

## News Briefs

**SkyLife**, the sole provider of digital satellite broadcasting services in Korea, has launched the SkyTouch interactive TV service.

The SkyTouch interactive broadcast is DVB-MHP compliant, a next generation digital broadcasting standard endorsed as the standard in Korea by the Ministry of Information and Communications.

SkyLife is one of the world's first satellite pay-TV operators to launch MHP broadcasts with conditional access.

The SkyTouch MHP iTV service is based on NDS VideoGuard conditional access, Alticast middleware and SkyLife Smart Box 2.0 set-top boxes manufactured by LG Electronics and Samsung.

The NDS set-top box testing and integration laboratory in Seoul was vital to the speed and success of the project.

The laboratory worked closely with SkyLife, Alticast, LG Electronics and Samsung for integration with the new set-top box models and advising on MHP specific issues that arose.

The SkyTouch iTV package includes interactive services in four genres and 14 categories. Subscribers can play iTV games, educational quizzes, and check their fortune.

In addition, subscribers can also receive real-time data iTV services such as weather forecasts, stock trading data and real estate prices.

The SkyTouch service was officially unveiled at a ceremony on May 21, 2003, in Seoul.

In future, SkyLife also plans to launch T-Government, an interactive TV service that will allow subscribers to search and request information from government departments and gain up-to-date information from the civil service.

## Satellite transponder capacity market - on growth path despite telecoms meltdown

**Caught in a downward** economic spiral, plagued by excess satellite capacity and subsequent falling lease rates, the satellite transponder capacity markets in Europe, the Middle East, and Africa (EMEA) nevertheless remain one of the brighter areas of the telecommunications industry.

"Overall, the satellite capacity market is faring reasonably well, especially when compared to the negative trends characterising other sectors of the telecommunications industry. Nearly all of the world's satellite operators remain relatively healthy," observes a new study by Frost & Sullivan (<http://www.frost.com>), the international market consultancy.

According to Patrick French, Industry Analyst at Frost & Sullivan, the commercial geostationary satellite transponder markets in the EMEA region continue to generate significant profits and are seeing consistent growth in the otherwise depressed telecoms industry. Revenues for this market, pegged at US\$3.79 billion in 2002, are projected to reach \$4.88 billion by 2009.

Any economic revival would augur well for these markets. However, for the moment, highly optimistic demand growth projections made in more buoyant times have left satellite operators with huge surplus capacity and have put significant pressure on lease rates, which in turn is driving down utilisation rates and slowing revenue growth in a traditionally high-margin industry.

Faced with the risk of significant price competition as market participants attempt to sell their transponders, operators are now looking for new ways to address the pressing problem of over-capacity.

Satellite operators will have to maintain stringent control over launching large capacity satellites in the next two years. Indeed, the trend toward limiting

new capacity is already being observed amongst some operators and is reflected in their decision to purchase only medium-sized satellites over the next few years. While increased efficiencies gained by migrating video broadcasting from analogue to digital signals are allowing more content to be broadcast per transponder, the digitisation and compression of video signals simultaneously continues to restrain transponder demand growth.

This is especially noticeable in these weak economic times where broadcasters are searching for means to reduce their expenses. Operators will have to achieve a balance between implementing cost-effective new technology that benefits content providers and avoiding a situation of reduced demand for capacity.

At the heart of various satellite transponder leasing applications lies the focal video market, which in 2002 accounted for 69 per cent of all transponders leased in EMEA. Video broadcasting applications are predicted to continue generating the majority of revenues in these regions.

The hugely hyped networking market remains relatively small, having failed to fully live up to expectations. Although networking applications are the fastest growing, particularly in Europe, the well-established video market continues to reign supreme in this and other regions. "Satellite operators must focus on the core video market and plan for much slower growth in networking services. Locking in the key video market is more important for long-term success than over-emphasising the networking market," states Mr French.

While satellites retain a virtual monopoly over broadcasting or point-to-multipoint applications, they face strong competition from terrestrial technologies in the struggle for an established presence in point-to-point applications.

Operators must find effective ways to increase the use of satellites in networking applications, which hold potential for significant future growth. For instance, leveraging their ability to provide wider area coverage will give satellite systems an advantage over terrestrial-based technologies.

Among important industry developments, the one that stands out is the increasing trend toward providing total solutions that encompass everything from the space segment to the ground hardware and to the software required for operating the network. In their quest to offer complete solutions, satellite operators are advised to enter alliances with highly experienced systems integrators that can help them offer true value to end users.

The market is likely to witness a spate of acquisitions and partnerships over the next few years. While many perceive mergers and acquisitions as the route to building much-needed global satellite networks, it is recommended that such activities continue for different reasons altogether.

Primarily, consolidations and partnerships must focus on the need to decrease the number of new and replacement satellites being launched.

"Acquisitions and partnerships among operators will allow for more rational fleet planning and a reduction in the launch of excess capacity," concludes Mr French. ■

### Frost & Sullivan

Frost & Sullivan is an international marketing consulting company that monitors a comprehensive spectrum of high-tech markets for trend, market measurements and strategies. This ongoing research is utilised to complement a series of research publications to support industry participants with customised consulting needs.

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**Following** the ministerial level meeting of the European Space Agency Council, Arianespace thanked ESA members and announced that it was pleased with the measures taken at the meeting. The measures taken at the ESA Council meeting fully comply with the recommendations submitted by the Arianespace Board of Directors. On April 24, the Board approved in principle the Ariane 5 support plan, and then on May 23 came out in favour of Arianespace operating the Soyuz launcher.

The Ariane 5 support program will enable qualification of the most powerful version of the launcher, the Ariane 5-ECA, increase government use of Ariane 5, and reorganize the launcher industry by setting up closer links between production and development. Furthermore, the collaboration established with Russia will enable Arianespace to operate the Soyuz launcher from the Guiana Space Center, Europe's Spaceport.

These decisions will enable Arianespace to meet all customer requirements offering a range of launchers – Ariane, Soyuz and Vega – covering all commercial and government mission requirements.

In addition, the decisions by ESA will bolster the quality of customer service offered by the company, and therefore its market position, which benefits the entire European space industry.

**Lockheed Martin** Commercial Space Systems (LMCSS) has been awarded a contract by JSAT Corporation of Japan to build its latest geostationary telecommunications satellite. The satellite, designated JCSAT-9, will provide satellite communications services throughout Asia and Japan following its scheduled launch in 2005.



*Thuraya-2 Payload Unit moves from Payload Processing to Rocket Assembly at Sea Launch Home Port*

## Sea Launch sails to equator for the launch of Thuraya-2

**At the end of May** (as the magazine went to press), the Odyssey Launch Platform and the Sea Launch Commander departed Sea Launch Home Port this week, for the launch of the Thuraya-2 satellite. Liftoff is scheduled for June 10, in a 44-minute launch window that opens at 6:56 am PDT (13:56:00 GMT).

The two Sea Launch vessels will travel from Sea Launch Home Port, in the Port of Long Beach, to the launch site on the Equator at 154° West Longitude, where a 72-hour countdown will begin upon arrival. Once the platform is ballasted to launch depth, the team will perform final tests on the rocket and spacecraft, and prepare for launch operations. The 200-foot Zenit-3SL rocket will lift the 5177 kg (11,413 lb) Thuraya-2 satellite to geosynchronous transfer orbit with a liftoff thrust of 1.6 million lbs.

Thuraya-2 was built by Boeing for the Thuraya Satellite Telecommunications Company, of United Arab Emirates, and

shipped from its satellite manufacturing facility in El Segundo, California. The GEO-Mobile (GEM) model satellite uses a Boeing 702 body-stabilized design and integrates a ground segment and user handsets to provide a range of cellular-like voice and data services over a vast geographic region.

Sea Launch successfully inserted the first Boeing GEM model, Thuraya-1, to orbit in October 2000. It is the heaviest commercial spacecraft launched successfully to date.

Thuraya-2 will enable Thuraya Satellite Telecommunications to continue to grow and expand its successful business, providing communications services to the people of 100 nations in the Middle East, Europe, North and Central Africa, and South and Central Asia. Thuraya's advanced satellite telecommunications provides blanket border-to-border coverage to nearly one third of the globe.

Based in Abu Dhabi, Thuraya offers uninterrupted and seamless services that link ur-

ban and rural areas, and ensure call continuity over regions with fragmented conventional telecommunication networks.

When it becomes operational in its orbital position at 95° West Longitude, Galaxy IIIC will provide widespread Internet, video, audio and data services to areas of the United States and Latin America.

The spacecraft will operate dual frequencies and includes 24 C-band transponders and 53 Ku-band transponders. Galaxy IIIC will be the second satellite Sea Launch has deployed for PanAmSat. The first was PAS-9 on July 28, 2000.

Built by Boeing Satellite Systems (BSS), Galaxy IIIC is a 702 model spacecraft, the largest and most powerful model in the BSS line, utilizing state-of-the-art technologies in propulsion, power generation and thermal control.

BSS is the satellite manufacturing arm of Boeing Space and Communications, a unit of The Boeing Company.

Visit [www.sea-launch.com](http://www.sea-launch.com) ■

## CASBAA announces satellite forum

**The Cable & Satellite** Broadcasting Association of Asia (CASBAA) is pleased to announce that the third annual CASBAA Satellite Industry Forum has been rescheduled to take place in Hong Kong on October 28, 2003.

The Forum will now be a curtain-raiser to the CASBAA 2003 Convention which runs from October 29-31.

The conference is themed "Why Satellite: Customers, Services, Profits". Sessions will cover issues for telecom customers, special needs of regional & domestic broadcasters, new applications and ideas, and how to finance new projects. The day will wrap up with a high-powered CEO Forum on "Keeping the Customer Satisfied".

"This is an exciting and challenging time for the Asian satellite business," said Simon Twiston Davies, CEO, CASBAA. "We have turned to the experts for the third year running to give us guidance on the issues that face all the players. This will be fun as well as informative."

"The CASBAA Satellite Industry Forum has become the pre-eminent event in Asia for the satellite industry," said Mr William Wade, Deputy CEO of AsiaSat and Chairman of CASBAA's Satellite Committee. "Last year's forum was Asia's largest gathering of the top level decision-makers who shape our industry, and we expect this year to be even better."

Confirmed speakers include CEO's and senior representa-

tives from companies in Asia, North America and Europe including Asiasat, ASTRO, Sony India, ESPN STAR sports, Shin Satellite and Boeing Capital.

The Forum offers many excellent opportunities for sponsors and has already attracted early signings from ABN Amro, Americom Asia-Pacific, Arianespace, Marsh Space Projects and RR Satellite.

For more information on the CASBAA Satellite Industry Forum 2003 please visit [www.casbaa.com](http://www.casbaa.com) where full details of the programme and registration procedures are accessible.

To find out about sponsorship opportunities contact Richard Broadhurst at [richard@casbaa.com](mailto:richard@casbaa.com) ■

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**Jeff Mathie**, President of Patriot Antenna Systems has announced the appointment of Jamie Bartlett as Vice President Canadian Operations.

Based in British Columbia, Jaime brings to this new position more than twenty-four years of satellite and retail electronics experience, specializing in marketing and service excellence.

Jaime was formerly the International Director of Sales for Norsat International, one of the world's leading suppliers of commercial LNBs. He was responsible for various strategic management positions within the different divisions of Norsat.

Previous to Norsat, Jaime was National Sales Manager for Aurora Distributing, the Canadian distribution arm of Norsat. He was responsible for the sales and marketing of the Norsat LNBs and transmitters.

Jaime's appointment to this key position solidifies Patriot's commitment to offer a full range of products, including Patriot's new line of high quality C-Band and Ku-Band LNBs.

**Mr Yoshio Utsumi**, Secretary-General of the International Telecommunication Union (ITU) has announced that Busan, (Republic of Korea) has been pre-selected as the venue for the next regional Asia event - ITU TELECOM ASIA 2004 - to take place in the second half of 2004, opening the way to detailed negotiations with the potential host country. ITU TELECOM ASIA 2004 will provide a platform for telecommunication leaders to share their ideas on future trends and discuss appropriate strategies for the development of information and communication technologies in the Asia-Pacific region. Busan is located in the Southern part of the country and is the second largest city with four million citizens.

## ViaSat awarded Phase II contract for private multimedia network in China for BAIIT

**The Beijing Application** Institute of Information Technology (BAIIT), China has awarded a US\$5.7 million contract to ViaSat Inc. for the Phase II expansion of its private network to over 300 remote sites. BAIIT will use StarWire\* VSAT networking products to build the network for video, IP data, and telephony services. The network is the largest VSAT network to take advantage of cost savings and bandwidth capacity increases provided by Paired Carrier Multiple Access (PCMA), a ViaSat technique that can increase bandwidth capacity by as much as 100 per cent.

StarWire advanced IP features combined with PCMA allow the BAIIT network to serve a much larger number of concurrent users than is possible with other VSAT equipment within the same satellite bandwidth. PCMA is a patented ViaSat technology that combines both send and receive signals into the same bandwidth. A terminal equipped with PCMA recognizes the signal that it sent and simply cancels out that information, leaving

it with the information received from any other transmitting location.

"Using StarWire advanced DAMA IP features, the BAIIT VSAT network can handle different types and volumes of IP-based application traffic among a large number of users on-demand, with unprecedented flexibility and efficiency," said Mr. Zhao, a senior engineer from the Communication Department of BAIIT.

"Furthermore, by deploying ViaSat patented PCMA technology, the operational cost saving is significant based on the reduced bandwidth utilization." BAIIT is building networks, integrated with terrestrial circuits, using fixed-beam, high-powered Ku-band satellite transponders to provide three different services:

- \* Television video gathering from remote sites;
- \* High-speed point-to-point IP data, and
- \* Full-mesh telephony services.

BAIIT, headquartered in Beijing and with branches in

most major cities in China, is a leading IT service provider, that operates and manages The Private Satellite Communication Network of BAIIT, an integrated communication platform that focuses on multimedia applications including video, data, and voice.

The company also provides telecommunication, computer networking, and video transmission service to China government agencies.

ViaSat produces innovative satellite and other wireless communication products that enable fast, easy, and efficient communications to any location. ViaSat has a full line of VSAT products for data and voice applications, and is a market leader in Ka-band satellite systems, from user terminals to large gateways. ViaSat has locations in Carlsbad, CA, and Norcross, GA, along with its Comsat Laboratories division in Clarksburg, MD.

Additional field offices are located in Boston, MA, Washington DC, Australia, Italy, China, and India. ■

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**During the night** of June 2, 2003, Starsem successfully launched the European Space Agency's Mars Express interplanetary probe to the Red Planet.

The 1678th flight of a Soyuz family launch vehicle was performed from the Baikonur Cosmodrome in Kazakhstan. The launch vehicle lifted off on schedule at 11:45:26 p.m. Baikonur time, 7:45:26 p.m., Paris time.

Starsem and its Russian partners report that the Fregat upper stage has accurately placed the probe and its lander -Beagle 2- on the targeted orbit. As planned, two successive Fregat burns have been performed to reach the right orbit: the first one occurred almost ten minutes after the lift-off, and was followed by a second ignition one hour and seven minutes later, lasting for almost 14 minutes.

One and a half hours after lift-off Mars Express was separated and injected on its way to Mars.

The first European mission to Mars will reach its destination in December 2003, after a six month cruise.

Soyuz sustained launch rate confirms its position as one of the world's primary launch vehicles. This rate also demonstrates Samara Space Centre's continuous production capacity, as well as the operational capability of launch teams at Baikonur under the authority of the Russian Aviation and Space Agency.

Starsem is the Soyuz Company, bringing together all key players involved in the production, operation and international commercial marketing of the world's most versatile launch vehicle.

Shareholders in Starsem are EADS (35 per cent), the Russian Aviation and Space Agency (25 per cent), the Samara Space Center (25 per cent) and Arianespace (15 per cent).

## Lockheed Martin Commercial Space Systems announces new team

**Lockheed Martin** Commercial Space Systems (LMCSS) president Ted G. Gavrilis has announced the following organizational changes and related promotions, effective immediately.

Rick Masoni, currently the executive vice president of LMCSS will also service as vice president, business development, succeeding Chuck Stees, who has been named chief financial officer for Denver-based Space Imaging Corp, a Lockheed Martin joint venture.

Masoni joined Lockheed Martin in early 2002. He previously served as executive vice president and vice president of engineering.

In his new role, he will be responsible for managing the company's business development team and its major functions, including strategic planning, capture strategy and identification of new technology requirements.

Masoni has over three decades of experience in satellite communications, spanning a

broad range of disciplines, including business development, sales and marketing, program management, competitive strategy, operational effectiveness, technology and product development. He previously held senior management positions with Space Systems/Loral and Hughes Space & Communications (now Boeing Space Systems).

Gavrilis also announced changes to the company's internal structure designed to further improve its competitive position in the marketplace. Specifically, LMCSS' government and commercial program units have been combined into a unified organization headed by Mark A. Pasquale, vice president, formerly director of commercial programs.

Additionally, the engineering and operations have been combined into one organization under Charles G. Krisch, vice president of engineering & operations.

"The consolidation of units

and senior management will result in greater synergy between these groups and a more streamlined organization that is market-focused and responsive to our customers," said Gavrilis.

Pasquale has nearly 20 years of spacecraft experience at Lockheed Martin, the last six in program management for Commercial Space Systems. Beginning his career on Lockheed Martin's MILSTAR program, Pasquale has served in a series of increasingly responsible positions in spacecraft integration and program management.

During his 23 years with LMCSS, Krisch has gained extensive cross-functional management experience including engineering, manufacturing, product assurance, operations and program management. He began his career in 1979 at the Valley Forge, PA Space Systems Division, progressing through a series of engineering and leadership assignments with increased responsibility. ■

## Sirius more than doubles subscribers in first Quarter 2003

### Satellite radio broadcaster

Sirius said it more than doubled its subscribers in the first quarter of this year to approximately 68,000, meeting an important target for the second company to offer nationwide satellite radio service.

"These excellent subscriber results indicate that we are beginning to see some traction in the marketplace," said Joseph P. Clayton, President and CEO of Sirius Satellite Radio. "With the introduction of our transportable 'Plug & Play' products from Kenwood and Audiovox hitting retail shelves this summer, we fully expect to exceed 100,000 subscribers this quarter, and reach our goal of over 300,000 subscribers by the end of the year."

Sirius also indicated that its brand awareness more than doubled since the beginning of the company's first brand advertising campaign in February of this year. These results were based on a category brand monitoring study conducted by Diagnostic Research and commissioned by Sirius.

Announcing its financial results for the quarter ended March 31, 2003, Sirius said it posted total revenue of \$1.6 million, compared to US\$33 thousand for the first quarter of 2002. Sirius reported a loss from operations of \$(99.1) million for the first quarter of 2003, compared to a loss from operations of \$(50.8) million for the first quarter of 2002. Adjusted EBITDA loss for the first quarter of 2003 was \$(75.0) million, compared with \$(36.2) million in the first

quarter of 2002. Adjusted EBITDA loss for the first quarter of 2003 excludes a \$256.5 million gain in connection with the elimination of approximately 91 per cent of the company's debt.

Sirius also reported net income applicable to common stockholders of \$51.9 million, or \$0.16 per share, for the first quarter of 2003, compared with a net loss applicable to common stockholders of \$(90.1) million, or \$(1.22) per share, for the first quarter of 2002. Included in net income applicable to common stockholders for the first quarter of 2003 was a \$256.5 million gain in connection with the elimination of approximately 91 per cent of the company's debt and a deemed dividend of \$79.5 million associated with the elimination of 100 per cent of its convertible preferred stock. ■