



According to Northern Sky Research the global satellite market will generate over 370,000 DVB-RCS and DOCSIS sites by 2008.

## Raise the standards



▶▶ **Northern Sky Research** has recently released its newest market survey and forecast report: 'DVB-RCS and DOCSIS: Second Edition: Reassessing the Viability of Satellite Standards'. The report offers a concise update of the standards-based satellite market in seven regions and for both enterprise and consumer market segments.

The report concludes that the market for standards-based broadband satellite solutions has become somewhat more positive than in early 2003. A range of Direct Video Broadcasting-Return Channel via Satellite (DVB-RCS) equipment is available today, and standards-based compliance is increasingly a requisite in many Request For Proposals (RFPs) distributed to the Very Small Aperture Terminal (VSAT) community. The increasing demand for DVB-RCS platforms also led two of the largest VSAT vendors (Gilat and ViaSat) to offer the standard as an option for their platforms. With over 16,000 DVB-RCS sites deployed as of late 2004, it is clear that DVB-RCS based platforms are no longer a niche in the broader broadband satellite landscape.

Data Over Cable Service Interface Specification (DOCSIS) over satellite deployment has also started through high profile contracts in the Middle East and North America. WildBlue appears ready for launch in 2005 with the promise of targeting 25+ million households in the US that have no access to cable modem

or Digital Subscriber Line (DSL) service. However while the market is brighter, serious questions remain regarding the precise competitiveness and growth potential for standards-based platforms. Prices are still considered to be too high, interoperability and plug-and-play functionality between vendors is not yet reality, and competition with successful proprietary platforms is ever increasing.

"NSR does see the long term benefits of a bi-directional satellite standard; ie, lower costs through multiple vendors, interoperability, and customer choice," according to Christopher Baugh, President of Northern Sky Research and author of the report. "Standards will likely generate more widespread acceptance once costs are significantly reduced, a large order for standards-based equipment is placed, standards are able to improve bandwidth efficiency, or a large player such as WildBlue builds a successful large-scale business based on a standards-based platform. It does appear that at least two of these market developments may actually transpire over the next 12-18 months; however, if none transpire, the standards-based VSAT market will only post marginal gains for the foreseeable future," states Baugh.

Based on extensive analysis and modelling, NSR expects that DVB-RCS solutions will continue to experience incremental growth over the next four to five years. This growth will be driven by an accelerated standardization and testing process, cost reductions, the expected inclusion of DVB-S2 and broader market acceptance for standards. However, while standards-based solutions will experience increasing shares of the overall market, proprietary platforms will still represent the majority of deployed sites by 2008. ■

"DVB-RCS solutions will continue to experience incremental growth over the next four to five years."

For additional information on this report please visit [www.northernskyresearch.com](http://www.northernskyresearch.com) or call Northern Sky Research at +1 407-352-5295.





## The other half of the sky

**In the transatlantic** commercial war between the two giants of the aerospace industry, a new element is on the table. European consortium Airbus is finally catching up with its US rival Boeing in what is seen by many as one of key areas in the battle for the supremacy of the commercial airline industry: in-flight entertainment and communications systems.

Airlines ordering Airbus aircraft will soon be able to select OnAir services, such as onboard mobile telephony and Internet access, as standard options for new aircraft deliveries. The service is provided by newly incorporated OnAir, a joint venture of Airbus and SITA INC, an Information Technology (IT) solutions provider to the air transport industry.

On January 27, the EU Commission's Directorate General for Competition gave the go-ahead to the joint venture, which also includes the integration of Tenzing, the Seattle-based software company which pioneered in-flight e-mail.

### The market

OnAir's goal is to provide voice and data communications for short and long-haul flights on Airbus and Boeing aircraft in a manner that facilitates passenger choice and is economically attractive to both consumers and airlines," said Francesco Violante, Managing

*On-board communications.*

*Photo courtesy of OnAir*



Airbus is finally fielding OnAir, its onboard communications service designed to follow the path laid down by Connexion by Boeing. With a significant difference, though: the accent this time is on mobile telephony. Giovanni Verlini, Editor of *Satellite Evolution Asia (SEA)*, reports.

Director of SITA INC and Chairman of the OnAir Board.

"We estimate that the number of passengers in the addressable market for onboard GSM telephony will be over 700 million by 2009. Meeting the communications needs of these air travellers will need to become part of an airline's passenger service offer," said Violante.

OnAir market research has identified in-flight use of mobile phones as the number one communications choice among airline passengers, particularly on short and medium-length flights.

### From in-flight testing to development

OnAir is moving quickly to commercialise the onboard mobile communications service, following successful ground and in-flight tests of a GSM solution in 2004. The only such tests to have yet been undertaken, Airbus GSM trials have demonstrated successful communication to and from personal mobile telephones on board to mobile and fixed telephones on the ground. Functional tests were performed in which several GSM telephones were used simultaneously for both voice communications and text messaging.

"Because of our partnership with the world's leading aircraft manufacturer we are confident that we will be able to satisfy aviation authorities that it is safe to use our service on board aircraft over both land and water," said George Cooper, a former British Airways pilot and airline management professional who is now Chief Executive Officer (CEO) of the Geneva-based company.

OnAir and Airbus have now entered the development phase and are in the process of selecting suppliers for the different service components, in preparation for a commercial offer in 2006. Detailed announcements regarding the aircraft equipment, air-to-ground link and ground infrastructure components of the service will be issued throughout 2005, upon selection of the respective business partners.

"There is considerable excitement among airlines about the OnAir offering. We are sensitive to airlines' need to keep onboard weight and cost as low as possible, and these are important considerations in the supplier selection process," said Patrick Gavin, Airbus Executive Vice-President for Customer Services.





### The system

OnAir is also aiming to make the service as friendly and as transparent as possible for passengers. For example, onboard communications will be invoiced as part of the regular mobile operator or Internet Service Provider (ISP) bill, at international roaming rates.

Cooper also said OnAir was keenly aware of the social factors involved, particularly in the use of mobile phones on long-haul flights. "We continue to research these issues but, in anticipation of such a need, our system will give cabin crew complete control of the system, allowing them, for example, to switch to SMS-only mode when it is 'night' in the cabin."

"At OnAir we believe that the extension of mobile communications to the aircraft cabin will become an important feature for both business and leisure travelers," said OnAir Board member and SITA Chairman, Paul Coby. The OnAir service portfolio will allow airline passengers to use their personal devices, such as mobile phones, Personal Digital Assistants (PDAs) and laptops, to communicate in a variety of ways during flights, ie, make and receive phone calls, send and receive text messages, read and send e-mail, access corporate networks, browse the Internet or chat. Some services, such as text messaging, are also provided through the in-flight entertainment system. ■

Paris-based Euroconsult reviews the year 2004 for the satellite business.

## An industry in transition



▶▶ **With consolidated revenues** estimated at US\$6.7 billion in 2004 by Euroconsult, the 36 operators of the Fixed Satellite Service (FSS) industry experienced a slight increase in revenues (+1.5 per cent) caused by the continuous depreciation of the US dollar with respect to their main trading currencies (Euro, Yen, and Canadian dollar mainly). At 2002 constant exchange rates of the various national currencies, FSS industry revenues were stable in 2004 at about \$6.2 billion. Profitability of the industry was safeguarded, in line with the reduction in operational and capital expenditures (opex and capex). The capex effort of the FSS industry should remain low in 2005 as only seven commercial orders were placed with satellite manufacturers in 2004 for an estimated market value of about \$1 billion. This is close to the industry's record low in 2002 of six units ordered while the recovery to 16 FSS satellites ordered in 2003 was the result of delayed orders from 2002 combined with replacement satellites for those lost at launch in 2002 and for those experiencing technical problems in orbit. Thirteen satellites were launched into geostationary orbit during the year 2004 for ten FSS operators, including the largest commercial satellite ever launched, Anik F2 of Telesat Canada, with a launch mass of 6,000kg.

The recent and massive interest private equity investors have shown for the FSS operators generated transactions totalling about \$10 billion in 2004 on PanAmSat, New Skies Satellites, Eutelsat, and Intelsat. FSS companies are attractive to LBO investors due to their predictable cash flows based on long-term bandwidth sale contracts and recurring capital expenditures. Following the private equity transactions of 2004, 2005 should see the preparations of public placements. PanAmSat's new owners are considering a \$1 billion Initial Public Offering (IPO) early in 2005 that would

allow paying the owners a special dividend of about \$200 million. The owners of New Skies and Eutelsat are also planning IPOs for 2005/06.

### Direct-to-users satellite services

Downstream in the value chain, direct-to-users satellite service providers are growing and multiplying, generating more demand for satellite capacity providers and for satellite manufacturers. Indeed, 13 of the 45 geostationary satellites currently under construction for launch in 2005 and 2006 are dedicated to Direct-To-Home (DTH) TV broadcasting, digital radio broadcasting, and fixed/mobile broadband services.

The US is currently the largest market for direct-to-users satellite services with four vertically integrated satellite broadcasters, EchoStar and DirecTV for digital TV services and XM and Sirius for digital radio services. The US is also the market where consumer two-way broadband satellite services should finally be launched nationwide in 2005 by WildBlue Communications with Ka-band capacity on Anik F2. 2005 will see a multiplication of initiatives in High Definition Television (HDTV). In North America, more than 100 HDTV channels are now broadcast by satellite TV platforms and offering continues to expand. Premiere in Germany and TPS in France should be the first satellite TV platforms to offer HD packages in Europe by the end of 2005. In Asia, Japan, Australia and Korea emerge as the three leading markets for HD introduction in the region. In Korea, the Skylife satellite TV platform introduced its first HD channel at the end of 2003.

Mobile broadband services should develop in 2005 with the launch of Inmarsat's first BGAN satellite permitting the introduction of 3G services, and the rollout of commercial services for mobile digital video broadcasting in Japan and South Korea by MBSat. ■

