of its latest space- not end here. Over the next 18 months Communities service, the satellite-based craft ASTRA 2F in September 2012, SES will be launching three additional



satellite broadband service with other the Ka-band payload is now providing band for Communities, a chance, beversal reach, instant availability and the universal provision of genuinely inexpensive, easy-to-fit end user equip- high-speed ment. Most notably, it will offer high Europe. And that will only be achieved data speeds of up to 20Mb/s, making with a technology mix including cable, satellite broadband a future-proof solu- fibre, wireless – and satellite. tion. Moreover, this development does

satellites and provide further Ka-band capacity to SES's network and extend its coverage core European markets, such as Germany, UK, Italy and the Benelux.

So what does this mean for rural communities in Europe? Put simply, satellite broadband will continue to fill the gap where other solutions reach their limits and deliver where traditional terrestrial technologies are not viable. The only thing community representatives have to do now is to give satellite internet solutions. such as SES Broad-

broadband





Johann Pohany has over 16 years of professional experience in senior management positions within a blue chip company, as CEO of a SME IT-Company and as CEO of ND Sat-Com. His background includes over 20 years in manufacturing, automation, energy, IT and about 10 years of Satellite Communication Industry experience. He serves currently as executive consultant and interim manager in various industries. Johann holds a PhD, lectures on "Information and Com-

Services offering for residential users as munication Systems for decentralized Energy Management" at the Univerwell as for communities will become sity of Brandenburg in Germany and is member of the program board even more competitive in the near fu- "Space" and Vice-Chairman of the "Navigation and Communication" Proture, as SES has begun adding Ka-band gram Board of the DLR (German Space Agency). He can be reached at:

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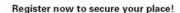
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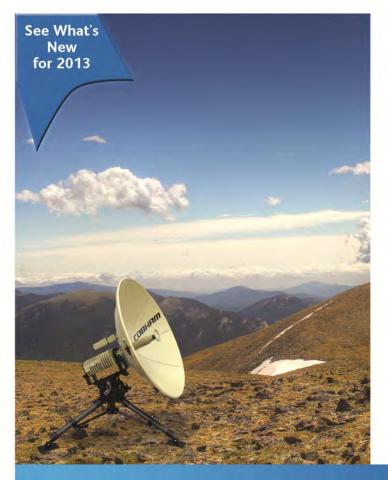
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Industry Briefs

Major industry news and developments

MERGERS & ACQUISITIONS

Harris Sells Broadcast Business to The Gores Group

Harris Corporation has reached an agreement to sell its Broadcast Communications business to an affiliate of The Gores Group, LLC for US\$225 million. The price includes \$160 million in cash at closing, a \$15 million subordinated promissory note and an earnout of up to \$50 million based on future performance. The transaction is subject to customary regulatory review and closing conditions and is expected to be completed in early calendar year 2013.



"The sale of Broadcast Communications reflects our strategy to optimize our business portfolio and focus on our core businesses," said William M. Brown, president and chief executive officer of Harris. "As previously communicated, we plan to repurchase up to \$200 million of our shares after the deal closes. This is in addition to the \$200 million of share repurchases already planned for fiscal 2013 and reflects our ongoing commitment to effectively deploy capital, including returning cash to shareholders "

"In Harris Broadcast Communications, we are investing in a proven technology leader with great products and a great team. We are excited to provide the capital and support to transition this division to a strong and independent company further enabling it to continue developing and delivering market leading technologies to its customers," said Rvan Wald, Managing Director of The Gores Group.

The Gores Group, LLC is a global investment firm focused on "acquiring controlling interests in mature and growing businesses which can benefit from the firm's operating experience and flexible capital base". Headquartered in Los Angeles. The Gores Group maintains offices in Boulder, CO, and London.

Motorola Home Sold to Arris

Arris acquires Motorola

transaction – the purchase of 100% of General Instrument stock held by current owners Google – includes around 2,000 granted and pending patents as well as provisions against potential litigation that includes action by TiVo.

"Acquiring Motorola Home builds on Arris' rich history, creating a global player with significant footprint, revenue and cash flow," said Bob Stanzione, chairman and CEO of Arris. "It also adds expertise in video and a larger presence in the home to our core strengths in voice and data, ensuring we are even better positioned to capitalize on and manage the evolution toward multi-screen home entertainment."

"We believe there will always be a device in the home and that will continue to evolve be it set-tops, gateways or clients. Support for these devices will focus around that gateway including the support for smart TVs and gateway or over-the-top services," said Marwan Fawaz, the executive vice president of Motorola Mobility who leads Motorola Home.

Motorola Home generated revenues of \$3.4 billion for the four quarters ending September 30, 2012. The combination is expected to generate approximately \$100 - \$125 million in annual cost synergies.



Home for US \$2.35 billion. The share Stanzione said there was a small amount of liability relating to TiVo action, expected to go to jury in O2 2013, but afterwards it was a matter for Google.

> The transaction is expected to close by the second quarter of 2013, subject to regulatory approvals and closing condi-

SpeedCastCompletes Buyout of ASC

SpeedCast Ltd, a Hong Kong-based global network and satellite communications service provider, together with its majority shareholder, private equity firm TA Associates, has completed a buyout of Australian Satellite Communications Pty Ltd (ASC).

Joining the SpeedCast Group, ASC will be able to offer its customers a wider portfolio of products and services and better serve its global customers' needs beyond Australia. ASC's Adelaide teleport will complement SpeedCast's global network, adding a second point of presence in Australia in addition to SpeedCast's existing teleport in Perth.

This combination will provide dual-site redundancy for SpeedCast's Australian customers and serve as a back-up to SpeedCast's Hong Kong infrastructure.



Industry *Briefs*

Major industry news and developments

EXECUTIVE MOVES

Jim Meyer Appointed Interim CEO of SiriusXM Radio

Sirius XM Radio announced that James E. Mever has been appointed Chief Executive Officer, on an interim basis, effective immediately. Meyer, SiriusXM's President of Sales and Operations, succeeds Mel Karmazin, who, as previously announced, informed the Board of Directors that he will not be renewing his current employment agreement. Meyer will also join the SiriusXM Board of Directors. The SiriusXM Board has formed a search committee, chaired by Greg Maffei and including James Mooney and Eddy Hartenstein, to consider both internal and external candidates, including Meyer, for the Company's next CEO.

Intelsat Names Grant Marais as Regional VP of Africa Sales

Intelsat announced that Grant Marais has been appointed Regional Vice President of Africa Sales, effective January 3, 2013. Marais will be responsible for supporting the growth of Intelsat's customers in the region, which includes leading telecommunications and wireless operators, network services providers, and DTH platform operators and broadcasters. Intelsat provides these customers with critical communications infrastructure, including 23 satellites serving the region, and the



Grant Marais

Intelsat **EpicNG** high throughput satellite platform, which is expected to launch in 2015.

Marais joins Intelsat from Nokia in Dubai, where he served as General

Manager of Sales for the Pan-Middle East, Africa and the Commonwealth of Independent States. Previously at Nokia, Marais oversaw the company's sales efforts in southern Africa and was

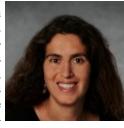
served in Uganda as Chief Commercial Officer for Simba Telecom.

EchoStar Hires FCC Veteran

nifer A. Manner, the former deputy chief of the FCC's Office of Engineering and Technology, as its vice presi- Hanafi will be dent of regulatory affairs. Manner will responsible report to Dean A. Manson, executive vice president, general counsel and sec-

Manner has more than 20 years of experience as a telecommunications policy and regulatory executive. In addition to her last role, she served the FCC as the deputy chief of its Public Safety tions. and Homeland Security Bureau from brings nearly 15 years of experience in 2009 to early 2012. She also served as Vice -President, regulatory affairs, Skyterra Communications; senior counsel

to FCC Commis-Kathleen sioner Q. Abernathy and director of international alliances WorldCom, Inc., as well as other high profile executive positions. In addition, Manner is



Jennifer Manner

an adjunct professor of law at Georgetown University Law Center.

Harris Names James D. Morris Group President of Integrated Network Solutions Business

Harris Corp. has named James D. Morris group president of the company's Integrated Network Solutions business, reporting to Harris president and CEO William M. Brown. In this role, Morris, 47, is responsible for leading the Integrated Network Solutions business, which includes Harris CapRock Communications, Harris Healthcare Solutions and Harris IT Services.

based in Mozambique. Prior to that, he Thuraya Appoints New Director of **Corporate Communications**

Thuraya announced that Shereen Hanafi has been appointed Director of Communications. In the newly created EchoStar Corporation has hired Jen- role, she reports to T. Sanford Jewett, Vice President of Marketing.

> for the company's global communications strategy including media relations and corporate communica-

> > She



Shereen Hanafi

the fields of corporate communications, marketing and product management in satellite and telecoms industries. Her prior roles were with SES, Xantic, Fenestrae and KPN. During her nine year tenure at SES, she was responsible for launching and raising the company's brand profile, in addition to leading the team responsible for executing its marketing communications activities across media and enterprise markets in the Americas, Europe, the Middle East, Africa and Asia Pacific

Encompass Appoints Belinsky Managing Dir. for EMEA

Encompass Digital Media announced the appointment of M. Brett Belinsky to Managing Director of Europe, the Middle East and Africa for Encompass based in London, Belinsky will work to proactively identify commercial growth opportunities and further expanding the company's client base in EMEA.

Belinksy will be based in London, where he will also oversee all existing facility operations. Prior to joining Encompass, Belinsky held multiple positions at Argiva Broadcast & Media. He is currently serving as the Chairman of the Board of the World Teleport Association.

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Omar Hawary, Business Development Manager, EMEA, Video Technology Group, CISCO



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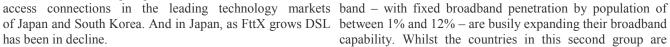
Key industry trends and opportunities.

Asia Fixed Broadband and Internet Market Forecasts

ixed broadband in Asia still dominated by the North HSDPA, WiMAX and WiFi hotspots). Singapore's Residenwas for a long time a phenomenon limited to the developed holds. economies, with narrowband dial-up access being the norm in the majority of the poorer developing countries of the re- The regional broadband market in Asia consists of a large band and Internet Market Forecasts. "

remains a 'digital gap'. In those economies where there is hold penetration to over 15% and implemented numerous e-

extensive access to broadband, both DSL and cable modem platforms have both proved popular, with DSL establishing a clear advantage. In fact Asia has become the leading region in the world for DSL, with close to 40% of the global DSL subscribers to be found in the region. More recently, we have seen the arrival of FttX as an alternative platform for broadband access in Asia. FttX already comprises over 50% of the high speed internet



nated by six 'high flyers.' These 'High' ranked markets com- fore a position can be claimed in the top grouping. prise five economies of North Asia plus Singapore. South Of the larger markets in this group, Malaysia is playing a 90% and 100%.

South Korea has been the most remarkable example of the Asian broadband revolution to be found in the leading mar- In the 'Low' grouping - countries with fixed broadband penehousehold, and excludes all wireless access plans (3G, 3.5G/ with low GDP per capita.

Asia players as the other markets try hard to close the tial Wired Broadband Household Penetration Rate was 105% 'digital gap. 'The energetic expansion of broadband as of March 2012, with 1.24 million wired broadband house-

gion, according to a new report entitled "Asia Fixed Broad- number of relatively small countries. There continues to be considerable activity in the internet and online markets across Asia ranging from China's impressive progress in This has been changing rapidly of late, but nonetheless there terms of sheer scale to Mongolia which has trebled house-

> government initiatives. China, with over 160 million broadband subscribers is still undergoing broadband subscriber growth in excess of 15% per annum despite already being the largest broadband internet market in the world.

> For the economies that fall outside the High band of Asian internet markets already noted, two distinct groupings appear in terms of population penetration. The countries in the 'Medium'

capability. Whilst the countries in this second group are gradually closing in on the top six, for the time being there As broadband internet continues to extend its presence remains a clear gap of 8% population penetration (equivalent across Asia, the region's broadband market finds itself domi- to around 35% of household penetration) to be bridged be-

Korea, Hong Kong, Singapore, Macau, Taiwan and Japan, significant role; in the last few years both operators and govfor the moment at least, have been well and truly leading the ernments in these markets have started to give priority to way in terms of both penetration and sophistication of their expanding internet access and speed. There are a few relative broadband services and infrastructure. Their fixed broadband newcomers to this group, too, Azerbaijan and Georgia being penetration rates by population are in excess of 20%; this examples of recent rapid growth. Although a clear leader sees fixed broadband household penetrations of between with the number of broadband lines deployed, China remains in this Medium grouping (at the top of the group) due to its huge population.

kets of the region. By mid-2012 fixed broadband subscriber tration below 1% of population - are those countries that, for penetration had reached 37% and over 95% of households in whatever reason, have not yet 'got their act together' when it the country had very high speed broadband internet connec- comes to internet. Of course, some are performing relatively tions. Another market of special note in the region well under difficult circumstances. In the last year or so, Sri is Singapore where the government has been implementing Lanka, recovering from its long-running civil war, managed broadband internet access - wired and wireless - for the to lift itself out of the Low group; similarly, India which, like whole of the island state. The Infocomm Development Au- China, has been struggling with servicing its huge populathority (IDA), Singapore's telecom regulator, has begun re-tion, has moved from the Low to Medium grouping in the porting what it referrs to as the 'Residential Wired Broad- last 12 months. Some economies in the Low category have band Household Penetration Rate'. This measures the total been plainly dysfunctional, with poor telecom infrastructure number of residential wired broadband subscriptions per and generally underdeveloped regulatory regimes combined





Key industry trends and opportunities.

COMSYS Projects Growth in Maritime VSAT

VSAT report. The report projects vigorous growth in the maritime VSAT market, forecasting that the number of vessels in service will double by 2016, bringing Milestones for Globecomm Maritime include installing 300 the total number of VSATs in service to more than 26,000. Market revenue expanded 9% in 2010 and 2011 and is now close to \$1 billion, due to increased demand for bandwidth.

The COMSYS report, which details the growth of maritime VSAT services, confirms that iDirect is the de-facto leader among ground infrastructure providers and is emerging as the platform of choice for high throughput services, affirmed by partnerships with several major satellite operators. The rport Further, COMSYS notes that iDirect's new X7 remote significantly raises the performance of its Evolution system to support higher data rates, challenging SCPC as the solution of choice for bandwidth intense applications.

The report say iDirect's remote terminals account for nearly half of all VSATs installed in the maritime market, at an installation rate more than twice any other vendor. The report also finds that 14 of the largest 20 maritime service providers use iDirect's satellite communications platform, and these companies lead the way in almost all of the major market segments including vessels in the high end segments of cruise and oil and gas vessels.

Meanwhile, in a related development Globecomm Systems Inc. announced that it has reached a maritime industry milestone, providing connectivity services to 3,500 ships globally.

platforms, from L-band to GSM and VSAT, as well as a Center, Long Beach, California, USA, suite of value-added software products, aligning its service provision to fast-changing customer needs.

This tremendous growth in the maritime market has seen Globecomm connect more than half of its customers over Inmarsat platforms, with the remainder divided between Iridium, VSAT, and GSM technology.

Malcom McMaster, President of Globecomm Maritime, said: "2012 has been an excellent year for Globecomm Maritime. We have remained focused on core technologies such as Inmarsat FleetBroadband, but have also expanded our range of services, with emphasis on extended Ku-band coverage and our combined Ku-band/L-band service se@FLEX. Reaching 1,800 active Inmarsat terminals demonstrates the success of continuing to support core maritime technology

OMSYS released the thrid edition of its Maritime while at the same time providing cost-effective services that our customers have come to know and trust."

> Wi-Fi networks to enable managed internet access for ships' crews, combining hybrid VSAT and GSM services, enabling remote access to onboard IT networks and providing firewall and anti-virus products that keep vessels safe and compliant.



Calendar of Events

January 20-23, 2013, PTC 2013, Hilton Hawaiian Village, Honolulu, Hawaii, USA. phone +1-808-941-3789, e-mail: info@ptc.prg web: www.ptc.org/ptc13/

March 12-14, 2013, CABSAT 2013, the Middle East & Africa's largest Broadcast, Digital Media and Satellite Expo, Dubai World Trade Center Center, Dubai, UAE. phone +971-4 308 6077 / 6915 email: info@dwtc.com web: http://www.cabsat.com

March 18- 21, 2013, SATELLITE 2013, Walter E. Washington Convention Center, Washington D.C., USA. phone +1-301-354-1797 web: www.satellite2013.com

2013 NAB Show®, Conferences: April 6 - 11, 2013, Exhibits: April 8 - 11, 2013, Las Vegas Convention Center, Las Vegas, Nevada, USA, phone: outside of U.S.: +1 202 595 2052; within U.S.: +1- 800 342 2460 email: info@nab.org web: www.nabshow.com May 21-23, 2013,

Globecomm Maritime provides a wide array of connection Space Tech Expo 2013, Long Beach Convention phone +44 (0) 1306 743 811, US Toll Free +1 877 842 6289 e-mail: info@spacetechexpo.com; web: www.spacetechexpo.com

> May 27-30, 2013, **SATCOM AFRICA 2013** co-located with The Broadcast Show Africa and Submarine Networks World Africa, Sandton Convention Center, Johannesburg, South Africa, phone +27 (0) 11 516 4015 email: keshni.reddy@terrapinn.com web: www.terrapinn.com/exhibition/satcom-africa/

> June 18-21, 2013, CommunicAsia2013 and EnterpriseITAsia2013, Marina Bay Sands Expo Center, Singapore, phone +65-623-336-6638 Email: www.communicasia.com web: www.communicasia.com www.goto-EnterpriseIT.com

Market Briefs

Key industry trends and opportunities.

OTT Video Market to Reach US\$ 37 Bil. By 2017

a larger revenue-generator than sub- as Europe and Asia grow more.

scriptions in the OTT-video market in 2017, highlighting its continued immaturity. Although US\$37 billion is an eye-catching number, OTT remains a small proportion of total TV and video revenues.

Informa estimates that OTT will only generate 8% of these revenues by 2017, its share of overall TV revenues will only reach double-digits

toward the end of this decade. And In 2017, the split among advertising, where the money will be in OTT, shape while US dominance of the OTT mar- subscriptions and transactions will be your strategies around the regions ket will wane slightly over the course of similar to the splits in 2012, with sub- where revenue growth will be largest the forecast period, it will still account scriptions growing slightly at the ex- and find out which business models will for over half of all revenues by 2017.

nforma Telecoms and Media fore- OTT revenues, but less of a shift in the headline figures here belie a more intercasts that the OTT video market business-model mix. The US accounts esting trend. In terms of share, advertiswill be worth over US\$37 billion in for over 75% of revenues today, but ing actually peaks in 2015, at 55% of all 2017. However, advertising will still be that will drop to less than 60% in 2017

pense of the other two formats. But the be the most profitable.

revenue, before dropping sharply in 2017 to 50%. Informa expects that, be-

yond 2017, the revenue mix will adjust to something similar to what we see with TV today, with advertising and subscriptions taking similar amounts of revenue on a global scale

Informa's OTT Video Revenue report features forecasts for the global regions, and 13 key countries, covering OTT advertising, subscriptions and transactions, including commentary explaining these revenue trends. This research will help you assess

Global Pay-TV Market to Reach 907 mil. Subs in 2013

lobal pay-TV market added nearly 47 million subscribthe growth in Asian Pacific markets such as China and India.

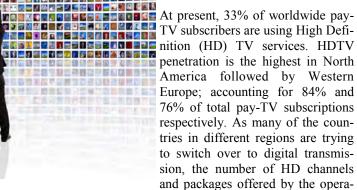
strong, although digital terrestrial TV growth was flat in 2012. ABI Research expects that the pay-TV market will continue to grow in 2013 from 66.2% in 2012. 2013 to reach 907 million subscribers," said Jake Saunders, VP and practice director of core forecasting.

Worldwide IPTV subscriber base has been increasing rapidly over the past few years. In 2013, the worldwide IPTV subscriber base is expected to add over 9 million subscribers to reach 79.3 million. More than half of the net addition

will be from Asia-Pacific; China alone is expected to add tors increase. "Worldwide HD service adoption is expected

more than 3 million subscribers.

ers in 2012 reaching a total of 864 million subscribers. Cable TV will maintain the largest market share of the over-"The growth in satellite, cable, and IPTV markets was all pay-TV market in 2013. However, rapidly growing IPTV



to grow. ABI Research forecasts that 38% of global pay-TV subscribers will be subscribing to HDTV services in 2013,"



The cable TV market will remain strong, especially due to noted Khin Sandi Lynn, research analyst.

From Ka-Band in London to HTS in D.C.: **Satellite Service Game Changer in Action**

by Martin Jarrold



ollowing the conclusion of the widely applauded satellite solu-GVF Ka Roundtable Assembly 2012: Satellite Ser- tion and equipvice Provision Game-Changer in Action event, ment provid-which took place in London on 5th & 6th December 2012 ers, and from with approximately 100 delegates attending, the satellite organizations industry has now called for a further platform to facilitate from key endextended industry and end-user dialog about high-capacity user markets, heard presentations, and contributed to interacstructures, and advanced networking applications. This furlite Roundtable Assembly, and it will take place in Washington DC on 21st & 22nd May 2013.

Chaired by David Hartshorn, Secretary General of GVF, Elisabeth Tweedie, Chief Executive of **Definitive Direction**, The **Roundtable Assembly** format has been designed by the

The GVF Ka Roundtable The Game-Changer in Action London....Dec 5 & 6

and high-throughput satellite systems, new ground infra- tive panel sessions, on how the satellite industry has developed frequency re-use and multiple spot-beam technologies ther platform will be called the GVF High-Capacity Satel- to provision for more spectrum bandwidth, and on how the industry is offering new generations of highly cost-effective services that high-capacity/high-throughput technologies are enabling.



Over 100 satellite executives attended the GVF Ka Roundtable Assembly 2012 in London from December 5-6.

and Stéphane Chenard, Special Executive Advisor with GVF-EMP Partnership to facilitate a multi-faceted dialog GVF, the London Roundtable Assembly was the first, dedi- with as many perspectives represented as possible based on cated. GVF-EMP Conference Partnership-organized the bringing together of a diversity of specialists, including gathering of its kind – and the first of a planned global series of Roundtable Assemblies on which the Partnership will continue to collaborate closely with the satellite industry and end-user markets.

The London event was closely supported by **O3b Networks**, Inmarsat, Hughes, iDirect, Avanti Communications, and Comtech EF Data, with Consulting Partner Definitive Di- The

end-users from key vertical markets (oil & gas, aerospace, disaster management and development-related NGOs, and satellite newsgathering broadcasters, etc), satellite operators, services and equipment providers, OEMs and hardware manufacturers, researchers and legal/regulatory specialists, together with re-sellers and value added re-sellers (VARs).

satellite broadband/high-capacity rection. A wide and varied audience representing broadband throughput satellite environment was *the* hot topic of 2012, and this will continue into 2013, and beyond, as more -and-more satellite operators respond to the accelerating demand for frequency spectrum to satisfy the requirements for increasing Internet bandwidth from a wide range of end-users, like those listed above, across the Corporate, ety and consumer sectors.



Enterprise, The Satellite Operator & Provider Forum at the Ka Roundtable Assembly Government, Civil Soci- held in London last month. Featuring from left panelists David Bettinger (iDirect), Nick George (Hughes Network Systems), Chris Georgeson, (Avanti Communications), Steve Petrie (Skylogic/Eutelsat), Jean-Philippe Gillet (Intelsat), and **Hesham Khalipha** (Arabsat).

Already orbited highthroughput systems - using the Ku-band and Ka-

band frequency ranges to bring access to the types of communications services and solutions - will continue to be Mahmood (Hughes Network Systems), Louis Dubin joined in GEO, and will be added to by yet more systems in satellite Ku-band – and offering up to 45 Gbps of throughput **Poucke** (Newtec) - have, of course, been in service for a number of years, reflecting operators' responses to the increased levels of demand for more-and-more spectrum, at lower-and-lower cost - evident for a number of years - through development of ever more efficient, powerful, and cost-effective space and ground segments.

Now the satellite operators have further responded by developing and deploying brand-new state-of-the-art systems using Ka-band (and also, it should be remembered, Ku-band) to bring in excess of 1.6 Tbps of aggregate capacity to support fixed (FSS), mobile (MSS), and broadcasting (BSS) Ground Infrastructure Focus with David Bettinger services. AND, this figure does not include O3b.

The London conference Opening Keynote was entitled 'The Time is Right for Ka-band', and was given by David Burr of O3b Networks. The first day of the program continued with:

Ka, High-Throughput, High-Capacity: Technology & Market Context, analyzed by Chris Baugh of Northern Sky Research

Satellite Operator & Provider Forum with panelists David Bettinger (iDirect), Nick George (Hughes Network Systems), Chris Georgeson, (Avanti Communications), Steve Petrie (Skylogic/Eutelsat), Jean-Philippe Gillet (Intelsat), and Hesham Khalipha (Arabsat)

User Vertical Focus with panelists **Nick George** (Hughes Network Systems), Simon Barrett (Avanti Communications), Diana Goody (Harris CapRock), Dave Nicoll (Sematron), and **Heath Lockett** (IHS)

OEM Forum with **Jonathan Barter** (iDirect), **Khalid** (Comtech EF Data), Doron Elinav (Gilat Satellite Net-MEO and LEO. High-throughput satellites employing the works), Jack Buechler (Advantech Wireless), and Bart Van

> Following the day two Opening Address from Michèle Le Saux, Head of Ground/User Segment Product and Technology Section, Telecommunications and Integrated Applications Directorate, European Space Agency, which set-out the 'The European Space Agency Ka band Roadmap', the program featured:

A session on Ka Engineering with Jim Mowat (O3b Net-

(iDirect), Louis Dubin (Comtech EF Data), Ken Westall (AvL Technologies), Drew Klein (C-COMM Satellite Systems), and David Hartshorn (GVF)

Networking Applications Forum with David Burr (O3b Networks), Khalid Mahmood (Hughes Network Systems), and **Thomas Bopp** (On behalf of the Small Cell Forum)

Regulatory & Licensing Focus with Tony Azzarelli (Spectrum Policy Group, Ofcom), Nina Beebe (Access Partnership), and Carlos Nalda (Squire Sanders)

The full range of organizations registered for the event may be viewed on the Roundtable Assembly homepage at www.uk-emp.co.uk/future-events-2012-13/ka-roundtable, and the program of presentation content is available for download in PDF format from www.uk-emp.co.uk/future -events-2012-13/ka-roundtable/program.

More information on GVF-EMP Partnership programs is available at www.uk-emp.co.uk/future-events-2012-13.

"The satellite broadband/highcapacity satellite/high-throughput satellite environment was the hot topic of 2012, and this will continue

into 2013, and beyond..."

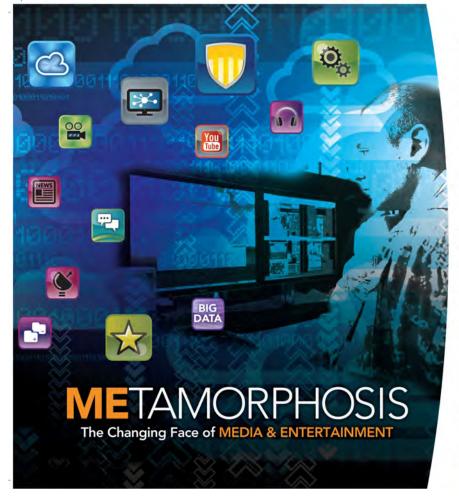
For example: How successfully have rain-fade issues been addressed, and how this does this impact upon service level agreements? Is there any risk of bandwidth oversupply? Contrarily, what happens if spot-beams get full-up? What might be the costs of migrating pre-existing customers over to high-throughput systems?

There are, of course, still many more questions. The Roundtable Assembly in Washington will provide some more key answers.

The GVF High-Capacity Satellite Roundtable Assembly, taking place in Washington DC in May 2013 is a very exciting prospect. Following the original London event by just over five months, there will have been many new developments on the high-capacity/high-throughput front, and there will be many more answers to some of the key questions, and some more-developed responses to some of the concerns, regarding the high-throughput satellite environment.



Martin Jarrold is Chief of International Program Development of the GVF. He can be reached at martin.jarrold@gvf.org



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The Satellite Markets 25 IndexTM

Company Name	Symbol	Price (Jan. 03)	% Change from Last Month	52-wk	Range		% change from 52-wk High
Satellite Operators							
Asia Satellite Telecommunications Eutelsat Communications S.A. APT Satellite Holdings Ltd. Inmarsat Plc SES GLOBAL FDR	1135.HK ETL.PA 1045.HK ISAT.L SES.F	25.00 25.49 2.02 606.00 21.945	2.04% 7.19% 0.00% 3.15% 2.45%	15.60 20.16 1.23 361.68 17.52	25.00 30.05 2.64 614.50 22.06	* * * * * * * * * * * * * * * * * * * *	0.00% 15.17% 23.48% 1.38% 0.53%
Satellite and Component Manufacturers							
The Boeing Company COM DEV International Ltd. Lockheed Martin Corporation Loral Space & Communications, Inc. Orbital Sciences Corp.	BA CDV.TO LMT LORL ORB	77.47 3.25 93.55 55.56 14.36	4.29% 7.97% 0.27% -34.69% 9.70%	66.82 1.89 79.65 51.91 10.59	77.98 3.28 95.92 85.84 15.23	•	0.65% 0.91% 2.47% 35.27% 5.71%
Ground Equipment Manufacturers							
C-Com Satellite Systems Inc. Comtech Telecommunications Corp. Harris Corporation Honeywell International Inc. ViaSat Inc.	CMI.V CMTL HRS HON VSAT	0.65 26.44 49.44 65.00 39.67	1.56% 3.44% 4.90% 5.98% 3.77%	0.50 25.61 36.52 52.21 33.09	0.90 34.89 52.23 65.50 49.80	• • • •	27.78% 24.22% 5.34% 0.76% 20.34%
Satellite Service Providers							
Gilat Satellite Networks Ltd. Globecomm Systems Inc. International Datacasting Corporation ORBCOMM, Inc. RRSat Global Communications Network L	GILT GCOM IDC.TO ORBC t RRST	5.34 11.56 0.185 3.78 6.51	1.52% - 2.69% 5.71% 11.83% 0.93%	2.31 9.44 0.16 2.72 3.50	5.60 16.00 0.35 4.19 6.96	***	4.64% 27.75% 47.14% 9.79% 6.47%
Consumer Satellite Services							
British Sky Broadcasting Group plc DIRECTV Dish Network Corp. Globalstar Inc. SIRIUS XM Radio Inc.	BSYBY DTV DISH GSAT SIRI	50.13 51.62 36.93 0.35 3.08	2.81% 3.86% -0.30% -10.26% 11.19%	39.43 41.92 26.12 0.22 1.78	51.25 55.17 37.92 0.91 3.10	* * * *	2.19% 6.43% 2.61% 61.54% 0.65%

INDEX	Index Value (Jan. 03)	% Change from Last Month	% Change Jan. 03, 2012
Satellite Markets 25 Index [™]	1,275.33	0.68%	22.39%
S & P 500	1,459.37	3.05%	13.94%

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 a benchmark to gauge the overall health of the satellite industry.

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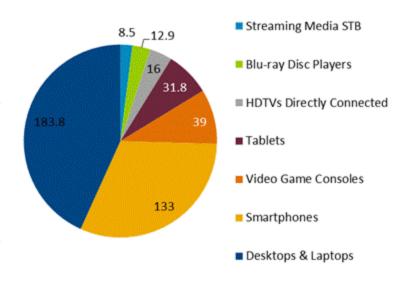
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425 million Connected Devices in the U.S.

The NPD Group's Connected Intelligence report revealed that there are 425 million devices connected to the Internet in US with growth fuelled by the proligeration of devices such as gaming consoles and Blu-ray disc players adding to the number of connected TVs.

NPD added that strong consumer retail sales of products such as tablets and smartphones were also impacting the traditional computer's share of Internet connected devices and that by the end of 2013 there will likely be an even more pronounced shift towards more screen-sharing across devices is expected. One knock-on effect of such converging device ecosystems, said the analysis, was that it would allow overthe-top (OTT) content to become even more prominent on the TV. "Mobile is adding another dimension powered by screen sharing technologies that allows users to project their tablet or smartphone onto their TV." suggested John Buffone, director, NPD's Connected Intelligence.



Source: NPD Group.

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