Satellite Footprint in Asia-Pacific

Findings indicate that in 2010, global satellite operators saw a strong revenue increase of over $550 million, derived from the lease of commercial satellite capacity. NSR projects that by 2020, capacity leasing revenues will reach $17.2 billion, up from U.S.$10.1 billion in 2010.

"While growing transponder demand and increased pricing are certainly good news for satellite operators, broadcasters and end users are taking advantage of new technology to get more utility and revenue from each leased MHz," notes Patrick M. French, Senior Analyst for NSR and report author. "Maintaining this critical value proposition will drive the addition of over 17,000 SD, 5,000 HD and 200 3D channels for carriage on the world's DTH and distribution platforms, along with other development, in the coming ten years," French adds.

Combining commercial C-, Ku- and widebeam Ka-band transponder demand, NSR estimates over 5,480 TPEs (transponder equivalent) of capacity was leased on the global market in 2010, and will increase at an average annual rate of 2.3% through 2020 to well over 6,900 TPEs. DTH and video distribution drives new transponder demand, followed by VSAT networking and commercial mobility services. In addition, NSR projects that worldwide High Throughput Satellite (HTS) capacity demand will increase by over 620 Gbps in the coming ten years.

Official ILS Proton Inmarsat-5 F1 Lift Off

According to NSR, the most important point to make about the global HTS market is that the majority of the demand expansion is developing in truly new areas and not at the cost of other parts of the traditional satellite market. In short, the emerging HTS services are most important in terms of how they expand the overall size of the global satellite market, says the firm. *K. Dass* reports recent developments.

In response to the 7.8 magnitude earthquake that struck Nepal on April 25, 2015, NovelSat, a world leader in satellite transmission technology joined in the relief effort by providing satellite modems to an Asian-based satellite teleport who was providing communications infrastructure at the scene. "The devastation in Nepal is heart breaking," says NovelSat CEO Itzik Wulkan. "We are fortunate to have had the opportunity to donate needed tools like NS3000 satellite modems that are helping to save lives by improving communication at the scene of the quake."

In the Pacific Ocean, midway between Hawaii and Australia, lie the stunning islets of tiny Tuvalu. The stunning location is open to many natural disasters such as cyclones. ABS-6 has recently agreed to use its C-band A beam capacity to increase the volume of traffic to the Tuvalu islands offering high speed internet to support schools, banks, hospitals and IP backhaul for its mobile network. Tom Choi, ABS's CEO says, "ABS is proud to offer an effective solution to support Tuvalu Telecommunications Corporation (TTC) with reliable communications connectivity. In March 2015, Tuvalu experienced the impact of Cyclone Pam when it passed through the region and disrupted communications for days. This service will offer critical communications to ensure that the necessary infrastructure is readily available to support the needs of Tuvalu."

MCR facility

ABS has two prominent satellites serving this region: ABS-2 and ABS-6. ABS-2 is one of the largest satellites in the Eastern Hemisphere with 6 high powered Ku-band beams with 3 dedicated beams namely; Southern, India and Korea/SEA focused for this region for DTH

MEASAT Office in Malaysia


Nepal Earthquake disaster

services. In addition, the C-band Global and East Hemi beams are available for multiple connectivity requirements. For ABS-6, it covers East Asia and the Pacific Ocean region. Its wide C & Ku coverage beams are suitable for VSAT services, TV distribution, IP trunking, cellular backhaul and maritime services. The operator has strong partnerships with telecos, broadcasters, enterprises and government organisations.

ABS adopts the latest technology with new functionalities and capabilities that brings value to their customers. They are committed to provide clients with the best tailored solutions in achieving their business goals. Its Subic Bay facility is equipped with the latest technology and infrastructure to provide play out and content management solutions to support its customers' requirements.

Earlier this year, SES partnered with Digicel Pacific Limited to donate emergency satellite services to restore vital communication networks across Vanuatu. Using capacity on SES's NSS-9 satellite, communications networks were re-established, which allowed for relief operations and disaster recovery efforts in the cyclone-ravaged archipelago. During Typhoon Haiyan in the Philippines in November 2013, SES worked together with the Luxembourg government to deploy the Emergency.lu platform and inflatable antennas to help re-establish vital communications links in order to improve the effectiveness of rapid response efforts.

With the highest growth rate in any market segment, analysts are calling Ku-band video services like distribution for free-to-air (FTA) and cable head-ends, direct-to-homes (DTH), contribution and occasional use the global commercial satellite market's rising stars. If certain projections hold true, more than 500 36 MHz transponder equivalents of Ku-band capacity will be added to global capacity demand by this year – with half coming from DTH markets alone.

According to research firm NSR, every region globally is showing sustained growth from direct-to-home services, it says there are no reasons why this will change well into 2015. NSR researchers say the satellite industry has stumbled on a number of new and promising markets, with internet access to commercial airlines being one that holds promise for new demand. Although the firm says this segment will eventually take off, satellite insiders should concentrate on what satellites do well besides video delivery.

SES serves over 44 million households and 160 million viewers in the Asia-Pacific region. Six of its fleet of 54 satellites provide satellite communications services to broadcasters, content and internet service providers, mobile and fixed network operators, and business and governmental organisations. SES's Glen Tindall, VP Sales, Asia-Pacific says, "Our customer portfolio is well-balanced between media and enterprise customers and we are also witnessing growth in the aeronautical and maritime sectors due to the demand for connectivity on-the-go in the skies and across the seas. SES is now a major actor in maritime and aeronautical connectivity and we are working closely with our partners to deliver in-flight and maritime connectivity and services to passengers around the world. This is why we have equipped our latest satellite, SES-9, with dedicated mobility beams to expand our capacity and capabilities in these two sectors.

"Many of our Asian customers also rely on our global reach and expertise to contract capacity outside of Asia-Pacific. One such example is StarTimes Communication Network Technology, China's most influential system integrator, technology provider and network operator, who has expanded its media footprint in Africa and deliver direct-to-home (DTH) broadcast services across the continent on SES satellite."

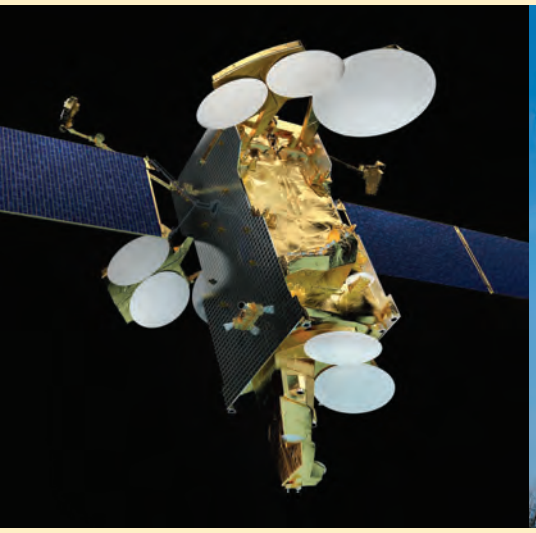
Another leader in Asia, MEASAT provides a complete range of reliable satellite solutions to customers across the Asia-Pacific, Australasian, African and European regions from a fleet of six satellites. In Asia, MEASAT has developed the 91.5°E orbital location into Asia's leading video hot slot. With the collocated MEASAT-3, MEASAT-3a and MEASAT-3b satellites, 91.5E is also the region's most robust orbital location. It also operates MEASAT-2 at 148.0°E and MEASAT-5 at 119.5°E. In addition, the AFRICASAT-1a at 46.0°E connects South East Asia to the entire African continent.

MEASAT's Yau Chyong Lim, Chief Commercial Officer shared, "We focus on providing tailored customer solutions. As an example, MEASAT's innovative pricing models and risk sharing approach jump started and then supported the growth of HD content across Asia. MEASAT's pioneering adoption of MPEG4 DVB-S2, 8PSK on MCPC video platforms enabled global partners and channels to leverage MEASAT's global coverage cost effectively. MEASAT has continued this approach with the adoption of


Tom Choi, ABS's CEO


SES's Glen Tindall, VP Sales, Asia-Pacific


MEASAT's Yau Chyong Lim, Chief Commercial Officer



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ABS Teleport

Inmarsat I-5 Satellite in flight

the latest DVB-S2X broadcasting and HEVC compression standards.

To better serve DTH clients in Malaysia, India and Indonesia, MEASAT launched the MEASAT-3b satellite in September 2014. Equipped with 48 Ku-band transponders, MEASAT-3b provides partners with the capacity they require to upgrade services and content, including migrating to HD and 4K.

The "Video on Demand" Asian satellite services report released by CASBAA shows a 9% market growth with some 1,370 transponders currently in use across the region. This was the highest growth rate reported over the last eight years by CASBAA and partner Euroconsult of France. Despite some high regulatory barriers, several markets have been particularly dynamic in terms of capacity requirements, including India, China and Indonesia.

While the growth cycle has been partially challenged by economic uncertainty, the impact on Asian satellite services has been relatively limited, with video broadcasting the primary growth engine. Indeed, the growth in TV broadcasting transponder demand increased from 25% to 37% three years ago.

While India remains the fastest growing market, now with more than 11 million DTH subscribers, nine other Asian countries now have more than 500,000 DTH connections. Nevertheless, an oversupply of Asian capacity is still a structural challenge. The fill rate has only recently reached 60% for the first time last year and is still below a world average of around 70%.

Third Global Xpress (GX)

Inmarsat's third Global Xpress (GX) satellite – Inmarsat-5 F3 has safely arrived at the Baikonur Cosmodrome in Kazakhstan in anticipation of its launch later this month.

Global Xpress will deliver broadband speed of up to 100 times faster than the company's fourth generation (I-4) constellation. Global Xpress will bring to life the prospect of the Internet of Everywhere. It will offer new opportunities for end-users in government, maritime, aviation, enterprise and the third sector, to significantly enhance their connectivity, even in the remotest and most inaccessible regions of the world.

Michele Franci, CTO of Inmarsat, said: "We are approaching the completion of our GX constellation and the arrival of Inmarsat-5 F3 at the Baikonur Cosmodrome is another significant milestone. This project represents a major commitment by Inmarsat and its successful completion and the start of global commercial services later this year will bring to life the prospect of the Internet of Everywhere. For the first time, we will be able to deliver seamless, superfast broadband communications across the globe – on land, sea and in the air – from one single operator."

Inmarsat I-5 in orbit

MEASAT is ready to distribute 4K video across the Asia-Pacific. This was demonstrated in 4K showcases at *CommunicAsia2014*, Singapore and *ABU DBS 2015*, Kuala Lumpur. These showcases implemented the latest broadcasting and compression standards so as to provide the highest value to customers.

With the introduction of 4K TV in Japan, South Korea and India, MEASAT anticipates that rest of the Asia-Pacific will soon follow. MEASAT expects to distribute its first regional 4K feed before the end of 2015.

Launched early this year, ABS-3A is the revolutionary all-electric propulsion satellite and is in an extended orbit-raising phase to geostationary position at 3°W. ABS-3A is equipped with 48 x 72 MHz C & Ku-band transponders and will offer expanded communications and broadcast capacity connecting the Americas, Europe, the Middle East, Africa, and the North Atlantic Ocean. ABS-3A is approximately 50% presold and we are seeking long term customers to increase the fill rate by another 20% prior to the in-service date of late Q3 2015.

At the 2015 NAB Conference and Exhibition in Las Vegas, SES partnered with broadcast and television technology innovators to create a full end-to-end Ultra HD transmission system and delivered three days of live and linear Ultra HD broadcasts to a fully operational cable system at the show – a first of its kind project signalling the readiness of the industry for 4K transmission. SES also achieved several milestones in the development of the UHD ecosystem. Together with Samsung Electronics, they broadcasted the world's first ever live concert in Ultra HD via satellite in 2014. SES also pioneered first Ultra HD transmission in the new high efficiency video coding (HEVC) standard that reduces bandwidth consumption by up to 50% in 2013.

SES is also gearing up to support the adoption of 4K in the region. Two of the seven new satellites that will be launched between 2015 and 2017 will provide additional capacity to support DTH operators in Asia as the demand for Ultra-HD in Asia-Pacific is expected to outstrip that of North America and Europe in the coming decade. *TVAplus*