

MARKET BRIEFS

Executive summaries of market trends and opportunities in key market segments and regions worldwide

Asia Report Highlights



- Asia Pacific Pay TV revenues expected to reach US\$43.9 billion in 2018; market dominated by China and India
- Growth in the enterprise VSAT market stood at 18 percent per annum over the past 5 years.
- Asia's mobile industry faces US \$5.3 billion backhaul shortfall as operators across the world face a mobile capacity crunch in 2017 due to insufficient backhaul investments.

Update on the Asia-Pacific Satellite Market

Pay TV boom boosts satellite services markets in Asia in 2013

by Peter I. Galace

Predicted to reach US\$43.9 billion in 2018, pay TV revenues in Asia-Pacific continue to fuel demand for broadcast satellite services in the region. For this

conversion, Direct-to-Home (DTH) television and intercontinental video transmissions — remain in high growth mode. Multi-year contracts of satellite operators are en-

abling the industry to maintain a dependable revenue stream reversing the trend in other parts of the world.

Transponder fill rates have remained generally high with good revenues from transponder leasing and purchases of satellite equipment by Asian countries remain buoyant. Even more encouraging, as Asian countries' continue to post higher economic growth rates, compared to countries in other regions, 2013 promises to be another good year for the Asian satellite industry.



Pay TV revenues in Asia are expected to reach US\$33.9 billion in 2013.

year alone, *Digital TV Research* estimates that pay TV revenues will grow by US\$2.1 billion to US\$33.9 billion paving the way for the region's fixed service satellite operators to continue posting significant growth.

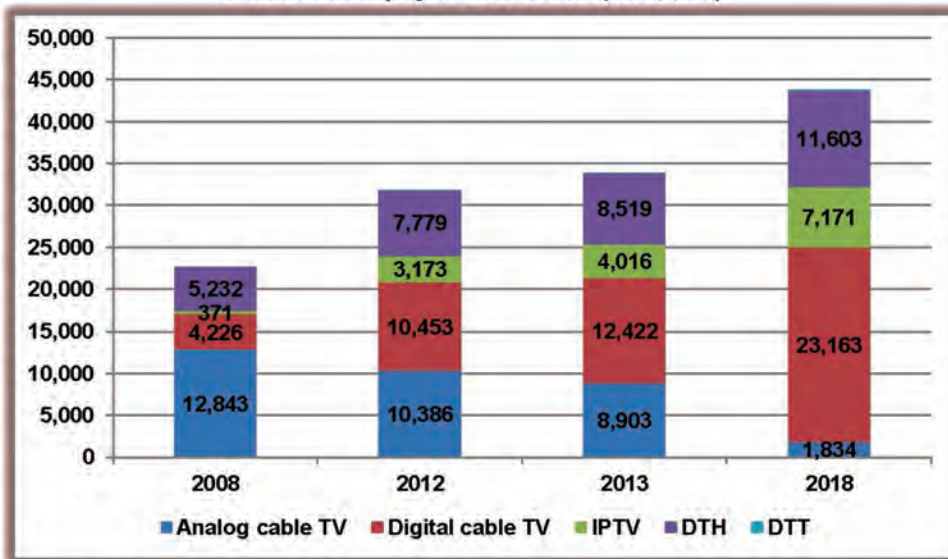
Asia's 3.3 billion mobile users are also driving demand for cellular backhaul while about 2 billion Internet-deprived Asians are looking forward to using cheaper broadband satellite Internet. But the industry's most important drivers — high-definition TV

US\$33.9 B Pay TV Revenues in 2013

Digital TV Asia Pacific report estimates that 2013 pay TV revenues (subscriptions and on-demand) of US\$33.9 billion is beginning to be dominated by China, which has overtaken Japan as the most lucrative pay TV market in 2012. Pay TV revenues will also more than double in five countries — Indonesia (tripling), Pakistan, the Philippines, Thailand and Vietnam — between 2012 and 2018, but will fall in Hong Kong.

(Continued on page 2)

Asia Pacific pay TV revenues (\$ million)



Source: Digital TV Research Ltd

Pay TV boom boosts ...

from page 1

While the Asia Pacific region is undergoing a rapid digital TV conversion, penetration will increase from 16 percent in 2008 to 44 percent in 2012 and on to 90 percent in 2018 — or up by 440 million homes between 2012 and 2018. By end of this year, digital penetration will reach 53 percent, or 420 million homes, a rise of 78 million on the end-2012 figure.

The good news for satellite service providers is despite the rapid conversion, digital TV will still have plenty of room for growth for some time to come. Report author Simon Murray said only six of the 15 countries forecast in this report will have fully converted to digital by 2018.

“By then, Indonesia and the Philippines will have digital penetration of only 42 percent and 34 percent respectively. Indonesia will still have 29 million analog homes and India 31 million,” he says.

Of the 440 million digital homes to be added between 2012 and 2018, 128 million will come from digital terrestrial TV. However, the report says, the number of analog terrestrial homes will fall by 204 million. Digital cable will contribute a further 187 million additional homes, with analog cable losing 141

million. Pay DTH will supply an extra 35 million and pay IPTV 71 million more. He predicts pay IPTV subscribers will overtake pay DTH users in 2016.

Murray’s conclusion: Pay TV penetration will rise from 56 percent in 2012 to 67 percent in 2018, adding 154 million subscribers to rise to 587 million. China will provide 313 million pay TV households by 2018. According to the Telecom Regulatory Authority of India, India alone already had 54.52 million DTH subscribers as of end of 2012. However, pay TV penetration will be higher in South Korea (95 percent) and Hong Kong (96 percent).

The robust growth of Asia-Pacific Pay TV is supported by the Media Partners Asia (MPA) predicting that the number of subscribers in the region will hit 696 million by 2020, reflecting a penetration of 68 percent.

Digital Subscribers Soar

The number of digital subscribers is expected to soar from 257 million in 2012 to 539 million in 2017 and 626 million by 2020—a 90-percent penetration rate—driven by the digital TV transitions in China, India, Korea and Taiwan. Within the digital base, MPA expects HD subscribers to rise from just 37 million last year to 160 million by 2020, led by China, India, Japan, Korea, Australia, Taiwan and Malaysia. Digital

video recording growth is expected to be slower, rising from 6 million last year to 18 million, says MPA.

Vivek Couto, the director of MPA, said of the latest findings: “A steady growth in population and a young demographic, combined with a rising middle class and the spread of wealth among local groups, is driving strategic decisions and execution in the Asian Pay TV industry. These factors, in turn, will help boost household formation and consumer spends. This will also help grow pay TV consumption and investment.” Couto notes that investments in local content, digitization and the growth of HD, premium and on-demand services will drive subscriber and revenue gains in the region.

Enterprise Markets to Post Faster Growth Rates

Richard Roithner of Euroconsult notes that growth in the enterprise VSAT market in Asia Pacific stood at around 18 percent per annum over the past 5 years in terms of total sites and around 10 percent p.a. in terms of estimated service revenue. He said the market has been strongly driven by more affordable broadband services (in particular through iPStar), increasing data demand from end users, still largely-insufficient terrestrial network coverage, government funds to connect schools or rural areas (notably in India, Australia and Thailand), and the banking sector, which has widely adopted VSATs now.

“Upgrades in many enterprise networks to more sophisticated services are also sustaining growth in both revenue and capacity usage. In addition, a number of Asian countries see VSAT regulations improving, which opens the market for more competition among satellite operators and service providers. The enterprise VSAT market has also benefitted from fast growing local economies in Asia including countries such as Vietnam, Indonesia, PNG, etc,” Roithner writes.

Research firm NSR shares this view

Telecommunication applications remain the largest contributor to market growth, particularly for trunking, which currently stands at about 46% of total capacity usage in the region.

and forecasts that the Asian and Latin American markets will see some of the fastest rates of growth in enterprise VSAT services and will begin to equal or exceed in terms of installed base of VSAT sites more mature markets like North America. NSR observes that both regions are experiencing similar demand trends with government social inclusion, USO, school network and related projects being big factors in driving growth in the installed base of VSAT sites. Also, NSR says Asia and Latin America are experiencing solid gains coming from more classic enterprise-class segments like banking and finances, oil and gas, retail and corporate clients.

Gains in VSAT Services

NSR also notes good gains in two-way narrowband VSAT services in Asia, North America and Western Europe, thanks to ATM and lottery networks that are well suited to two-way narrowband VSAT services. Thus, NSR predicts the industry should see significant expansions in ATM and lottery services, among other applications, in the coming 3-4 years that will drive important gains in the installed global base of two-way narrowband sites.

But Roithner cautions that growth dynamics remain very country-specific. He said there are significant differences between the countries within Asia Pacific and growth dynamics with most markets outside of India, Thailand, Indonesia and Australia remain small, due to a mix of low awareness, small

final markets, regulatory issues, high bandwidth costs as well as occasionally strong competition from fiber and GPRS.

India is the largest and one of the fastest growing markets for corporate and civil government networks over the last several years. With a large number of service providers, strong connectivity needs, and low-cost capacity due to Insat's control of transponder leases, the number of terminals in service has grown to over 160,000 active VSATs in 2012, a large part of which makes use of the domestic Insat system.

But India could be a problematic market, given the unclear investment rules, corruption, and bribery that remain a fixture in the Indian business and politics. Recent telecom investments of big companies like Vodafone Group Plc. of UK, Deutsche Telekom AG of Germany, and Columbia Capital LLC and Telcom Ventures LLC of U.S. are now facing stiff legal battles for tax issues or cancelled contracts in India.

Cellular Backhaul Service Shortfall

Telecommunication applications remain the largest contributor to market growth, particularly for trunking, which currently stands at about 46% of total capacity usage in the region. And cellular backhaul is beginning to hog the market.

According to *The Mobile Economy 2013* report released late last year by the GSM Association and AT Kearney, there are around 3.3 billion mobile connections in Asia, generating 57 percent of all new connections between 2008 and 2012. This means that Asia Pacific will add nearly half of all new connections between now and 2017, while 22 percent will be from Europe and North America combined. The region is projected to grow at 7 percent per annum between 2012 and 2017, adding 1.4 billion new connections.

Monitoring mobile phone sales, Gartner says sales of mobile phones in all regions except Asia-Pacific declined in the first quarter of 2013. Worldwide mobile phone sales to end users totalled nearly 426 million units in the first quarter of 2013, a slight increase of 0.7 percent from the same period last year. Worldwide smartphone sales totalled 210 million units in the first quarter of 2013, up 42.9 percent from the first quarter of 2012. But Gartner



Around 3.3 billion mobile connections are driving backhaul business in Asia. There is now a need to plan sufficient investment in backhaul to meet anticipated demand in the next five years.

AMOS Spacecom is Coming to Asia

Scheduled for launch in the second half of 2013, Spacecom's AMOS-4 satellite will establish a new orbital position at 65°E, providing a full range of satellite services for Asia, Russia, the Middle East and other additional service areas. AMOS-4's multiple Ku and Ka transponders create a powerful platform, enabling a wide range of cross-band, cross-beam connectivity options. For their customers, this means extensive broadcast and broadband reach into the vast urban and rural areas of these regions. Available satellite services for customers include Direct-To-Home (DTH), video distribution, VSAT communications and broadband Internet.

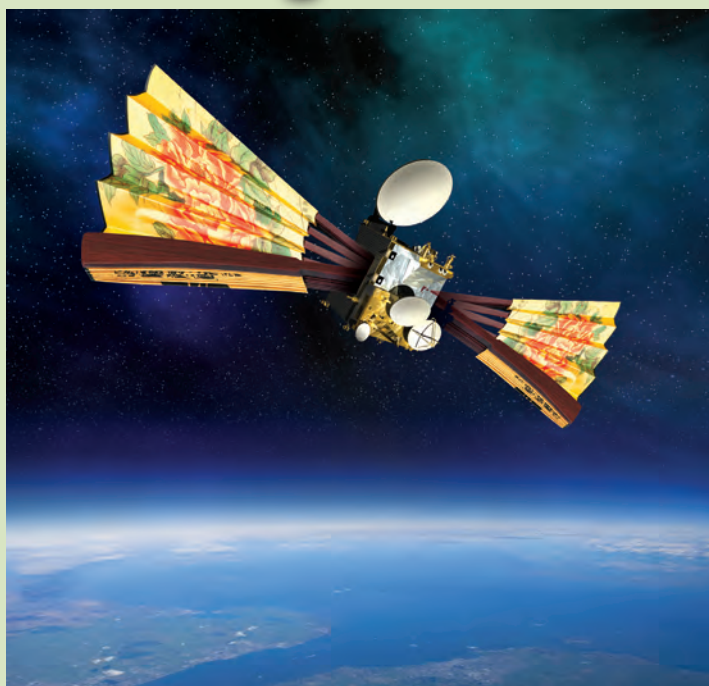
With its new orbital slot, additional capacity, expanded coverage areas and cross-region connectivity, AMOS-4 positions Spacecom at the forefront of international satellite operators delivering comprehensive satellite solutions.

The AMOS-6 satellite is planned for launch in 2015, to be co-located at the 4°W orbital position with AMOS-3, replacing AMOS-2. It will provide steerable Ku-band beams with Pan-European and Middle East coverage, and a Ka-band beam for broadband services with coverage in Africa and Europe.

With the launch of AMOS-4 and AMOS-6 satellites, Spacecom will expand its reach to serve additional markets, including Asia and Russia, strengthening its position as an international satellite operator.

Service offering

Spacecom provides broadcasting and communications services to DTH operators, TV broadcasters and programmers, government and corporate organizations, and VSAT network operators. The AMOS fleet offers a 4°W orbital "hot-spot" for the Middle East and Central and Eastern



Europe, and services over Africa from the 17°E orbital location.

Other value-added services include video, audio and data distribution, broadband Internet via satellite, GSM backhaul, uplink services and end-to-end tailored solutions.

Spacecom's partners include a variety of leading broadcasters and service providers such as HBO (Central and Eastern Europe), MTV (Ukraine and Adriatic countries), Antenna-Hungaria, HDT and Telespazio (Hungary), U.A. Inter Media Group, IMC and RRT (Ukraine), DRS Technologies (U.S.), Orange France-Telecom (France) and many others. throughout Europe, the Middle East and Africa. **MB**

notes the Asia-Pacific region was the only region to show growth in mobile phone sales this quarter, with a 6.4 percent increase year-on-year.

What do all these mobile statistics mean to satellite service providers? The additional strain of providing services to subscribers across the region in the backhaul business means more contracts for Indosat, iPStar, AsiaSat, Measat, Thaicom and other Asia regional satellites being used to support large amounts of satellite bandwidth capacity in the region for wireless backhaul.

Mobile Video, Another Huge Market

And there's more. Asian mobile phone users, particularly in Southeast Asia and India, are expecting a big uptick in mobile video consumption, which should prod regional satellite operators to design their services correctly to capitalize on the huge consumer interest on the service. According to the Cisco Visual Networking Index, video traffic accounts for 50 percent of total mobile data and is expected to increase 25-fold by 2015, to account for two-thirds of mobile data. This makes live TV and video on

demand the fastest-growing consumer IP service worldwide, a huge market waiting to be tapped by Asian satellite service providers.

In fact, Strategic Analytics (SA) has already foreseen the shortfall, concluding that Asia's mobile industry faces \$5.3 billion backhaul shortfall as operators across the world will face a mobile capacity crunch by 2017 due to insufficient backhaul investments.

The study of SA, commissioned by Tellabs, observes that operators are investing in radio network upgrades and migrating to LTE to meet surg-

Spacecom Senior VP-Sales, Eyal Coppitt

“Satellite is prime mover of broadband, broadcast and telecom in Asia’s vast landmass”

Q. Spacecom is launching this year Amos-4 satellite which will have coverage in Asia, can you discuss your offering to the Asian market and how it would benefit the region?

Eya Coppitt: Yes, the AMOS-4 satellite is scheduled to launch to the 65°E prime orbital position over Asia later this year. This will further position Spacecom as an emerging global satellite operator. AMOS-4’s two Ku-band beams and one Ka-band beam will cover a variety of Asian regions, including Russia and China, to meet the needs of broadband providers, broadcasters, ISPs, telecom operators and DTH and DBS operators.

Asia is an amalgam of markets. Each country and region needs a variety of services in accordance to its telecom, broadband and broadcast developments. With Ku and Ka-band capacity, AMOS-4 will bring its powerful and flexible beams to the region to create connections and neighborhoods to fill the growing needs of providers and operators to reach their audiences.

Q. What markets are you targeting in Asia?

AMOS-4, the newest addition to the AMOS constellation, will have eight Ku-band transponders of 108 MHz and four high-power Ka-band transponders of 216MHz, each with steerable beams. Its Ku and Ka transponders will create a powerful platform, enabling a wide range of cross-region, cross-band and cross-beam connectivity options to reach these regions’ vast urban and rural areas. Offering extensive broadcast and broadband reach for satellite services including DTH, video distribution, VSAT communications and broadband Internet, the satellite’s geographic distribution will meet broadcast and broadband needs within the Russian, Chinese, Asian, Indian and Middle Eastern markets.

By extending and strengthening the AMOS brand into new regions, Spacecom aims to fulfill a long-term objective to become a dominant player in the global satellite communications market.

Q. How are you differentiating yourself from



the many satellite operators already in the Asia-Pacific region?

Since our beginning almost 20 years ago, Spacecom’s strategic approach has been to reach out in developing regions to create service platforms that meet the requirements of an array of users in the telecom, broadcast and broadband sectors. With this mantra, we take great care in learning about the regions or countries in which we work and understand how best to operate within the specific cultural and business atmospheres. Asia is a new region for the AMOS brand and our platform offers an enticing range of cross-region, cross-band and cross-beam connectivity options. We are

seeing excellent interest in AMOS-4’s offerings to bring satellite broadcast and broadband for DTH, video distribution, VSAT communications and broadband Internet. Our teams are working diligently to create the proper business relationships and sales and support operations so that we can be successful. Already we are pre-selling space on AMOS-4 and are seeing positive results.

Due to Asia’s vast landmass, its plethora of scattered islands and special climatic conditions like monsoons and extended rainy seasons, the satellite industry is a prime mover of broadband, broadcast and telecom. By fully taking into account regional economic growth and how satellite services are positioned in each market, our sales teams are finding a great deal of promise in the relationships they are creating. We are very excited and look forward to being commercially operational in Asia.

Q. What are you plans for the Asia-Pacific region?

The prime orbital position at 65°E will enable the AMOS-4 beams to reach a wide area, from China in the East, to Russia and Southeast Asia. Every communications service provider — from telecom to broadband to broadcast — will be able to use the satellite. We are targeting commercial as well as governmental organizations that have needs for reliable and powerful signals to meet their goals. We are very keen for exciting deals in China and South East Asia as well as the Russian market. APAC is an

excellent place to be as economies are expanding and not only affluent but also middle class populations are seeking easy to access to sophisticated communications solutions. The beauty of satellite is that we offer these solutions over wide geographic regions to meet those growing needs.

After AMOS-4 begins commercial operations later this year, we will be able to bring these visions into reality.

Q. Anything else you would like to add?

Currently, Spacecom is a multi-regional satellite operator whose fleet includes the AMOS-2 and AMOS-3 satellites co-located at 4°W, and AMOS-5 located at 17°E. The constellation provides high-power coverage to Europe, the U.S. East Coast, Africa and the Middle East

for direct-to-home (DTH) and direct broadcast satellite (DBS) operators, Internet service providers (ISPs), telecom operators, network integrators and government agencies. Our 4°W 'hot spot' covers Eastern and Central Europe and the Middle East, while the AMOS-5 at 17°E covers Africa with connectivity to Europe and the Middle East.

In 2015, we plan to launch the AMOS-6 satellite, whose new technological capabilities will strengthen our 4°W 'hot spot' and add capacity for Western Europe and Africa, too.

By adding to our satellite fleet, Spacecom is propelling itself into a new orbit among the elite global satellite services sector. With proper planning and execution, the company will continue growing in the future - through alliances or organic growth - and Spacecom will remain on track to reach its goals. **MB**

ing user demand for mobile data. However, these operators will still face a new mobile capacity crunch by 2017 because the operators may not be planning sufficient investment in backhaul to meet anticipated demand over the next five years, the study said.

The study predicts that the total "funding gap" will reach \$9.2 billion or a shortage of about 16 petabytes in backhaul capacity. SA said global mobile data traffic has increased 13 times in the last five years. The research firm predicted that this figure is set to grow by five to six times by 2017.

According to the study, the Asia Pacific region will have a shortfall of US\$5.3 billion and 9.4 petabytes of capacity, followed by the Middle East Africa at US\$1 billion and 1.8 petabytes of capacity. Western Europe is also predicted to have a shortage of \$1 billion and 1.8 petabytes of capacity while North America is expecting a shortage of US\$650 million and 1.2 petabytes of capacity. The Caribbean and Latin America region will have a shortage of \$600 million and 1.1 petabytes of capacity, while Central and Eastern Europe will have a shortage of US\$ 580 million and 1 petabyte in capacity.



Only 27.5 percent of Asia's 4.2 billion people or 1.155 billion have regular access to the Internet. Broadband Internet remains a big driver for satellite services in Asia's remote regions.

Broadband to Drive Demand for Satellite Services

In the meantime, 3.8 million net new satellite broadband Internet access subscribers are expected globally by 2021. NSR projects that satellite broadband access subscribers will outnumber all other segments of the broadband satellite market by 2015. NSR predicts that the large majority of subscriber growth will come

from the North America and Western Europe followed by Latin America. But most of Asia's 51 countries will also be salivating for a cheaper and reliable satellite Internet service, especially in their unserved and underserved rural areas.

Today, only 27.5 percent of Asia's 4.2 billion people or only 1.155 billion regularly access the Internet, the latest *Global Internet Statistics*

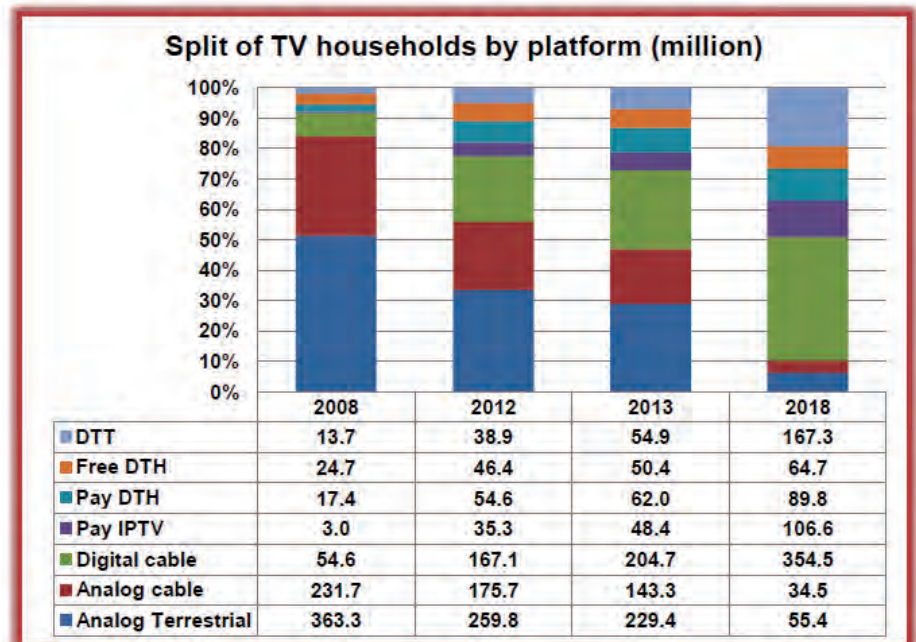
says. This reflects a wide room for potential customers, especially in rural Asia, who are looking forward to the promise of O3b Networks for a cheaper broadband Internet.

Barring unforeseen events, O3b's first four satellites are set to launch on June 24 on a Soyuz launch vehicle operating from the Arianespace's Guiana Space Center. O3b has already signed an estimated US\$700 million worth of contract before its launch. In addition to the first batch of four O3b spacecraft to be launched in June, another Arianespace flight is scheduled to orbit four more later this year, followed by an additional four in 2014.

Asian Operators Fleet Expansion

Asia-based satellite operators are embarking on extensive fleet expansion. Hong Kong-based Asia Broadcast Satellite will be launching in the second half of 2013, ABS-2 satellite at 75° E. ABS will also launch in 2015 two electric-powered satellites. The two satellites were jointly procured from Boeing Satellite Systems as part of a four-satellite deal with Mexican satellite operator, SATMEX in early 2012. The joint-procurement was a first of its kind deal which enable smaller satellite operators like ABS and SATMEX to pool their resources and get the economies of scale that previously only larger satellite operators enjoy.

Malaysian satellite operator Measat launched Africasat-1a in



Source: Digital TV Research Ltd

February, leasing some transponders to Azerbaijani operator Azercosmos who will be marketing the satellite as Azercosmos-1. It will be launching Measat-3b at 91.5°E in early 2014. Australian operator NewSat, will be marketing some transponders on that satellite as Jabiru-2. Asiasat will be launching Asiasat 6 and Asiasat 8 in the first half of 2014. Asiasat and Thaicom signed a deal in early 2012 to share capacity on Asiasat 6, which will also be known as Thaicom 7.

Australia's Newsat plans to launch in 2014 the Jabiru-1 satellite which will deliver over 7.6 GHz of capacity, providing high-powered Ka-band coverage to meet the growing demands from government and enterprise sectors across the Middle East, Asia and

Africa. Financing for the satellite from the Export-Import Bank was completed last March and announced at the Satellite show in Washington, D.C.

The large number of satellites coming on board in the Asia-Pacific region in the next two years has not dissuaded potential new entrants to the market. In March 2012, the Bangladesh government commissioned the international consulting firm Space Partnership International to do a feasibility study for its first satellite. The tiny emirate of Qatar is planning to launch in the next few years a fleet of six satellites starting with Eshail-Sat-1 in August this year.

The growing demand and the massive investments from satellite operators in the Asia-Pacific region makes it a very interesting region to watch in the next few years. MB

**Read a full version of this report at
www.satellitemarkets.com**

SatelliteMarkets.com has three distinct regional editions — Satellite Markets Americas, **Satellite Markets Asia-Pacific**, and Satellite Markets EMEA (Europe, Middle East and Africa).

Go to www.satellitemarkets.com to experience multimedia features such as searchable archives, videos, podcasts and more...!

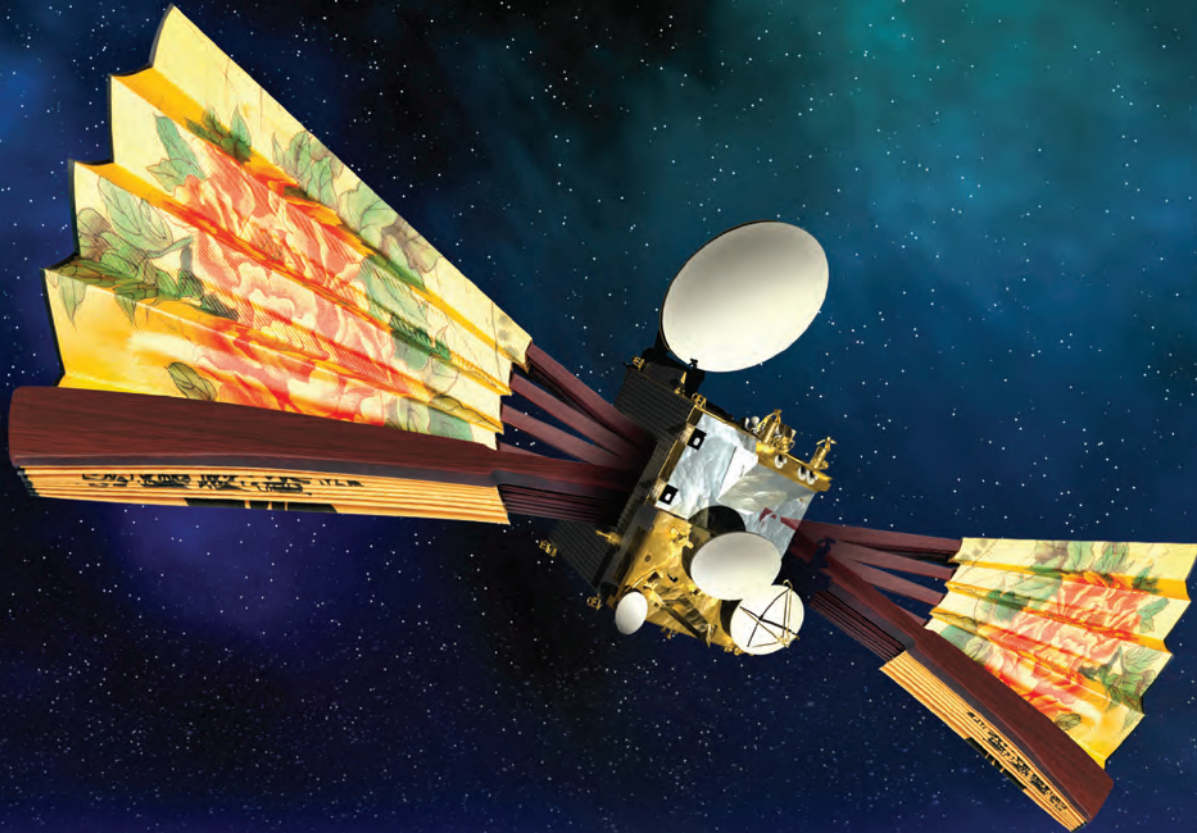
**GLOBAL COVERAGE,
REGIONAL FOCUS**

Peter I. Galace is contributing editor for Satellite Markets and Research.

He writes extensively on telecommunications and satellite developments in Asia and other regions for numerous publications and research firms. He can be reached at peter@satellitemarkets.com.



AMOS-4 IS COMING TO ASIA



EXPECT MORE FROM AMOS-4

Scheduled for launch in Q3 2013, Spacecom's AMOS-4 satellite will establish a new orbital position at 65°E, providing a full range of satellite services to Central and Southeast Asia, India, Russia, China and the Middle East.

The AMOS-4 multiple Ku-band and Ka-band transponders will create a powerful platform, enabling a wide range of cross-band, cross-beam connectivity options.

The addition of AMOS-4 to the Spacecom current constellation - AMOS-2 and AMOS-3 satellites co-located at 4°W, and AMOS-5 at 17°E - will enhance the company's position as a multi-regional satellite operator provider.

Pre-launch Ku-band on AMOS-4 is now available.

See us at

CommunicAsia

June 18-21, 2013
Booth # 1V3-01

AMOS
by Spacecom