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Industry Trends, News Analysis, Market Intelligence and Opportunities

The Price of 'Free-to-Air' Satellite TV

by Bruce Elbert
President, Application Strategy, Inc.
with Michelle Elbert

Satellite TV is the biggest money maker for the overall satellite industry, creating investment, subscriber base and wealth. It rests on the solid revenue footing from a food chain that ranges from the end user paying for subscriptions to networks that collect from advertisers and affiliates like TV stations and cable systems. However, we are witnessing a new business model that provides a free service to end users who only need to buy reception equipment consisting of a dish with a digital set-top-box. This is not unlike C-Band backyard dishes of the US from the early 1980s, before HBO began to scramble their signal.

Today, Free to Air (FTA) satellite TV is the legitimate successor to the 3-meter backyard dish. It relies on the same digital TV platforms that made DIRECTV, DISH and BSkyB into mega-businesses, but allows viewers to watch the programming without paying programming charges. Markets appeared primarily in Asia, Central Europe, and the Middle East; but, the size and participation in the FTA segment has yet to be appraised in scope and monetary terms. The purpose of this article is to review the nature and appeal of FTA as a first step in rendering it a true business opportunity.

Payment for satellite capacity comes from the program or network provider, who leases bandwidth and arranges for the uplink. The source of their money depends on the region and content, which can be derived from advertisers, governments,

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From the Editor

The Government/Military Market

Most of the attention this week will be at the NAB show in Las Vegas from April 18-23, but the headlines of the last two weeks were dominated in both the consumer and trade press by the attempted launch of a purported satellite by North Korea last April 4th. Also, there has been a major development in the military satellite sector with the recent announcement by the US Department of Defense (DoD) that it is recommending the cancellation of the US $ 26-Billion Transformational Satellite (TSAT) Communications Program in the 2010 Budget.

While the broadcast market may be the biggest market for satellite services, the military/government market has been driving demand for satellite equipment and services in the last few years. With recent threats from North Korea and Iran (which launched successfully its first domestically-produced satellite in February) and a new administration in place in Washington, there is understandable concern within the industry on the future of military satellite market. The cancellation of TSAT, which was to provide the high bandwidth required by the military for mobile applications, would require alternatives to meet the increasing bandwidth demands of the military. The consensus among those closely following this market is that TSAT was not the answer--it was an expensive solution. If all went to plan, the first TSAT satellite would only have come online in 2019 and may have been made obsolete by the time of launch. US $1.5 Billion has already been spent just in preliminary competing design studies by Lockheed Martin and Boeing. Comparatively, the 16-satellite constellation being envisioned by O3B Networks which aims to provide broadband access to the entire developing world is envisioned to cost only US$700 million--less than half what is cost for the preliminary study of TSAT.

Clearly in these financially challenging times, it would require a different mind set and discipline from the government and military to meet the increasing demands of its constituents. As one pundit put it, they have to start to think like the commercial sector and be very aggressive yet flexible enough to come up with scalable solutions to their needs amid shrinking budgets.

To shed light on the future of the government and military markets, I strongly recommend the forthcoming ISCe 2009 show to be held from June 2-4 in San Diego, California (see the feature on page 15) . I have attended every ISCe since it started eight years ago and it has carved a niche for itself by focusing on this important market. We hope to see you there.

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religious groups or other organizations that wish to transmit a message.

Asia

Nineteen years ago this month, the launch of AsiaSat 1 gave the start for STAR TV, the brainchild of Hong Kong billionaire, Richard Lee. The initial set of analog TV channels gave Asia its first regional broadcast and adopted the FTA model as the means to gain eyeballs. The service achieved quick popularity and, even though not financially rewarding in revenue terms, did make Richard Lee richer through the purchase by Rupert Murdock's News Corporation in 1992. STAR then moved aggressively to expand and ultimately converted to digital by 1997.

AsiaSat and other satellite providers established the vehicle for FTA in India and China, the biggest markets for satellite TV. The Indian model of Cable-Walla, wherein satellite dishes pull down FTA signals and distribute them within a community, has today facilitated over 200 channels of services to Indian households. A similar trend is evident in China, although the quantity of channels is about half that of India.

Subscription services were established in Thailand, Indonesia and Malaysia, but FTA services are definitely prevalent from satellites that cross borders. The presence of FTA services on Ku band satellites encourages locals to install Ku band dishes, which are much less obtrusive than their C band counterparts.

It was stated by a satellite executive of the region that families have responded to tough times by cutting back on satellite subscription services. This is a problematic trend for these services. At the same time, FTA services can reduce financial pressure on the consumer.

Middle East

The power of FTA in the Middle East and North Africa (MENA) was summed up by Jawad J. Abbassi, founder and general manager of Arab Advisors Group: "In other parts of the world, the 'Information Revolution' was played out on the Internet, but in the MENA region, it took place over Satellite TV." During the early 1990's, a media organization wanting to broadcast via satellite to the Middle East would need to do so from London. There were already satellite communication service providers in the Middle East at this time, but they were still relatively

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young companies. The Middle East Broadcasting Center (MBC) in the UK became the first free-to-air broadcaster over satellite to the Middle East. Most of the content on MBC was licensed or syndicated media of both Arabic and international origin.

Currently, there are over 450 FTA channels broadcasting on NileSat, ArabSat and Eutelsat. For the price of a low cost receiver, Arab households can tune into good quality FTA services. Operating costs are covered by various governments and private groups who are entering the market strategically; as a result, they may currently not be viable from a financial point of view. This may partly explain why there hasn't been a major consolidation or "shake out" amongst satellite TV providers in the region.

As a result of the plethora of FTA services in MENA, the adoption rate for satellite TV is upwards of 90%. Like Cable-Walla in India, viewership increases because the satellite signals also are picked up by local providers and distributed to homes over ad-hoc terrestrial networks. The adoption rate for satellite TV systems in Lebanon and Egypt appears to be lower than other parts of MENA, due in part to the more densely populated parts of these countries.

"..Free-to-Air satellite TV is potentially a powerful disruptive force in coming years, primarily because of the allure to the viewer in developing and developed regions..."

The number of FTA channels in the MENA region has grown at a staggering rate; however, advertising revenues are relatively minor and may represent an untapped potential for new formats and operators.

Europe

Satellite-delivered free TV channels are very popular in Europe, particularly among expat communities. There are approximately 40 million installed units in the European market, broken down into the set-to-box (STB) that is generic and those that are specific to the service provider. Under the former, a viewer purchases the unit from any distributor and can watch FTA channels delivered by a number of satellites. With regard to the latter, the viewer must obtain the STB from the service provider, who maintains overall control of delivery. This variant is called Free To View (FTV). Complicated copyright issues in Italy and Austria restricted a sizable chunk of programming to FTV rather than FTA. FTV STBs are equipped with SIM cards, needed to unscramble the signal, which are illegal to export outside these countries.

The UK is something of an anomaly as the pay service, BSkyB, is the dominant player in that market with nearly 10 million satellite subscribers. (There are another four million subs indirectly subscribed through terrestrial cable systems.) FTA could very well see a boost in the UK market with the introduction of Freesat, a joint venture between the BBC and ITV that began in the spring of 2008. It's interesting that both BBC and ITV have independently been providing FTA programming for roughly 5 years now, but licensing and approval delays have kept them from launching a combined brand until last year.

The FTV move by BBC and ITV is a good example of how copyright issues are faced by European providers. Previously, the bulk of those channels were broadcast over the Astra 2A satellite, which has a large footprint providing a strong signal not only to the UK but to most of Europe. Most, if not all, of the channels were moved to Astra 2D, whose beam is focused on the UK market.

The challenge in Europe is that the satellite spectrum is rather crowded and not every potential FTV, FTA and pay service (in its associated language) can be accommodated. Even with the extremely focused footprint of Astra 2D, you can still receive a signal throughout all of France and Iceland as well as parts of Spain, Italy, Germany, Denmark, Norway and Greenland with a dish that's still reasonably small.

North America

Despite having potentially 500 FTA satellite channels available, the US has been slower to catch on to this platform than the rest of the world. The one area where the FTV model is provided is by World TV, an offering by GlobeCast. World TV has a split of approximately 2/3 FTV and 1/3 premium subscription services. There is a flat monthly charge for the FTV portion, in addition to equipment expenses. FTA development is practically limited in Canada because satellite spectrum that is committed to pay subscription services.

There are a number of FTA services provided by US public institutions wishing to deliver information and a message to segments of the US population. This includes the Public Broadcasting Service, NASA TV, Pentagon TV, and various religious services from the LDS Church, the Catholic Church and the long-standing Christian channels from Trinity Broadcasting.

Latin America

A very visible feature in large cities in Latin America of the early 1990s was the big C-band dishes seen on roofs of apartment buildings and hotels. At the time, there were 1.5 million of these satellite master antenna TV (SMATV) dishes in service. This is giving way to more common use of Ku-band DTH services from DIRECTV, SKY and others. However, SMATV and wireless cable TV services are still popular in the larger cities in Latin America as these promote the payment of subscriber fees to investors. FTA hasn't caught on as well over South America, although Mexico and Brazil seem to be strong purveyors of FTA with approximately 83 and 150 channels, respectively.

Summing Up

FTA satellite TV is potentially a powerful disruptive force in coming years, primarily because of the allure to the viewer in developing and developed regions. If a third party is willing to pay for the content and transmission, the receiving end is going to be there in ever-increasing numbers.

Bruce Elbert has over 30 years of experience in satellite communications and is the President of **Application Technology Strategy, Inc.**, which assists satellite operators, network providers and users in the public and private sectors. He is an author and educator in these fields, having produced seven titles and conducted technical and business training around the world. During 25 years with Hughes Electronics, he directed major technical projects and led business activities in the U.S. and overseas. He is the author of The Satellite Communication Applications Handbook, second edition (Artech House, 2004). Web site: www.applicationstrategy.com Email: bruce@applicationstrategy.com

Michelle Elbert is the Director of Marketing for **Satellite Markets and Research** and a consultant with Application Technology Strategy, Inc. She can be reached at michelle@satellitemarkets.com

Calendar of Events

April 18-23, 2009 **NAB 2009** Las Vegas Convention Center, Las Vegas, Nevada, USA Tel: +1 (202) 429-5300 e-mail: register@nab.org web: www.nabshow.com

June 2-4, 2009 **ISCe 2009** San Diego Marriot Hotel and Marina, San Diego, California, USA Tel: +1 (562) 901-9191 Fax: +1 (562) 901-9192 e-mail: info@isce.com web: www.isce.com

June 16-19, 2009 **CommunicAsia 2009** Singapore Expo Convention Center, Singapore, Tel: +65- 6233-6638 web: www.communicasia.com

September 7-10, 2009 **World Satellite Business Week 2009** Paris, France Tel: +33-(1) 49 23 75 2 4 E-mail: mandeng@euroconsult-ec.com web: www.satellite-business.com

September 10-15, 2009 **IBC Conference and Expo 2009** RAI EXhibtion Center, Amsterdam, The Netherlands Tel: +44-(0) 20-783-24100 e-mail: show@ibc.org web: www.ibc.org/

September 29-October 1, 2009 **APSCC 2009 Satellite Conference and Exhibition**, Kuala Lumpur, Malaysia. Tel: +82 31 783 6246 e-mail: info@apsc.or.kr web: www.apscc.or.kr

October 7-11, 2009 **CeBIT Eurasia Bilisim International Trade Fair for Information Technology, Telecommunications, Software + Services**, held in conjunction with **CeBIT Broadcast, Cable+Satellite Eurasia**, Istanbul, Turkey Tel: +90 (212) 334 69 69 Fax: +90 (212) 334 69 70 e-mail:info@cebitbilisim.com web: www.cebitbilisim.com/index.html and www.cebit-bcs.com/en/index.html

October 13-14, 2009 **Satcon 2009**, Javits Convention Center, New York City, USA, Tel. +1-203-371-6322 E-mail: info@jdevents.com web: www.satconexpo..com

Products and Services Spotlight

A guide to key products and services at upcoming trade shows. This month we are featuring products and services that will be showcased at the NAB 2009 exhibition in Las Vegas, Nevada. from April 18-23.

*Sky*WAN® IDU 7000 series – The new standard for MF-TDMA performance

ND SatCom *Sky*WAN® is an advanced MF-TDMA VSAT system for establishing wide area corporate networks. The *Sky*WAN® IDU 7000 series introduces new members of the ND SatCom *Sky*WAN® product family, providing a highly efficient and robust modem technology platform for the next generation of satellite networks.

In comparison with other satellite modems, the *Sky*WAN® IDU 7000 terminal series prevails due to distinct features such as:

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- Enabling mobile and transportable applications with the smallest antennas and highest performance
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  - o Risk mitigation of unauthorized access
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- Seamless integration with terrestrial networks using the latest IP capabilities and load balancing features

The new key capability is the introduction of patented Turbo-Φ Coding, which enables reduction of antenna size and RF equipment up to 50% or almost doubles the available data rate with existing RF equipment, and data rates up to 10 Mbit/s.

This new series suits various kind of market segments with the need for reliable, secure and mesh communication such as the government & defence arena, Air Traffic Control, energy, all kinds of enterprises with remote sites and last but not least the broadcast & media world. Due to its inherent flexibility and scalability the new *Sky*WAN® IDU 7000 series will enable users to establish the best possible communication solution in their environment.

At NAB 2009, visit ND SatCom at booth # OE 402.

San Francisco International Gateway

SAN FRANCISCO INTERNATIONAL GATEWAY (SFIG) is a commercial teleport located in Northern California.

SFIG's 24x7 technical facility consists of 19 satellite earth station antennas, of various sizes from 13.0 meters to 2.4 meters to serve uplink and downlink requirements for C and KU band satellites. SFIG can access any US domestic satellite as well as Canadian and Mexican satellites plus most Pacific Ocean satellites up to 169 degrees E longitude.

The Master Control room is equipped with Miranda iControl for monitoring and quality control of incoming and outgoing feeds.

SFIG provides teleport services such as:

•Third party antenna and equipment co-location;

• Adhoc or occasional use services for uplink and downlink of video/ audio programs;

• Full-time DTH platform lease on Galaxy 19, the premier broadcast satellite for North America as well as on PAS 8 Ku-Band for Australian DTH platform ;

• Full-time transmission of video, telephony, IP and data circuits to satellites operated by Intelsat, New Skies, SES Americom, SatMex, Telesat and other satellite operators.

• Bundled telecommunications services leveraging ABS-CBN's telecom capability using its NACT switch located in One Wilshire, Los Angeles;

• Standard teleport services including uplink and downlink as well as turn around services to fiber or other satellites;

• Asian teleport located in Manila, Philippines for additional turnaround and broadcast services;

• IPTV distribution; and

• Asset sales.

At NAB 2009, visit SFIG at the Atlanta DTH booth # C 948.

The SPACECONNECTION

The SPACECONNECTION is the industry's leading independent provider of C-and Ku-Band satellite space segment. With a satellite inventory assembled from across all the major satellite operators around the globe, The SPACECONNECTION offers space segment in time increments from five minutes to fifteen years and in bandwidth increments from 100 KHz to 36 MHz or greater. The SPACECONNECTION is also an active remarketer and reseller of unused satellite capacity provided by customers and vendors. For more information go to: www.thespaceconnection.com

Founded in 1987, The SPACECONNECTION remains a leading supplier of satellite capacity for occasional use newsgathering, sports contribution feeds and special events for broadcasters, cable networks, media companies and enterprise and government clients. The company also provides full-time program distribution to cable television and closed circuit television networks for religious, educational and gaming clients. The SPACECONNECTION, Inc., a wholly owned subsidiary of Telesat, is a professional communications company that provides satellite-related transmission services across the United States and around the world.

The SPACECONNECTION maintains its corporate headquarters at:

10530 Victory Boulevard
North Hollywood, CA 91606
Phone: +1.818.754.1100 e-mail: info@thespaceconnection.com

The SPACECONNECTION has an East Coast office at:

50 Washington Street Suite 724/725
Norwalk, CT 06854
Phone: +1.203.354.4515 e-mail: mailto:mkg@thespaceconnection.com

The SPACECONNECTION also has a Canadian office at:

1601 Telesat Court
Suite B1.07
Ottawa, Ontario K1B5PA
Phone: +1.800.565.1471 e-mail: opscanada@thespaceconnection.com

At NAB 2009, visit The SPACECONNECTION at the Telesat booth # C 4646.

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Application Technology Strategy, Inc., (ATSI), is the satellite consulting firm founded by Bruce Elbert, leading satellite expert and consultant, technologist, educator and author of standard industry books.

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Rockwell Collins to Acquire DataPath, Inc.

Rockwell Collins, Inc. signed an agreement to acquire DataPath, the company announced April 1. According to the terms of the agreement, Rockwell Collins will acquire all outstanding shares of DataPath, Inc. in a cash transaction worth approximately $130 million. Of that amount, approximately $110 million is associated with existing DataPath debt and other obligations. The transaction is expected to be completed in about 45 days and is subject to customary conditions to closing, including regulatory and other approvals.

DataPath has more than 600 employees around the world, and it designs, integrates, manages and deploys satellite communication (SATCOM) systems for military and commercial customers. DataPath and its subsidiary, **Swe-Dish AB**, a satellite manufacturer based in Stockholm, will operate as wholly owned subsidiaries of Rockwell Collins.

Inmarsat Completes Acquisition of Stratos

Inmarsat completed the acquisition of **Stratos Global Corp.** April 15, after obtaining regulatory approvals from the **U.S. Federal Communications Commission** and the **Canadian Minister of Industry**.

Stratos will become a wholly owned operating division of the Inmarsat group managed by the existing Stratos management team and reporting directly to Inmarsat at a corporate level. As part of the deal, Inmarsat has segregated its wholesale operations from Stratos operating divisions and will remain committed to a primarily indirect distribution model through its existing channels to market. The acquisition of Stratos initially was funded in December 2007, and no additional financing was required to complete the transaction, according to Inmarsat.

Meanwhile, Inmarsat has acquired a 19 percent stake in the Canadian-based **SkyWave Mobile Communications**, the company announced April 2. As part of the investment investment, SkyWave will acquire assets relating to the GlobalWave satellite low data rate products and services business from **TransCore** and will enter into a sales distribution relationship with TransCore focusing on the North American trucking and rail segments of the market, designed to leverage TransCore's presence in those segments.

FCC Grants Swe-Dish License for Operation on U.S. Satellites

Swe-Dish Satellite Systems was granted **U.S. Federal Communications Commission** (FCC) licenses for its Drive-Away CCT120 and SuitcasexAE terminals, Swe-Dish announced April 13. The licenses authorize the Swe-Dish terminals for all U.S.-licensed satellites listed on the FCC's permitted space station list, enabling the Stockholm-based company to deploy its systems for U.S. customers.

IDC Reports 18 Percent Revenue Increase

International Datacasting Corp. (IDC) saw yearly revenues increase by 18 percent at Canadian $29.1 million according to its 2009 year-end financial reports released April 7. The company also released its fourth quarter 2009 report, which showed a drop in quarterly revenue at Canadian $6.4 million, compared to $7.5 million recorded in the fourth quarter of 2008.

U.S. DoD Recommends TSAT Cancellation

U.S. Defense Secretary Robert Gates recommended the termination of the **U.S. Air Force**'s $26 Billion Transformational Satellite (TSAT) program. High costs, technological risk and development delays were cited as primary reasons for the program's cancellation, according to the Department of Defense (DoD). The TSAT program consisted of a six-satellite constellation, satellite operations centers, a mission operations system and ground gateways. Teams led by **Lockheed Martin** and **Boeing** were in competition for its primary contract.

Contract Signings

•**Liberty Sports Group** signed a multi-year contract with Intelsat for satellite capacity to distribute its three regional sports networks. Liberty will use capacity on **Intelsat**'s Galaxy 17 satellite, located at 97 degrees West, to broadcast the FSN Northwest, FSN Pittsburgh and FSN Rocky Mountain channels, including a full-time high-definition channel for each network, to U.S. audiences.

•**TeleCommunication Systems Inc.** (TCS) received a $14.9 million contract order from the **U.S. Army** to provide Transportable Ground Receive Suites and related spare parts to support the Global Broadcast Service (GBS).

•**ViaSat** signed a $1.8 million contract with Canadian provider **Juch-Tech** to expand VSAT services to Africa.

•**Harris Corp**. received a $150 million contract from the **U.S. Army** for the supply of additional wideband tactical satellite radio systems. Harris' RF communications division will provide the Army with AN/PRC-117G

multiband manpack radios, related spare parts and support services, according to the **U.S. Department of Defense**.. The order was placed through an existing indefinite-delivery, indefinite-quantity contract with a maximum value of $500 million, if all options are exercised.

•**Comtech EF Data Corp.** has won a $2.1 million order from the U.S. military for satellite commu-nications equipment that will be used to upgrade existing battlefield systems to operate on the *Wideband Global Satcom* (WGS) system.

•**Orbcomm** entered into a services agreement with **General Electric Asset Intelligence** (GEAI) to be the sole provider of satellite, cellular and dual-mode telematics, and machine-to-machine data com-munications on all subscriber communicators sold or managed by GEAI.

•**Com Dev USA** was awarded a $20 million contract by Boeing to supply passive microwave components for the next generation of **NASA**'s Tracking and Data Relay Satellites (TDRS).

•**Gulfcom** signed a five-year distribution agreement with **SES New Skies** to leverage a full transponder of capacity aboard SES' AMC-3 satellite, which will service the Caribbean region.

•**DataPath, Inc.** has been awarded $35 million by the **U.S. Army** for Ka-band spares kits for DataPath® *Satellite Transportable Terminals* (STTs).

GlobeCast renewed its lease with Eutelsat to use five Hot Bird transponders for broadcasting in Europe, North Africa and the Middle East.

•**ND SatCom** received a 2-year frame contract from **Q-KON**, a l service provider based in South Africa, Nigeria, and the Democratic Republic of Congo. Q-KON, which operates ten VSAT networks over nine satellites from seven teleports, will procure new generation *Sky*WAN® units for up to 1000 sites all over Africa, which will be used mainly for organizations in mining, oil & gas, banking, and transportation.

•**Satlynx** purchased of a significant volume of capacity on the Arabsat-5A satellite available for commercial service early in 2010. The satellite will deliver much needed capacity over the entire Africa and Middle East (MEA) regions, as well as most of Central Asia.

Executive Moves

•**Lt. Gen. Michael A. Hamel** (U.S. Air Force, retired) has joined the **Orbital Sciences Corporation** as Senior Vice President of Corporate Strategy and Development. Prior to joining Orbital, Mr. Hamel was **Commander of the Air Force Space Command**'s **Space and Missile Systems Center** (SMC) and Air Force Program Executive Officer (PEO) for Space from 2005 until 2008.

Michael A. Hamel

•**Globecomm Systems Inc**. has appointed **Andrew Silberstein** as Vice President, Hosted Services for Globecomm Network Services.

•The **World Teleport Association** (WTA) announced the appointment to its international Board of Directors of **David Justin**, Senior Vice President, **GlobeCast**; **Serge Van Herck**, Chief Executive Officer, **Newtec**; and **Norberto Vitale**, Chief Executive Officer, **Teleport Interna-cional Buenos Aires**. After completing the terms of three Directors who have resigned from the Board, all three will run for election in their own right later in 2009.

In addition to the newly appointed Directors, WTA's Board includes WTA Chairman **Chris Russell**, Partner, **Henley Partners International**; WTA Secretary General **Andrew Stimson**, Director Global Sales Management, **Intelsat**; **Gary Hatch**, Chief Executive Officer, **ATCi**; Michael Noon, Vice President, Terrestrial Systems Operations, **SES Americom**; Anita Currie, President, **Edge Consulting**; Timothy Shea, Managing Director, Asia-Pacific, **Telesat**; Nick Thompson, Managing Director, **Arqiva Satellite & Media**; M.N. Vyas, Director, **Essel Shyam Communication Limited**; **Malcom Warren**, Director Asia-Pacific, **ViaSat, Inc.**; and **Yoshihiro Yokoyama**, Secretary-General, **WTA-Asia**.

•**Hughes Network Systems** has appointed **John Cruickshank** as sales director of **Hughes Europe**, the company's European opera-ting and sales unit.

•**SingTel** subsidiary **Optus**, has named **Murray King** CFO. Optus also promoted **Michael Smith** to the position of managing director of its consumer business unit.

Interview with Intelsat CFO Michael McDonnell

Washington, D.C.-headquartered Intelsat, is the largest satellite operator in the world with 51 satellites and annual revenues of US $ 2.3 Billion in 2008. However, it is also the most leveraged company in the industry with US $ 15 Billion in long-term debt. Intelsat's Executive Vice-President and Chief Financial Officer Michael McDonnell spoke with Satellite Markets and Research Editor-in-Chief Virgil Labrador on Intelsat's financial position and other issues. Excerpts of the interview:

The global economic downturn is of primary concern these days, how is Intelsat positioned to face the economic downturn?

In terms of looking at the economy, we have not seen a discernable impact on our business, although we remain cautious. In many cases, our capacity supports mission critical applications for media programmers, corporate networks and governments, so this provides some resistance to recession pressure. We believe our global footprint and our diverse customer base, along with the diversity of regions in which we operate, lowers our overall business risk when economic times are tough. When we look at the company as a whole, business has held up well but again, we remain cautious and continue to monitor the global economic situation very carefully.

Do you see any opportunities for Intelsat in this challenging economic environment?

We are focusing on staying very close to our customers, and making sure that we are right sizing our inventory to be able to support our customers in their business initiatives. Again, we have not seen a discernable impact on our business from the economic downturn and so opportunities continue to exist for us.

Intelsat is heavily leveraged with about $15 Billion in long-term debt according to your most recent financial report. In comparison, your closest rivals, SES and Eutelsat, among others, have relatively lower debt loads. Is your higher debt a detriment in the increasingly competitive environment in the global satellite industry?

We do not see any evidence of that. In our year-end conference call, Intelsat reported the highest annual revenue growth rate of any of the global or super regional operators. Although our debt is higher than the other operators, we are extremely disciplined in our approach to operating our business, and very creative in the strategies we use to grow. The New Dawn joint venture, which we announced in December 2008, is a great example of Intelsat creatively deploying capital to address a high demand region with new satellite capacity. Also, it is important to note that we have no material debt maturities prior to 2012 and most of our debt matures well after that date. And we are doing things today to actively manage our capital structure, such as the opportunistic transaction that we did during the first quarter of this year.

What market segments will Intelsat be focusing during this downturn and will we see any growth in any specific market?

Intelsat operates globally and we plan to continue serving our network, media and government customers. In 2008, our business increased throughout all of our business segments, with growth from our Government and Network Services leading the way with 18% and 16% growth respectively.

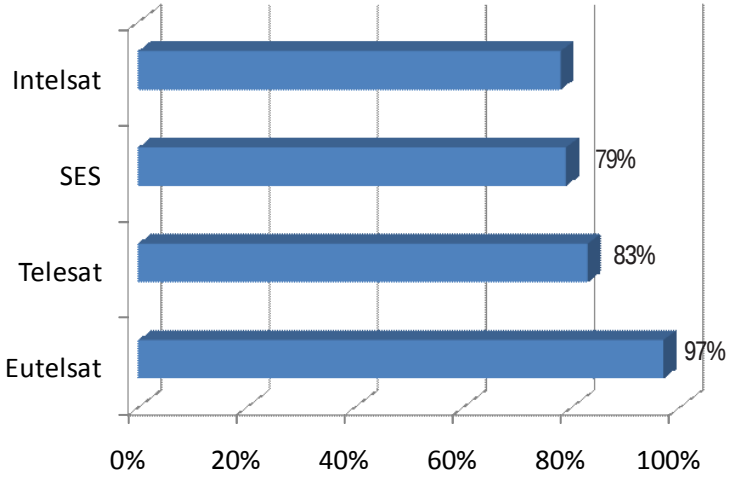
You've worked in the satellite industry before and played an important role in Echostar, how do you think the satellite industry as a whole will fare during this downturn?

Other than the technology involved, the DBS business has little in common with the fixed satellite services industry. The Intelsat business is highly diversified from a customer, regional and application basis. The service that we provide is critical to our customers. This provides a degree of resilience that is an asset in the current environment.

Vital Statistics

Transponder Fill Rates

Transponder fill rates are one of the key indicators of the overall health of the satellite sector. Despite the global economic recession, transponder fill rates are at an all-time high. High utilization rates ususally means higher transponder prices and continued orders for backup and replacement satellites--which is usually good news for the manufacturing and launch services sector as well.



Source: Company Sources © Graphics by Satellite Markets and Research

For more Vital Statistics go to: www.satellitemarkets.com/node/9

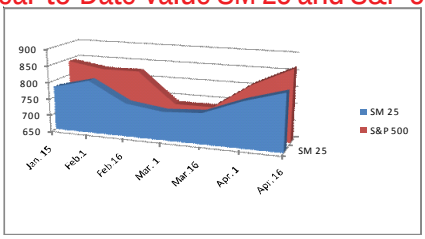
The Satellite Markets 25 Index™

Company Name	Symbol	Price (Apr 16)	% Change from 2-Weeks Ago	52-wk Range	% Change from 52-wk High
Satellite Operators					
AsiaSat	1135.HK	8.25	+2.86%	4.61-15.00	-44.71%
Eutelsat Communications	ETL.PA	15.46	-4.26%	14.40-20.50	-24.59%
Hughes Communications Inc.	HUGH	16.28	+33.22%	8.25-55.99	-70.92%
Inmarsat	ISAT.L	469.00	-1.49%	300.00-585.00	-19.83%
SES	SES.F	14.28	-2.80%	11.36-16.81	-18.53%
Satellite and Component Manufacturers					
Boeing	BA	38.39	+8.20%	31.40-88.29	-56.52%
COM DEV International Ltd.	CDV.TO	3.60	+9.09%	2.21-3.95	-6.01%
Lockheed Martin Corp.	LMT	77.58	+20.07%	63.10 -120.30	-35.51%
Loral Space and Communications	LORL	24.58	+17.52%	6.02- 30.52	-6.73%
Orbital Sciences Corp.	ORB	13.89	+6.04%	13.60 -27.89	-50.20%
Ground Equipment Manufacturers					
C-COM Satellite Systems Inc.	CMI.V	0.30	-10.00%	0.15-0.50	-33.33%
Comtech Telecommunications Corp.	CMTL	28.44	+14.07%	36.51-51.21	-44.46%
CPI International, Inc.	CPII	11.11	+23.58%	5.07-16.02	-43.88%
EMS Technologies, Inc.	ELMG	18.96	+8.15%	16.20-31.78	-35.62%
Viasat	VSAT	22.40	+6.81%	15.10-28.07	-20.20%
Satellite Service Providers					
Gilat Satellite Networks Ltd.	GILT	3.61	+4.33%	2.17-11.20	-67.77%
Globecomm Systems Inc.	GCOM	6.72	+3.7-%	3.96-10.94	-38.57%
Internatinal Datacasting Corp.	IDC.TO	0.34	+7.81%	0.15-0.69	-42.50%
ORBCOMM Inc.	ORBC	1.60	+6.66%	1.22-6.87	-76.71%
Skyterra Communications	SKYT.OB	2.87	-4.52%	3.55-8.85	-67.57%
Consumer Satellite Services					
British Sky Broadcasting Group	BSY	26.49	+2.27%	19.90-46.30	-45.81%
The DIRECTV Group	DTV	25.50	+8.69%	17.70-29.10	-40.58%
ECHOSTAR Communications	DISH	13.98	+21.35%	8.34-36.11	-61.42%
Globalstar, Inc.	GSAT	0.60	+50.00%	0.15-7.98	-84.46%
Sirius XM Radio Inc.	SIRI	0.40	+17.64%	0.05-3.89	-85.80%

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 Market Index is January 2, 2008--the first day of operation for Satellite Market and Research. The Index equals 1,000. The Satellite Market Index™ provides an investment benchmark to gauge the overall health of the satellite industry.

Comparison of Indices	Index value (Apr. 16'09)	Percentage Change 2-Weeks Ago	Jan. 2 '08
Satellite Markets 25 Index™	819.23	4.22%	-18.08%
S & P 500	865.30	6.64%	-59.48%

Year-to-Date Value SM 25 and S&P 500



Featured Event

ISCe 2009 Conference to Focus on Government Satcom

Conference to Focus on New Administration Priorities and How They Will Reshape Government SATCOM Spending

The 8th annual ISCe Conference. ISCe 2009,scheduled for June 2-4 in San Diego, California, will focus on SATCOM solutions for homeland security, disaster recovery and support for warfighters in the pursuit of victory. ISCe 2009 will provide attendees with unprecedented access to key military and civil agency decision makers.

With a new Administration in Washington, D.C., spending priorities across the board are being analyzed and reviewed. The results of this scrutiny could have significant ramifications on the DoD's requirements for satellite communications. ISCe 2009 will offer two information-packed programs specifically geared to this changing procurement landscape:

- Military and intelligence applications
- Homeland security, continuity of government and disaster recover;

Through keynote speakers, panel discussions and workshops, attendees at ISCe 2009 will have an opportunity to explore how rising demand for services, short-term stimulus spending and shrinking long-term budgets will reshape the military SATCOM landscape in 2009 and beyond. Keynote speakers include:

- **Lt. Gen Russel Honore**, US Army (Ret) – Former Commander Joint Task Force Katrina
- The Honorable **Matthew Bettenhausen** – Acting Cabinet Secretary, California Emergency Management Agency

The Navy SATCOM Users Workshop, organized by SPAWAR and the Satellite Industry Association, will once again close out the three days of ISCe with presentations, including: Navy Commercial SATCOM Background/Strategy; CBSP, the Navy's newest Commercial SATCOM System; Shipboard Networks; Airborne Networking; Navy Expeditionary Combatant Command; and a keynote address by **Dr. Kurt Fiscko**, Future SATCOM Chief Engineer, PEO C4I PMW/A 170 .

"This is a pivotal year for satellite communications with the many changes brought on by the new Obama Administration. We are excited about the ISCe 2009 program and the opportunities it presents to take stock of the significance of this change for DoD SATCOMs needs and requirements. The caliber of speakers and participants that are stepping up to make this an exceptional learning and networking opportunity is outstanding," said Art Paredes, President and CEO, Hannover Fairs USA, Inc.

"In addition to the information-packed sessions on all three days, we're pleased to offer – for the first time – two training workshops as a pre-day to ISCe. We're delighted to be working with such prestigious organizations as the International Association of Emergency Managers, GVF, the UCLA Extension, and Application Technology Strategy Inc. in offering these unique opportunities as part of ISCe," Paredes added.

For more information on ISCe call +1 (562) 901-9191
e-mail: info@isce.com or go to: www.isce.com

Company Profile

ND SatCom

ND SatCom, an SES ASTRA company, is a leading global supplier of satellite-based broadband VSAT, broadcast, government and defense communication network and ground station solutions. As a global company with more than 25 years of experience in the satellite networks and systems businesses, ND SatCom is a reliable source of comprehensive and secure turnkey and tailored system engineered solutions. Customers in over 130 countries benefit from our unmatched core technologies and broad experience.

With our well proven experience in systems integration and the provision of customized fixed and mobile satellite solutions, we are able to meet the toughest challenges in the areas of:

/ Government & Administration Solutions

/ Defense Network Solutions

/ Broadcast & Media Solutions

/ Telecom & Enterprise Network Solutions

/ Customer Services

ND SatCom Headquarters in Friedrichshafen, Germany

// Global Presence //

With regional strategic sales and support offices in Europe, Africa, the Middle East, Asia-pacific and the United States, ND SatCom is uniquely capable of successfully servicing key satellite communication markets through customer proximity. Under the supervision of experienced ND SatCom management teams, our registered subsidiaries employ native satellite communications experts and cooperate with selected local suppliers and partners to offer their customers optimum technology solutions. With its world-spanning network of sales offices and representatives, we are set to reach, serve and truly satisfy customers.

// Reputation //

The key to the company's growth and stability has been its flexibility in serving both commercial and military markets. ND SatCom was awarded the Growth Strategy Leadership Award 2006 and earned listings on the World Teleport Association's Independent Top Ten Operators and Top Ten Fastest Growing Companies ratings. Furthermore the company is ranked in the Top 50 of Space Industry Manufacturers by Spacenews and was honored with the Product of the Year Award 2004 for the best satellite contribution/distribution technology by Cable & Satellite and with the Industry Award for Innovation and Technology by ISCe.

For more information go to www.ndsatcom.com or e-mail: info@ndsatcom.com

(Advertorial)