

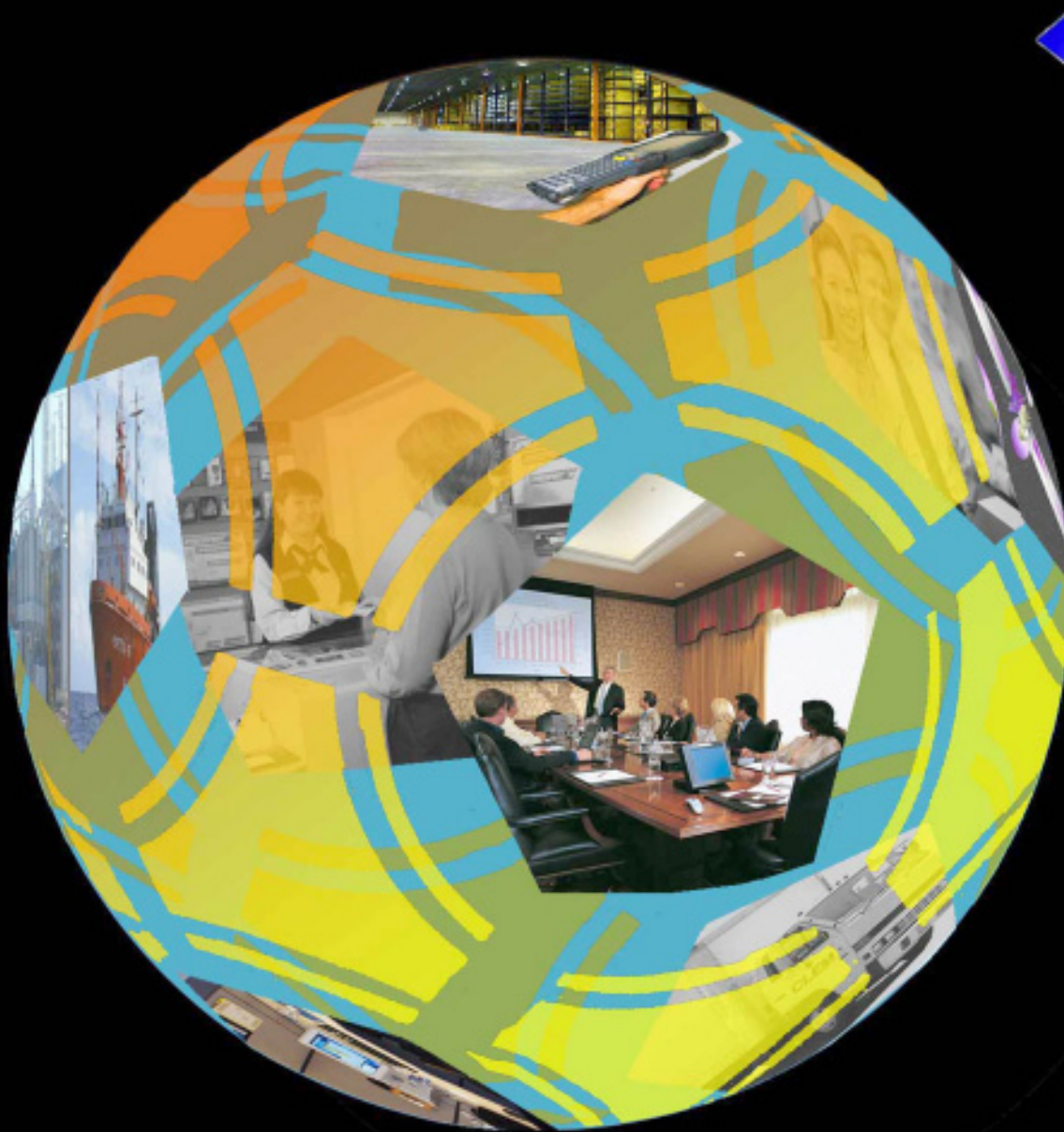


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March 2006

Worldwide Satellite Magazine

Vol. 3 No. 11



Managed Networks

Your Satellite Connection to the World

SES  GLOBAL

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NOTE FROM THE EDITOR

Latest Launch Failure Should not Derail Recovery of the Launch Industry

As we went to press, we received the sad news of the failure of the launch of Arabsat 4A satellite last March 1st. The failure was the first after a over two-year span of successful launches of geostationary satellites. The news also came on the heels of the release of a study by the Teal Group Corp. which painted a very rosy picture for the satellite manufacturing and launch sectors. The study projected a total of 176 GEO commercial satellites, worth \$28.3 billion, will be built and launched during 2006-2015.

In a new 10-year market forecast for geostationary orbit commercial satellites, the study said the entry into the market of at least a dozen new satellite operators will also result in orders during the next two years, which means that a relatively high number of satellites should continue to be launched in 2008-2009. It also cites last year's 19 orders — an increase of 37 percent over 2004 — for GEO commercial satellites as a major reason for the near-term increase in launch projections.

It turns out that Arabsat 4A failure was the third serious accident suffered by Russia's space program in eight months. In October 8 last year, an earth monitoring satellite was lost because of another Russian booster failure. A few days later, Russia's Federal Space Agency controllers lost contact with the Russian-built Monitor-E satellite after it lost orientation on October 18. Earlier, on June 21, 2005, a Russian Molniya rocket carrying a sensitive military communications satellite crashed shortly after taking off from Plesetsk launch pad.

However, several recent failures should not derail the recovery of the manufacturing and launch sectors. Satellite orders are driven by increased market and consumer demand for satellite services and should be sustained in the next few years. With the prospects getting brighter for the manufacturing and launch sector of the industry, competition is heating up for alternative launch sites. Obviously, safety issues should be a concern and must be addressed so that the overall viability of the launch sector is maintained.

Virgil Labrador

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CALENDAR OF EVENTS 2006



MARCH

March 7-9, Dubai, United Arab Emirates

CABSAT 2006

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8034Email: david.lim@dwtc.com

Website: www.cabsat.com

March 7-10, São Paulo - Brazil

TELEXPO 2006

Morgan Moore

Tel: 310-313-1808 / Fax: 815.361.1808

Email: morgan.moore@questex.com

Website: www.telexpo.com.br/2006

March 21-23, New Delhi, India

Convergence India 2006

Tel.: 91 - 11 - 5279 5000 / Fax.: 91 - 11- 5279 5098/99

E-mail: exhibitionsindia@vsnl.com

Website: www.convergenceindia.org

APRIL

April 9-11, Atlanta, GA

NCTA The National Show

Tel: 202-775-3669 / Fax: 202-775-3692

Email: thenationalshow@ncta.com

Website: www.thenationalshow.com

April 11 - 14, Istanbul, Turkey

5th International Caspian Telecoms Conference

Maggie Cheung

Tel : + 44 20 7596 5221 / 5000

Fax : + 44 20 7596 5208 / 5117

Email : Maggie.Cheung@ite-exhibitions.com

Website: www.caspiantelecoms.com/en/2006

April 18 - 20, Washington, DC

Military Satellites 2006

Tel: 800 882 8684 or +973 256 0211

Fax: + 973 256 0205

Email: info@idga.org

Website: www.idga.org/na-2298-02

April 22-27, Las Vegas, Nevada

NAB 2006

Tel: +45 3815 3332 / 202-429-5300

Fax: 202-429-4199 / Email: nab@nab.org

Website: <http://www.nabshow.com/>

MAY

May 4-5, Copenhagen Business School, Copenhagen, Denmark

European Satellite Cultures Conference

Julie Uldam

Tel: +45 3815 3332 / Email: esc@cbs.dk

Website: www.cbs.dk/esc

JUNE

June 13-15, San Diego Hilton Resort at Mission Bay, San Diego, CA, USA

ISCe Conference and Expo

Hannover Fairs

USAPhone: +1 310 410 9191

Fax: +1 310 410 9396 / Email: info@isce.com

Website: www.isce.com



June 19-23, Singapore

BroadcastAsia 2006

Tel: +65 6738 6776 / Fax: +65 6732 6776

Email: events@sesallworld.com

Website: www.broadcast-asia.com/index2.htm

June 20-23, Singapore

CommunicAsia 2006

Tel: +65 6738 6776 / Fax: +65 6732 6776

Email: min@sesallworld.com

Website: www.communicasia.com

AUGUST

Aug. 22-26, Beijing, China

BIRTV 2006

Tel: +86 10 86093207 or 86092783 ext. 801

Fax: +86 10 86093790

Email: birtv@birtv.com

Website: www.birtv.com/english/about.asp

SEPTEMBER

Sept. 7-11, RAI Convention Centre, Amsterdam

IBC2006 Conference

Tel: +44 (0)20 7611 7500

Fax: +44 (0)20 7611 7530 / Email: show@ibc.org

Website: www.ibc.org/

Sept. 26-28, Hotel Lotte World, Seoul, Korea

APSCC 2006 Satellite Conference and Exhibition

Tel: +82 2 508 4883~5 / Fax: +82 2 568 8593

Email: info@apsc.or.kr

Website: www.apsc.or.kr/event/apsc2006.asp

FEATURED EVENT

ISCe 2006 Conference to Focus on Satellite and Hybrid Network Solutions



ISCe Conference and Expo 2006

June 13-15, 2006, San Diego Hilton Resort at Misson Bay, California

The ISCe 2006 Conference Program is shaping up nicely with its focus on Satellite and Hybrid Solutions for the **enterprise, entertainment and media, and government/military markets**. "Satellite and hybrid solutions provide a vital service for the enterprise, entertainment and media, and government/military markets. ISCe 2006 will focus on the value and cost-effective solutions that satellite and hybrid networks (cable, telcos and utilities) provide to the end user. There simply is no other conference that offers this type of access to so many senior executives," said David Bross, Chairman of ISCe 2006.

Now in its fifth year, ISC, will be jointly holding the 5th Annual ISCe Conference and Expo with the 23rd American Institute of Aeronautics and Astronautics (AIAA) International Communications Satellite Systems Conference (ICSSC) from June 13-15 at the San Diego Hilton Resort in San Diego, California.



**Maj. Gen. James Armor, Jr.,
Director – National Space Security Office
will be among the many distinguished
speakers at the ISCe 2006 confence**

"ISCe 2006 will concentrate on both satellite and hybrid networking solutions for companies in the broadcasting and entertainment business, enterprise corporate end users and military and government markets," added Bross.

"The continuing global war on terror as well as the U.S. military's continuing need to evolve and transform its communication architecture will be paramount at

the show. We also will examine why satellite radio, TV and broadband services continue to grow so rapidly. Finally, we'll take a look at the growing enterprise market for satellite services and offer some real-world case studies featuring companies who are successfully integrating satellite technologies into their telecom mixes...and doing so profitably," said Bross.

Hannover Fairs President and CEO Art Paredes said that the primary benefit of attending ISCe this year is to gain access to the most

senior level telecom, wireless, satellite, cable and utility executives gathered in San Diego in the early summer to discuss issues and opportunities that face telecom end users and to discover those cost-effective solutions that can save your company big dollars in the long run."

One other benefit of attending the ISCe conference is that attendees with full conference registrations to the ISCe conference will be permitted to attend the Monday sessions of the ICSSC conference at no charge. Additionally, those ICSSC attendees who have purchased a full conference registration to the AIAA show will be permitted free access to the Wednesday sessions (June 14) at the ISCe conference.

As in its previous successful conferences, ISCe 2006 will feature leading industry speakers in a comprehensive conference program that includes the following key components:

- **GVF Wireless Workshop**
- **Space & Security Forum**
- **WTA Translating the Trends Workshop**
- **Carmel Group's Cable, Satellite & Telco Entertainment Forum**
- **Digital Content & Mobile Forum**
- **Military & Government Requirements Forum**
- **Retail Enterprise & Business Forum**
- **Global Business & Financial Outlook Forum**

For more information on ISCe 2006 Conference and Expo contact the Conference Chairman, David Bross at +1-301-916-2236 or e-mail at: dbross@hfusa.com or go to www.isce.com **SM**



FEATURED EVENT

ISCe 2006 Conference Program Outline

(as of March 2, 2006)



Tuesday, June 13, 2006

GVF Wireless Workshop – Fixed, Mobile & Everything in Between

(Sponsorship Available)

9:00 am – 5:30 pm

Session GVF1: Hybrid Wireless: Convergence Cash Cow or a Lot of Bull?

Whether they are small, medium or large, enterprises with requirements for competitive telecommunications are increasingly opting for hybrid wireless solutions that draw upon the relative strengths of satellite, cellular, Wi-Fi, WiMAX, and other key technologies. Or are they? How big are the markets? How compatible are the systems? And to what extent are different industry sectors able to get along? This outstanding session will provide the answers to these questions!

Moderator: David Hartshorn, Secretary General - GVF

Panelists: TBD

Session GVF2: Diversified Wireless Portfolios: Cellular, Wi-Fi, WiMAX or Whatever!

IT managers are as technology agnostic as they come and wireless is no exception. Whether it's satellite, cellular, Wi-Fi, WiMAX, or whatever...they just don't care – so long as it's high-value, high-quality communications. The telecom industry is responding to this demand with diversified portfolios that offer end-to-end solutions and draw upon the relative strengths of a multitude of technologies. This session will reveal how.

Moderator: TBD

Panelists: Ron Resnick, President & Chairman – WiMAX Forum; Director of Marketing, Broadband Wireless Division – Intel
Benjamin Finzi, President, Americas Operations - WiNetworks*

Session GVF3: Satellite-Based Wi-Fi: Killer App...or Flavor of the Month?

Wi-Fi is "hot", and the satellite industry is positioned to provide connectivity for a new service that promises to become a prominent feature of the telecom landscape. But key questions remain: How much of Wi-Fi is real, and how much is hype? Is satellite technically up to the challenge? And perhaps most

importantly, is there a proven business model to support satellite-based Wi-Fi? Addressing the subject are the world's leading players in this arena.

Moderator: TBD

Panelists: TBD

Session GVF4: Wireless Infrastructure: Reaching the First (and Last) Mile

Satellite-based cellular backhaul to the PSTN is a well-established application – and it's going strong. As satellite links extend the reach of competing terrestrial wireless services, are rural regions finally within reach? And is there a compelling business model for satellite / terrestrial hybrid solutions in developing countries? This roundtable will examine the latest trends and evaluate whether such solutions are sustainable.

Moderator: TBD

*Panelists: Diana Hage, Director, Business Development – IBM Wireless Solutions**

Session GVF5: IP and the "New" Bottom Line

Times are changing...fast. IP-based wireless platforms are increasingly being provided to end users of every stripe...and the math is changing. But at some level, profit is still profit and the fundamentals still apply. Attend this roundtable to hear how IP-based considerations cut across wireless technologies and have forced a rethink of service offerings and revenue potential.

Moderator: TBD

Panelists: TBD

Exhibitor Pavilion Open

(Sponsorship Available)

10:00 am – 5:30 pm Exhibitor Pavilion

Coffee Break

(Sponsorship Available)

10:00 am – 10:30 am Exhibitor Pavilion

Product Demonstration Program

10:30 am – 12:00 pm Exhibitor Pavilion



FEATURED EVENT

Product Demo #1: Company TBD

Product Demo #2: Company TBD

Product Demo #3: Company TBD

Product Demo #4: Company TBD

Product Demo #5: Company

Space & Security Forum

(Sponsored Calif. Space Authority)
10:30 am – 5:30 pm 1% Capri Room

Welcome: **TBD**

Keynote:

Maj. Gen. James Armor, Jr., Director – National Space Security Office

Session SS1: Transforming Space & Integrating the Battlefield

As the U.S. and its allies continue to transform their militaries, satcom systems will support new capabilities for information sharing, time-sensitive targeting and communications on the move. Achieving this transformation requires viewing satellite communications links both as a capability to be integrated with the warfighter and as a vital network to be protected. This panel will examine approaches for transforming the full range of satcom capabilities for U.S. and coalition military operations.

Moderator: **Richard Buenneke**, Sr. Policy Analyst, National Security Systems Engineering
– The Aerospace Corp.

Panelists: **Peter Hadinger**, Director, Communications Initiatives, Northrop Grumman Space Technologies*
COL Patrick Rayermann, Chief, Space & Missile Defense Division, G-35, Headquarters, U.S. Department of the Army
Robert Tarleton, Chief, Communications Functional Integration Office, National Security Space Office, U.S. Defense Dept.

Session SS2: Help from Space! Hybrid Solutions for First Responders

In practically any emergency situation, whether due to natural causes or otherwise, the foremost requirement is to re-establish communications to the affected areas and communities. First Responders need flexible and adaptable communication links capable of operating with no or little local infrastructure. This must-attend panel will include representatives of police and other regional and national agencies to highlight what is needed and under what environmental conditions. Panel members will present solutions that can provide the much needed communication capabilities via satellites and hybrid networks. Modern sensor-based networks with the ability to constantly monitor infrastructures as well as the first responders themselves will also be covered in this session.

Moderator: **David Cavossa**, Executive Director – Satellite Industry Association
DK Sachdev, President – SpaceTel Consultancy

Panelists: **Carson Agnew**, President and Chief Operating Officer – Mobile Satellite Ventures
Carl Williams, Sr. Policy Director – California Space Authority
Todd Young, Director of Marketing - Rosum Corp.

Session SS3: The Next Horizon: New and Evolving Commercial Space Markets

What are the drivers in the re-emerging commercial space market? Which new businesses hold the most promise in this recovering market, and what technologies are key to the success of these new business? This panel of technology and market experts will address these questions and share their perspectives and insights regarding which are the key technology drivers for continued growth in the commercial markets.

Moderator: **Melissa Farrell**, President & CEO – Stellar Solutions Aerospace Ltd.

Panelists: **TBD** –

The Carmel Group's Cable, Satellite & Telco Entertainment Forum

(Sponsored by SES AMERICOM)

8:00 am – 9:05 am Terrazza Ballroom

9:00 am – 10:00 am



FEATURED EVENT

Session CG1: Content Innovation: Looking Beyond the Box

This session focuses on the software side of the business of cable, satellite, telco, utilities, and mobile services, featuring a frank and provocative discussion about the content and entertainment services and applications that service providers are rapidly adopting. Content is being delivered anywhere, all the time, to anyone! This session looks from both the content and service providers' perspectives, focusing on the business models and related issues.

Moderator: **TBD**

Panelists: **TBD**

10:00 am – 10:30 am

Coffee Break in Exhibitor Pavilion

10:30 am – 12:00 pm

Session CG2: IPTV Strategies for Success!

Telcos see Internet Protocol TV (IPTV) as a critical triple play service and the chance to regain a dominant place in the telecom market. But is it? Are telcos playing catch-up and need to understand not only the opportunities, but also the challenges and uncertainties? Or is this technology a Next Holy Grail? Come learn from this technology-focused panel and hear what key executives are saying about the technology, business, marketing and regulatory realities underlying this digital medium, and its impact on telcos and the competitors. Does IPTV justify — and can it handle — the current industry hype? How does the competition react?

Moderator: **TBD**

Panelists: **TBD**

1:30 p.m. – 2:30 pm

Session CG3: Broadband: The Top 10 Drivers for 2007

In the current economic climate, operators are making careful decisions about how and where they are expanding broadband services, and which business models will be strengthening their bottom lines. Broadband commoditization and the price erosion of Internet access services are driving operators to seek new revenue streams by offering enhanced services, such as VoIP, video telephony, broadcast video and gaming. Will this be enough for satellite operators to differentiate themselves from their rivals? Will consumers be attracted to these new, bundled services? This distribution-based session examines the market drivers, the available technologies (i.e., terrestrial, satellite, and wireless), and the best business models producing the best results.

Moderator: **Harry Thibedeau** - NRTC

Panelists: **TBD**

2:30 pm – 3:30 pm

Session CG4: Advanced Services: Shaking Out the Hype

Included in this "Advanced Services" basket are IPTV, VOD, DVR and gaming. These new, advanced applications are revolutionizing—and complicating—business models for every operator, on a global scale. Indeed, just a couple of the more critically disruptive services include DVRs and VoIP, which have become very popular with mainstream consumers. Service providers have been attempting to capitalize on such areas, but are they underestimating the business and technology challenges facing the markets in the next two years? What partnerships are lining up? Where do advertisers fit in? Is theirs a dying art? Or are they just waiting to find their new legs? This session finds the answers.

Moderator: **TBD**

Panelists: **TBD**

3:30 pm – 4:00 pm

(Sponsored by Mobile Satellite Ventures)

Refreshment Break in Exhibitor Pavilion

4:00 pm – 5:30 pm

Session CG5: CEOs: Breaking the Rules & Making It Happen

For 10 years, this renowned CEO session has become a hallmark of events organized by The Carmel Group. This year will be no exception. A mixture of the best and the brightest will engage one another and their audience on the most crucial issues facing the multi-channel market. This session will cover: the next-generation of devices, content and business models, advertising, content, distribution, operators, technology, legal/regulatory...you name the topic, these business leaders are going to tackle it! This is a can't-miss final session.

Moderator: **Jimmy Schaeffler**, Chairman and CEO – The Carmel Group

Panelists: **TBD**

Joint AIAA Awards Luncheon ISCe Welcome Luncheon

(Co-Sponsored by the California Space Authority)

12:00 pm – 1:30 pm Monte Carlo / St. Tropez /
Riviera Rooms

FEATURED EVENT

Welcome: **TBD – AIAA**
The Honorable Andrea Seastrand, Executive Director – California Space Authority

AIAA Awards Presentation:

Keynote Speaker: **Lt. Gen. Michael Hamel**, Commander,
U.S. Space & Missile Systems Center –
L.A. Air Force Base

WTA Workshop – “Translating the Trends: What the Big Market Developments of the Year Will Mean to Your Company”

(Sponsorship Available)

1:30 pm – 5:30 pm Exhibitor Pavilion

This half-day workshop is for satellite communications service and technology providers who face strategic decisions about responding to the market developments making headlines today. Equally valuable for end-user executives deciding where to spend scarce telecom and technology dollars, the workshop will connect the dots between developments in the news – from mergers & acquisitions to the latest technology platforms – and their businesses. Which trends do they need to follow? What will be the sometimes surprising impact of industry restructuring? How fast will customers adopt new technologies and turn them into “must-have” services and products?

The workshop, presented by the World Teleport Association (WTA), includes a top-level review of the most important market developments and roundtable discussions of their impacts by senior service and technology executives. Since 1985, the WTA has been the only nonprofit trade association that focuses on the business of satellite communications from the ground up.

Welcome and Introduction

Speaker: **Robert Bell**, Executive Director – World Teleport Association

Session WTA1: WTA Market Presentation - The Top Ten Trends You Need to Watch

Speaker: **TBD**

Session WTA2: Responding to Changing Markets and Intensifying Competition for New Customers

Moderator: **TBD**
Panelists: **TBD**

Session WTA3: Today’s Technologies That Grow Tomorrow’s Market

Moderator: **TBD**
Panelists: **TBD**

Refreshment Break

(Sponsored by Mobile Satellite Ventures)
3:30 pm – 4:00 pm Exhibitor Pavilion

SSPI “Beach Blast” Welcome Reception

(Co-Sponsored by Space Systems Loral)
5:30 pm – 7:00 pm Hilton Hotel Beach Lagoon

Wednesday June 14, 2006

VIP Breakfast (by Invitation Only)

(Sponsorship Available)
7:30 am – 8:30 am 10% Exhibitor Pavilion

SIA “State of the Industry” Report

8:30 am – 8:45 am Monte Carlo / St. Tropez /
Riviera Rooms

Speaker: **David Cavossa**, Executive Director – Satellite Industry Association

Joint CEO Plenary Session

8:45 am – 10:30 am Monte Carlo / St. Tropez
Riviera Rooms

Satellite Executives Speak: Profits, Punditry & Predictions

In this signature session at ISCe, the top leaders of the commercial satellite industry gather for their annual round of forecasts and strategizing. What will the second half of the year hold for the commercial satellite business? How do satellite executives plan to compete with terrestrial companies for business and consumer end users? What are the key new customer markets as well as hot spots for satellite-based services and where are satellite companies losing market share? Plan on attending this standing-room-only session and find out the tips and tactics that these savvy executives employ to grow their profits, during this highly interactive, audience participation session!



FEATURED EVENT

Moderator: **Lon Rains**, *Editor – Space News*
Panelists: **Mark Dankberg**, *CEO – ViaSat, Inc.*
Ed Horowitz, *CEO – SESAMERICOM**
Patrick Brant, *CEO – Loral Skynet*
Andy Sukawaty, *Chairman & CEO – Inmarsat**
Pacalle Sourisse – *CEO–Alcatel Alenia Space*

Exhibitor Pavilion Open

(Sponsorship Available)

10:30 am – 5:30 pm Exhibitor Pavilion

Coffee Break

(Sponsorship Available)

10:30 am – 11:00 am Exhibitor Pavilion

Digital Content & Mobile Forum

(Sponsorship Available)

11:00 am – 5:30 pm Riviera Room

Session WE1: Satellite Mobile Entertainment and Data 11:00 am – 12:00 pm

There is a rapidly growing market for new forms of mobile entertainment, including real time audio and video. Satellite has helped create and define this market through direct to user mobile digital audio and video services. This panel of leading experts will explore the future potential of these services in terms of new satellite bands, new delivery technologies, new business models and new forms of content.

Moderator: **Mark Dankberg**, *Chairman & CEO - ViaSat*
Panelists: **TBD** - *Viacom, Time Warner, FOX Network*

Session WE3: Watching the Small Screen: Digital Content for the Mobile Platform

1:30 pm – 2:45 pm

It's hard to believe that the cell phone explosion of yesterday has now surfaced as the most dominant strength in the entertainment industry, rivaling TV and DVD as consumers' leading choice. Mobile as a fully functional entertainment provider - news, music, sports, and video - has replaced mobile as a simple communication tool. In this session, we have gathered a seasoned group of executives from the Entertainment, TV and Mobile industries who will explore several key topics focusing on content for the mobile platform. What compelling features will create a competitive advantage? How important is content? Selling + Celebrity = Sellebrity How important are icons in the success of these mobile networks? Will the DVB-H market capture enough consumer interest to

achieve positive cash flow? Don't miss this outstanding session highlighting content and the emerging mobile market.

Moderator: **Gary Hatch**, *CEO – ATCi*
Panelists: **TBD** - *ESPN*
TBD – *Sony Digital Entertainment or CNN*
Jeff Lorbeck, *Sr. Vice President & GM, MediaFLO Division – Qualcomm**
TBD – *Verizon*

Session WE5: And.....Action! Digital Content for Hollywood Takes the Stage

3:15 pm – 4:30 pm

Digital cinema presents a compelling vision: a revolutionary breakthrough in distribution that will lower costs, improve security and significantly expand opportunities for theater owners and studios – not to mention for satellite and terrestrial service providers that manage and transport the multi-gigabit files. Reality, however, has been slow to catch up as the vision has run head-on into established business interests and technology hurdles. Today, however, the early stages of a digital cinema market are becoming visible through multi-cinema trials and commercial distribution of pre-show content. In this session, a panel of buyers and sellers in this emerging market explore issues of secure transport, network requirements and digital rights management, and provide their forecasts for the next two years.

Moderator: **Robert Bell**, *Executive Director, Society of Satellite Professionals International and World Teleport Association*

Panelists: **TBD** - *GlobeCast*

Military & Government Requirements Forum

(Sponsorship Available)

11:00 am – 5:30 pm Capri Room

Session WE2: DoD Net-Centric Operations and Integration: The New Battlefield Frontier 10:45 am – 12:15 pm

The rapid deployment of new technologies in support of Global War on Terror (GWOT) operations in Iraq and Afghanistan has provided the DoD with the opportunity to experience Net-Centric Operations and Integration in a combat environment for the first time. This experience has provided the DoD with a tremendous amount of data with respect to real world implementation of the Net-Centric vision. Additionally, it identified areas where technologies and processes need refinement and improvement. This panel will



FEATURED EVENT

provide the Services and DoD perspective on how Net-Centricity has evolved to-date and what remains to be addressed in light of lessons learned, including emerging new hostile information warfare threats directed against increasingly complex DoD C4ISR systems.

Moderator: **Art Fritzson**, Vice President – Booz Allen Hamilton

Panelists: **TBD**

Session WE4: Future MILSATCOM Systems: A Progress Report!

1:45 pm – 3:00 pm

The 2005 Congressional Budget Office (CBO) report on Military Space Programs projects funding for space systems will grow next year by more than 40 percent and double by 2011. New advances in voice, data and video delivery via transformational military communications systems will enable net-centric operations for the deployed warfighter. The Office of the Assistant Secretary of Defense for Networks and Information Integration is leading the integration effort for various critical programs in realizing the vision of the Global Information Grid (GIG). The five satellites of the Transformational Satellite Communications System (TSAT), with laser communications and Internet Protocol, will provide real time network access to the tactical user. The Joint Tactical Radio System (JTRS) program will bring a new common architecture software-defined radio to the 19 legacy waveforms and current inventory of 750,000-plus radios, enabling interoperability among the services and our coalition partners. The Navy is developing the Mobile User Objective System (MUOS) with urban canyon and foliage penetration to provide narrowband communications on the move for the 21st century mobile forces. This panel will provide the Services and the DoD perspectives on the technical and budget challenges as they develop systems to ensure continued information superiority for the uniformed forces.

Moderator: **Bryan M. Scurry**, Deputy, PEO Space Systems (Acting), Executive Director – SPAWAR Space Field Activity (Acting)

Panelists: **Dennis Bauman**, PEO, C4I & Space, SPAWAR - U.S. Navy*
Mike Kern, Sr. Systems Engineer, GIG – OASD/NII, Office of the Secretary of Defense
Shaum Mittal, Chief, SATCOM Engineering, DISA
Brig. Gen. Ellen Pawlikowski, Program Director, MILSATCOM JPO – USAF Space & Missile Systems Center

CAPT. Dave Porter (USN), MUOS Program Manager, PMW-146

Session WE6: Distributed Connectivity to the Mobile Warfighter

It is understood well how modern warfighters have adopted and mastered “maneuver warfare” tactics on the battlefield. What has not been solved, however, is how the warfighter communicates while maneuvering. What is the impact of distributed C2 whereby the warfighter must now reach not only his fellow fighter nearby, but also receive “intel” from the skies, data from archives half a world away, and SA from echelons of command throughout the battlespace. History has shown us that armies can outrun their supplies. But are we outrunning our communications capabilities? This panel of experts will reveal their solutions to these and other questions affecting connectivity throughout the military.

Moderator: **VADM Lyle Bien (Ret. USN)**, Former Deputy Commander-in-Chief and Chief of Staff of U.S. Space Command

Panelists: **Brig. Gen. George Allen**, CIO and Director C4 - U.S. Marine Corps*
Maj. Gen. Charles Fletcher, Jr., Asst. Deputy Chief of Staff (G-4), Military Surface Deployment & Distribution Command – U.S. Army*
David Helfgott, President & CEO – Americom Government Services
Dean Olmstead, President – Arrowhead Global Solutions*
RADM Mel Williams USN, Director, Global Operations (J3) - US STRATCOM*

Session WE7 - Joint Plenary Session: Mobile Satcoms on the Move for DoD & Tinseltown

4:30 pm – 5:45 pm Monte Carlo / St. Tropez Room

Mobile telephony services continue to permeate the global communication infrastructure. The ability to provide secure, quick, affordable voice access to the war fighter involved in a conflict or to the new media covering that conflict has never been easier. Accessible voice communications also have become a critical link in aiding Hollywood to produce its content away from the sound stages of Southern California and in the middle of far-flung previously difficult locations. What is the potential future growth of this market? What are the challenges and opportunities that face both satellite and terrestrial voice services providers? During this must-attend



FEATURED EVENT

session, our panel of top executives will “lift the curtain” and reveal their keys to success.

Moderator: **Scott Chase**, *President, Mobile Satellite Users Association (MSUA)**

Panelists: **Britt-Carina Horncastle**, *President, Telenor Satellite Services Holdings, Inc.*
Carmen Lloyd, *CEO – Iridium Satellite LLC**
Carson Agnew, *Executive Vice President, Satellite Operations & Development – Mobile Satellite Ventures**
Michael Butler, *COO – Inmarsat**
TBD

ISCe Leadership Luncheon

(Sponsored by G2 Satellite Solutions)

12:30 pm – 2:00 pm 100% Monte Carlo / St. Tropez Room

Welcome: **Tom Eaton**, *Sr. Vice President - PanAmSat; President - G2 Satellite Solutions*

Keynote Speaker: **Gen. James E. Cartwright**, *Commander – U.S. STRATCOM**

Refreshment Break

(Sponsorship Available)

3:30 pm – 4:00 pm 100% Exhibitor Pavilion

ISCe Reception

(Sponsorship Available)

6:30 pm – 7:30 pm Sea World

ISCe Awards Dinner

(Sponsored by The Boeing Company)

7:30 pm – 10:00 pm Sea World

SSPI Southern California Scholarship Award

Presentation: **Dan Freyer**, *President – SSPI Southern California Chapter*

Welcome: **Stephen O'Neill**, *President - Boeing Satellite Systems International*

Keynote Speaker: **Kevin Martin**, *Chairman – Federal Communications Commission (FCC)**

ISCe 2006 Awards Presentations

Thursday, June 15, 2006

VIP Breakfast (by Invitation Only)

(Sponsorship Available)

7:30 am – 8:30 am Exhibitor Pavilion

CIO/CTO Plenary Session

Tracking Technology Frontiers: The Technology Leader's Perspective

9:00 am – 10:30 am Monte Carlo / St. Tropez Room

One of the most crucial decisions a company can make is when, where and to what extent it should upgrade, adopt, cannibalize and innovate its suite of technology products. A wrong decision can impact a company's revenue negatively for years and significantly damage its ability to compete in a global economy that is reinventing itself technologically every 12 months! What are the keys to avoiding technology pitfalls? How do successful technology leaders decide where and when to invest? This must-attend panel will impart the “best practices” used by successful media, telecom and satellite companies worldwide.

Moderators: **David Bross**, *Chairman – ISCe 2006*

DK Sachdev, *President – SpaceTel Consultancy*

Panelists: **Daniel Coombes**, *Sr. Vice President & CTO, Wireless Broadband Networks – Motorola, Inc.**

Paul Heimbach, *Sr. Vice President & CTO – Viacom**

Kenneth Kuenzel, *Founder, VP of Engineering and CTO – Covergence**

Marc Pirchener, *CTO, Alcatel Alenia Space*

Richard Skinner, *Vice President, Transformational Communications, Lockheed Martin Corp.*

Exhibitor Pavilion Open

(Sponsorship Available)

10:30 am – 2:00 pm Exhibitor Pavilion

Coffee Break

(Sponsorship Available)

10:30 am – 11:00 am Exhibitor Pavilion

Retail & Business Enterprise Forum

(Sponsorship Available)

11:00 am – 4:30 pm Riviera Room



FEATURED EVENT

Session TH1: Moving from a Hub-and-Spoke Enterprise to Any-to-Any Connectivity

11:00 am – 12:30 pm Riviera Room

Many retailers have the traditional hub-and-spoke connectivity between their headquarters and individual stores. However, many end users of satellite-based technology as well as those that use terrestrial pipelines are considering “any-to-any options,” including Multiprotocol Label Switching (MPLS), a networking technology where ‘labels’ are assigned to data packets traveling through the nodes of a network. This label switching method is different from traditional internet technologies, and has proven to be a more efficient and speedy way of sending data across networks. How is the use of MPLS affecting transponder usage? Will “any-to-any options” revolutionize the way in which companies use their VSAT networking capabilities? Our panel of experts, including many users of end-to-end satellite solutions will share their insights and prognostications during this highly interactive panel session.

Moderator: Jose del Rosario, Senior Analyst and Regional Director, Asia-Pacific, NSR

*Panelists: Behzad Nadji, Vice President, Network & Systems Architecture and Chief Architect – AT&T**

*Orlando Skelton, Vice President, Enterprise Solutions – SES AMERICOM**

TBD–Reilly Auto Parts

TBD–Stride Rite

TBD–Equant

Session TH2: International Roundtable: Emerging Services in the Global Space & Communications Marketplace

11:00 am – 12:30 pm Capri Room

The International Roundtable will focus on the emerging space and communications services opportunities in Europe, Asia and the Americas. Speakers from each of these regions will outline growth markets and offer their views on how these markets likely will be addressed, the ability of domestic suppliers to match demand and the benefits of international partnerships. This session will examine the concept of creating agreements between and among international aerospace trade groups that will provide mutual and readily available assistance to any member company seeking to develop relationships in a foreign setting. Don't miss this outstanding international forum of foreign delegates.

Moderator: Richard Swanson, Jr., Supervisory Trade Specialist of the U.S. Export Assistance Center, U.S. & Foreign Commercial Service—U.S. Department of Commerce's International Trade Administration

Panelists: TBD

Session TH3: Optimizing Retailer's Connectivity and Increasing Efficiencies

1:30 pm – 3:00 pm Riviera Room

Managing your company's telecom expenses has never been more important. In this time of seemingly endless hybrid telecom options and solutions, companies are finding ways to use technology more efficiently, thereby driving down costs and improving productivity. What hybrid solutions have worked for retailers? Which ones have proven to be more promise than punch? This panel of providers and end users will sort through the myriad options facing company chief technology officers and offer solutions for your company's future telecom/networking choices.

Moderator: Connie Gentry, Senior Editor – Chain Store Age Publication

*Panelists: Ron Resnick, President & Chairman – WiMAX Forum; Director of Marketing, Broadband Wireless Division – Intel**

*TBD, CommercialWare**

Session TH5: Satellite Networks for Retailers: Improving the Value!

3:00 pm – 4:30 pm Riviera Room

Retail satellite networks historically have addressed the problem of providing credit card verification, inventory management and accounting to hundreds or thousands of stores and branches previously served by expensive and less-reliable leased telephone lines. A second and equally valuable application for satellite technology is the delivery platform for business television used in education and, in some cases, by in-store advertising. As these networks move from analog to digital format, the satellites themselves have become more powerful to reduce the cost of reception equipment. And innovations within the Internet and digital content distribution increase opportunities to enhance the customer experience, grow the business and provide cost reductions. This panel discussion will cover how leading-edge retailers are using satellites to perform legacy functions better and to provide new value. The session's interactive format will allow participants to share their innova-

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tive ideas and experiences, as well as the opportunity for attendees to comment and/or challenge our panelists.

Moderator: **Bruce Elbert**, President, *Application Technology Strategy, Inc.*

Panelists: **TBD** – Home Depot*
TBD – Sony North America Solutions*
TBD – Chevron*
TBD – Hughes Network Systems*
TBD – GlobeCast*

Global Business, Policy & Financial Forum

11:00 am – 4:30 am ⓘ Capri Room

Session TH2: International Roundtable: Emerging Services in the Global Space & Communications Marketplace

11:00 am – 12:30 pm ⓘ Capri Room

Moderator: **Richard Swanson, Jr.**, *Supervisory Trade Specialist of the U.S. Export Assistance Center, U.S. & Foreign Commercial Service—U.S. Department of Commerce's International Trade Administration*

Speakers: **TBD**

Session TH6: Assessing Business Models for Satellite Operators In a Consolidated Market place—Part I

1:30 pm – 3:00 pm ⓘ Capri Room

The first part of a two-part session, Euroconsult will provide a comprehensive review of the key satellite business trends affecting your business. Euroconsult will provide a presentation of indicators of performance and development in the satellite sector. Following consolidation between leading satellite operators, the focus in the coming two years will likely be on mergers and acquisitions of regional operators, on potential investments in value added services and on the design of new business models to generate growth through new applications. Executives from leading international satellite companies will discuss strategic issues in the satellite marketplace and upcoming events.

Moderator: **Rachel Villain**, *Director of Space & Communications - Euroconsult*

Panelists: **TBD**

Session TH8: From Innovation to Return on Investment: Dynamics of New Satellite Applications—Part II

3:00 pm – 4:30 pm ⓘ Capri Room

In the final instalment of our two-part session, Euroconsult will focus fully on existing and emerging satellite applications for both fixed and mobile communications and entertainment in the international marketplace. The discussion will be centered around the impacts of the dynamics of applications such as HD, mobile and IPTV as well as mobile and fixed satellite broadband and DAB in the different world regions on international satellite market players' business models, and how companies expect to capture part of the growth generated by terrestrial and satellite innovations.

Moderator: **Rachel Villain**, *Director of Space & Communications - Euroconsult*

Panelists: **TBD**

Box Luncheon (and Program)

(Sponsorship Available)

12:30 pm – 1:30 pm ⓘ Exhibitor Pavilion

Session TH4: The DC Beat: A Legislative, Regulatory, and Policy Update

Come join us to hear about the latest developments in the nation's capital concerning space policy, and legislation and regulations of interest to the satellite and space industry (including the International Traffic in Arms Regulations). Attendance at this lively panel, composed of government and industry representatives, is a must for all those for whom goings-on in Washington have an impact or potential impact upon their business.

Moderator: **John Ordway**, *Senior Partner – Law Office of Berliner, Corcoran & Rowe, LLP*

Panelists: **Leslie Taylor** – NTIA*

TBD – FCC*

TBD – Department of State*

Notes:

TBD- To be decided

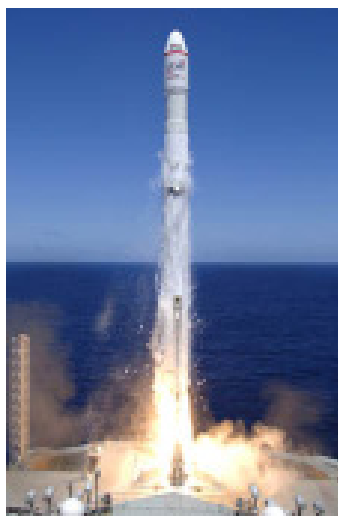
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For additional information regarding speaking, exhibiting or sponsorship opportunities at ISCe 2006, please contact the Conference Chairman, David Bross at +1-301-916-2236 or e-mail at: dbross@hfusa.com For information on the event, visit: www.isce.com

INDUSTRY NEWS

Sea Launch Delivers EchoStar X Satellite to Orbit



A Sea Launch Zenit-3SL rocket lifts off from the Odyssey Launch Platform at 3:35pm PST Wednesday, successfully placing the EchoStar X communications satellite into a Geosynchronous Transfer Orbit. (Sea Launch photo)

LONG BEACH, Calif. — Sea Launch Company successfully delivered on Feb. 15 EchoStar X communications satellite to geosynchronous transfer orbit (GTO) with early data indicating the spacecraft is in excellent condition.

A Zenit-3SL vehicle lifted off at 3:35pm PT (23:35 GMT), from the Odyssey Launch Platform, positioned at 154 degrees West Longitude. Sea Launch said all systems performed nominally throughout the flight and the Block DM-SL upper stage inserted the 4,333 kg (9,553 lb.) EchoStar X satellite to GTO, on its way to a final orbital position of 110 degrees West Longitude.

A ground station in Uralla, Australia, acquired the first signal from the satellite, as

planned, a Sea Launch statement said.

The EchoStar X satellite, with a minimum service life of 15 years, was built by Lockheed Martin Commercial Space Systems in Pennsylvania and then assembled in Sunnyvale, California. The high-power Ku band A2100-AX spacecraft is designed to deliver direct-to-home broadcast services to Dish Network customers throughout the United States. Lockheed said this direct broadcast system is optimized to provide additional bandwidth and, used in conjunction with other EchoStar satellites, EchoStar X will enable the Dish Network to expand its customer services and channel offerings.

EADS Astrium-ISRO Alliance Seals First Contract with Eutelsat for W2M Satellite

NEW DELHI — EADS Astrium and Antrix, the commercial arm of Indian Space Research Organisation (ISRO), have signed a

contract to provide a communication satellite for the international market.

Under the alliance, EADS Astrium and Antrix/ISRO, which builds on the expertise of both Indian and European companies, is to jointly offer communications satellites in the market segment around 4kW of payload power and with a launch mass of 2 to 3 tons. The companies said this cooperation combining Indian platforms along with European payloads is designed to offer optimal, flexible and cost effective solutions to telecommunications operators.

The alliance has already nabbed its first contract after it was awarded the W2M satellite contract by Eutelsat Communications (Euronext Paris: ETL). This is a breakthrough for the partnership, the companies said, after winning their first commercial export contract.

Under the W2M contract, EADS Astrium will serve as prime contractor in charge of the overall program management and will build the communications payload. Antrix/ISRO will build the satellite bus, based on the I-3K model, integrate and test the spacecraft. ISRO will also be in charge of early in-orbit operations.

W2M will be delivered to Eutelsat in 26 months for launch in the second quarter of 2008.

W2M will operate typically 26 transponders in Ku-band and up to 32 depending on operational modes, for a designed operational lifetime of 15 years, according to EADS Astrium.

U.S. DOJ OKs Sale of New Skies to SES Global in First Major US Regulatory Approval

BETZDORF, Luxemburg — SES Global S.A. and New Skies Satellites Holdings Ltd. announced on Monday that the regulatory review of the acquisition of New Skies Satellites by SES Global has been completed by the United States Department of Justice.

SES Global announced on December 14, 2005 it was acquiring 100 percent of New Skies by way of a merger under Bermudian law.

But the transaction is conditional upon New Skies Satellites Holdings Ltd. shareholder approval, customary closing conditions, and clearances from relevant regulatory agencies in the United States, including the U.S. Federal Communications

INDUSTRY NEWS

Commission and Department of Justice, and the Federal Cartel Office in Germany.

The two companies said in a statement completion of these regulatory clearances came one step closer on February 3, 2006 when the U.S. Department of Justice finished its review. The DOJ said the parties are free to close the acquisition without any further clearance by that agency. Other regulatory review of the deal, however, is still in progress.

SES Global and New Skies said they anticipate closing in the second quarter of 2006, although they admitted it is possible that it could occur sooner or later than the said date.

Land Launch to Orbit Israel's Amos-3 Satellite

MOSCOW — Space International Services and Sea Launch Company have announced the award of a firm launch contract with Israel Aircraft Industries, Ltd., utilizing the Land Launch system.

Land Launch said the delivery-in-orbit (DIO) agreement requires a Zenit-3SLB vehicle to launch the Amos-3 communications satellite to geostationary orbit from the company's site at the Baikonur Cosmodrome in Kazakhstan, in the fourth quarter of 2007.

The Amos-3 spacecraft will have both Ku-band and Ka-band transponders and will consist of fixed as well as steerable beams, to provide broadcast and communications services to Europe, the Middle East and the East Coast of the United States. It has a planned operational lifetime of 12 years.

Built by Israel Aircraft Industries' MBT Space Division, Amos-3 will be located at a final orbital position of 4 degrees West Longitude, where it will join existing co-located satellites Amos-1 and Amos-2. Amos-3 eventually will replace Amos-1 when it comes to its operational end-of-life, currently expected in 2008. The Amos system is owned and operated by Space-Communication Ltd. (Spacecom).

As with other Land Launch missions, this third commercial mission under contract for launch in 2007 will have both the satellite and the launch vehicle processed and launched from existing Zenit processing and launch facilities at the Baikonur launch complex. Optimizing on heritage hardware, systems and expertise, Land Launch uses a Zenit-3SLB version of the Sea Launch Zenit-3SL rocket.

Alcatel Alenia to Build and Launch Turksat 3A Satellite

PARIS — Alcatel Alenia Space announced on Feb. 23 that it has signed a turnkey contract with Turkish operator Turksat AS for the construction and the in-orbit delivery of a new powerful telecommunication satellite, Turksat 3A.

Alcatel Alenia has been Turksat's sole satellite provider with five satellites awarded in more than 10 years.

Alcatel Alenia said the Turksat 3A satellite will enable Turksat to offer telecommunication services as well as direct TV broadcasting over Southern Europe, covering Turkey, Europe and Central Asia. As prime contractor, Alcatel Alenia will be in charge of the satellite design, construction and test activities, all the way through in-orbit delivery, along with modernization of the ground segment. It will also provide training assistance to Turksat.

Based on Alcatel Alenia's Spacebus 4000B2, Turksat 3A will be fitted with 24 Ku-band transponders and will offer beginning of life power of about 8kW. Positioned at 42°E, Turksat 3A is due to start services at the beginning of 2008, replacing Turksat 1C.

Boeing to Begin Work on Fourth Wideband Gapfiller Satellite

ST. LOUIS — Boeing has received a \$148 million contract from the U.S. Air Force to begin work on the fourth satellite in the Wideband Gapfiller Satellite (WGS) system, a 13-kilowatt spacecraft based upon Boeing's 702 satellite model.

Boeing said it has been authorized by the Air Force to begin non-recurring engineering and advanced procurement of parts for the fourth satellite known as WGS F4. Boeing is already under contract to build the first three satellites for the WGS system, a multi-spacecraft constellation designed to provide improved communications support for America's war fighters. Boeing is working to have the first WGS satellite ready for launch in June 2007.

"The Wideband Gapfiller Satellite constellation will be a key element of a high-capacity SATCOM system, and provide a quantum leap in the communications capabilities for the war fighter. Authorization to begin developing the fourth satellite in the Wideband Gapfiller Satellite system will allow for improved effectiveness of our deployed forces and ultimately save lives,"

INDUSTRY NEWS

said U.S. Air Force Lt. Col. Steve Hargis, the WGS program manager.

SES Posts 16.7% Revenue Growth to \$1.5-B in 2005, Sees Lower Margins this Year

BETZDORF, Luxembourg — SES Global, one of the world's biggest satellite operator, continued to post substantial profits last year from revenues of \$1.5 billion (EUR 1.258 billion) but the company forecasts margins would come under pressure on slower revenue growth this year.

SES said with recurring revenues increasing by 13.4 percent, EBITDA rose 11.9 percent to \$1,051 million (EUR 881m) compared to \$938.9 million (EUR 787m) in fiscal year 2004, while Operating Profit (EBIT) rose 21.1 percent to \$567.86 million (EUR

476m) compared to \$468.89 million (EUR 393m) the previous year. Net Profit improved by 12.1 percent to \$455.67 million (EUR 382m) in contrast to \$406.79 million (EUR 341m) in 2004 while EPS rose 15.5 percent to 79.7 cents (67 eurocents) compared to 69.17 cents (58 eurocents) the previous year. SES said its Free Cash Flow was substantial at \$516.54 million (EUR 433m) as against \$201.58 million (EUR 169m) in 2004.

SES also reported an 11 percent increase in contracted capacity, to 549 transponders while satellite fleet utilization remained stable at 74 percent, reflecting new capacity in orbit. SES also announced the completion of the company's \$1.1 billion acquisition of New Skies Satellites.

Romain Bausch, president & CEO of SES, said SES' strategy is validated by the strong results. "Our market positioning has improved and we have achieved excellent returns for our investors during 2005. Strong cash flow generation has sub-

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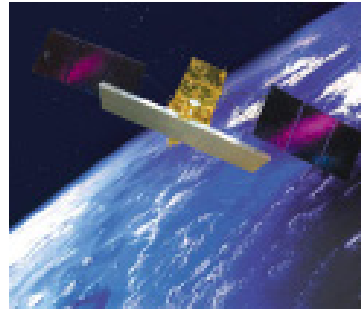
stantially exceeded the needs of our investment program. This has allowed us to deliver outstanding total returns to shareholders, comprised of growing EBITDA, significantly increased dividends, and our share buyback and cancellation program," he said in a statement.

Alcatel Alenia to Provide User Ground Segment for Italian Cosmo-SkyMed Program

PARIS — Alcatel Alenia Space has announced that it will provide the Defense User Ground Segment for the Italian Cosmo-SkyMed earth observation program to the French Ministry of Defense.

The \$38.27 million (Euro 32 million) contract was awarded by the Italian Space Agency (ASI) which acts as a procurement agency for the Italian and French Ministries of Defense. The contract is part of the French and Italian inter-governmental agreement to

ensure inter-operability and data exchange between Italian Cosmo-SkyMed and French Helios II systems.



Alcatel Alenia said it will design and build the equipment in Italy, which will be installed in the French Ministry of Defense military center of Creil (Paris neighborhood).

The Cosmo-SkyMed contract, valued at \$926.83 million (Euro 775 million), was awarded by ASI to Alcatel Alenia Space on Dec. 21, 2004 to build the first three satellites of the constellation.

The Cosmo - SkyMed is a low-orbit, dual-use, civil and military Earth observation satellite system operating in the X-band (Alenia Photo)

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EXECUTIVE MOVES

Bernard L. Schwartz to Retire as Chairman of Loral, Michael B. Targoff Named as Successor

NEW YORK — Bernard L. Schwartz, chairman and chief executive officer of Loral Space & Communications Inc. has announced his plans to retire from the company on March 1, 2006.

The board of directors of Loral promptly announced the next day the election of Michael B. Targoff as CEO. Targoff has served since November 2005 as vice chairman of Loral's board. The position of non-executive chairman will be assumed by Dr. Mark H. Rachesky.

Schwartz said he will relinquish all of his positions and directorships held at Loral and any of its subsidiaries and affiliates in March. Schwartz has been the company's chairman and chief executive officer since it was created in 1996 and, prior to that, served as chairman and chief executive officer of its predecessor company, Loral Corporation, since 1972.

"For some time, I have been considering at what point it would appropriate for me to step down as chairman and chief executive officer of Loral. With the start of the New Year and the intersection of several significant achievements - Loral successful emergence from chapter 11, our re-listing on a major stock exchange and my attainment of a milestone birthday - I have concluded that now is the right time to activate our succession plans and pass the reins of the company on to our extremely talented team of executives," Schwartz said in his letter to the board of directors.

For the last 34 years, under Schwartz's leadership, the company has played a central role in shaping and defining its industries. Since 1996, Schwartz has guided Loral Space & Communications to a leadership position in the satellite industry. It is in the unique position of being both a major commercial satellite manufacturer and a satellite services provider and has benefited substantially from Loral Corporation's strong heritage of technological innovation.

"The knowledge of both the company and the industry that Mickey Targoff has accumulated over his long relationship with Loral will certainly serve the company well and we are fortunate that he has accepted this new assignment," said Schwartz.

Targoff, 61, is the founder of Michael B. Targoff & Co., which has sought active or controlling investments in telecommunica-

tions and related industry early stage companies. He also is chairman of the board of Communication Power Industries and Leap Wireless International, Inc. and serves as chairman of their audit committees. Targoff is a director of ViaSat, Inc. and is non-executive chairman of three private telecom companies. He earned his Bachelor of Arts degree from Brown University and his Juris Doctor from Columbia University School of Law, where he was a Hamilton Fisk Stone Scholar and Editor of the Columbia Journal of Law and Social Problems.

"I am honored to follow Bernard Schwartz as CEO of Loral and enthusiastic about the opportunity to lead the company. Loral's resources, capabilities and market leadership, as demonstrated by its excellent performance during its reorganization, provide a solid platform for renewed prosperous growth," Targoff said.

Dr. Rachesky, 46, is a co-founder and the president of MHR Fund Management LLC, managers of various private funds that invest in distressed and deeply undervalued middle-market companies. He currently serves as non-executive chairman of the board of directors of Leap Wireless International, Inc. and is on the board of directors of Emisphere Technologies, Inc., among others.

XM Board Member Pierce J. Roberts Resigns

WASHINGTON — XM Satellite Radio Holdings Inc. board member Pierce J. Roberts has abruptly resigned because of "disagreements with the company and other board members regarding certain aspects of the company's operational direction."

Gary Parsons, XM chairman of the board, confirmed he received a letter of resignation from Roberts on Monday, February 13, 2006, but defended XM saying the board and management believe that "the balanced growth strategy that we have set for the company is the right one to ensure XM's long-term value."

Roberts, in his letter of resignation, warned about a significant chance of a crisis on the horizon.

"I have been troubled about the current direction of the company and do not believe that it is in the best interest of the company's shareholders," Roberts wrote in the letter, which the company disclosed in a regulatory filing.

Roberts indicated XM should rein in its spending and instead focus on reaching positive cash flow even if that means slower

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subscriber growth.

Although the letter does not explicitly state the nature of the disagreement, XM said it believes the conflict with Roberts primarily involves the strategic balance of growth versus cash flow. Roberts has historically favored more stringent cost control in the company, specifically involving lower marketing, programming and promotional expenditures.

"While Director Roberts believed that expenses could be lowered without jeopardizing subscriber and revenue growth and/or market share, he was prepared to risk growth or market share impacts if they resulted, with the belief that positive cash generation would occur sooner, and the company's stock would be valued more highly as a smaller, but more profitable enterprise," XM said in a statement.

Roberts, a former head of Bear Stearns' telecoms investment banking group, has spent five years serving on the board of XM. He receives an annual retainer of \$15,000 and according to the company's 2005 proxy statement, owns about 123,000 XM shares.

AGS Hires Robert Demers as VP of Sales Development

WASHINGTON — Americom Government Services, Inc. (AGS), a wholly owned subsidiary of SES Americom, has named Robert Demers as a vice president of Sales Development. Most recently Demers served as vice president of government solutions for Inmarsat, where he established the Washington D.C. office and was responsible for the full range of North American commercial development and government relations.

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Bob brings decades of market, technical and political experience to our company, due to his unique background as a proven satellite executive focused on the government market, his front line combat experience and his time spent as a liaison to Congress, said David Helfgott, CEO of AGS. "His counsel will be instrumental as AGS looks to reinforce its position as the leading provider of complete, innovative satcom solutions to military and civilian government agencies," he added.

In addition to his work with Inmarsat, Demers was general manager of Global Government Services at ICO Global Communications, Inc., a Mobile Satellite Service (MSS) company that was later acquired by Craig McCaw. Demers spent 22 years in the United States Army, serving in a variety of capacities including service as a combat helicopter pilot, an Aviation Unit Commander and as Army liaison to the U.S. Senate.

He is a graduate of Saint Anselm College in Manchester, New Hampshire, as well as a graduate of the U.S. Air Command and Staff College in Montgomery, Alabama.

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EXECUTIVE MOVES

Newtec Appoints New CEO; Breynaert Remains Chairman



Serge Van Herck

The Newtec board of directors has appointed Serge Van Herck as new CEO, replacing Dirk Breynaert. The board said Breynaert will focus on R&D as Newtec's CTO and will remain as chairman of the board.

Van Herck most recently served as director of Business Development for Asia at Newtec and general manager of Skyware. Prior to joining Newtec, Van Herck was senior manager at Accenture.

From 1994 to 2001, he served as head of Satellite Services at Belgacom and was a member of the Eutelsat board of signatories.

Van Herck said he plans to further implement the existing growth strategy that is based on a satellite communications product and solutions portfolio extension as well as on an increased customer support focus.

Lockheed Names Don DeGryse VP of Navigation Systems Organization



Dr. Donald G. (Don) DeGryse

SUNNYVALE — Lockheed Martin has selected Dr. Donald G. (Don) DeGryse, an executive with 24 years of experience in government and commercial programs, as vice president, Navigation Systems for Space Systems Company.

In his new role, DeGryse will lead the overall strategic development and implementation of the company's pursuit of the next-generation Global Positioning System, known as GPS III. A major focus

area for Lockheed, GPS III will enhance space-based navigation and performance and set a new world standard for positioning and timing services. The new program will address the challenging military transformational and civil needs across the globe, including advanced anti-jam capabilities, improved system security and accuracy, and reliability.

In addition to managing the GPS III campaign, he will be responsible for the execution of Lockheed Martin's operational

GPS programs, including GPS IIR and IIR-M. There are currently 13 fully operational Block IIR satellites within the overall 28-spacecraft constellation, including the first modernized IIR satellite recently declared fully operational for GPS users around the globe. The Navigation Systems organization is within the Military Space Programs line of business.

DeGryse joined Lockheed in 1982. He most recently served as vice president, Space Radar program where he successfully led the company's effort to win a multi-million dollar contract for the concept development phase of the program. Other key assignments include serving as vice president of Defense Systems, vice president of Flight Systems and vice president of Business Development.

He has a PhD degree in mathematics from Colorado State University and held positions as assistant professor at Bowling Green State University and Gonzaga University. He is also a graduate of the Harvard Business School Program of Management Development.

DigitalGlobe Appoints Scott Smith to Chief Operating Officer

LONGMONT — DigitalGlobe has hired Scott Smith as the company's new chief operating officer (COO).

Smith brings over 24 years of experience in the aerospace and commercial remote sensing industries with a background in spacecraft and ground systems design, commercial and military space systems development, and commercial space business management.

Prior to joining DigitalGlobe, Smith served as executive vice president at Space Imaging, where he was responsible for all sales, operations and engineering functions for the company. Smith joined the company in 1995 as its space segment director. Smith also previously held various engineering and management positions for Lockheed Missiles & Space Company.

As DigitalGlobe's new COO, Smith will plan and direct all aspects of DigitalGlobe's operational policies, objectives and initiatives.

He will oversee and help to prepare DigitalGlobe's corporate business processes and systems for the launch and operation of DigitalGlobe's constellation of satellites, and the significant growth of the business. **SM**

NEW PRODUCTS

Iridium Launches Compact Lower-Cost Satellite Data Transceiver

BETHESDA, Md. — Iridium Satellite has launched its new 9601 Short-Burst Data (SBD) Transceiver now available to the company's value-added manufacturers and resellers. Iridium said it has just completed initial deliveries of this small-size, lower-cost satellite data modem.

According to Iridium, its solution partners are already integrating the 9601 into a wide range of products. Typical end user applications include supply chain management, field force automation and remote asset tracking. Anticipated markets for the transceiver include heavy equipment, homeland security, supply chain logistics, maritime, automotive, industrial equipment, trucking, railroads, oil and gas, utilities and government.

The 9601 is a new-generation product designed specifically to optimize two-way data links using the Iridium global SBD service. The compact size of the transceiver — 106 x 56 x 13 mm (4.2 x 2.2 x 0.5 in) — makes it easier for system integrators to use it in smaller solution packages. The unit is ruggedized for remote operation in harsh environments according to Iridium. The 9601 supports mobile-originated messages up to 205 bytes and mobile-terminated messages up to 135 bytes. Its global latency is less than 20 seconds, making it an ideal solution for time-sensitive applications such as tracking of critical mobile assets.

IDC Provides Westwood One With Next-Generation Digital Radio Network

OTTAWA — International Datacasting Corp. announced on February 20 that it has received a significant order from Westwood One, one of the largest radio networks in the US, to provide a next-generation digital audio distribution system for the broadcast of sports programming to its top 100 US markets.

IDC said the advanced system has been installed and was online for Westwood One's live broadcast of Super Bowl XL from Detroit on February 5.

PCTEL Introduces New GPS and Digital Cellular Antenna for Mobile Transit Applications

BARCELONA, Spain — PCTEL, Inc. has announced the company's Antenna Products Group's (APG) new AST8001900GPS transit antenna that includes an active GPS antenna allowing vehicle tracking, as well as two additional



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antenna elements that provide wideband coverage of 806-960 MHz and 1710-1990 MHz digital cellular frequencies.

PCTEL said although the antenna can also be used for fixed applications, it is ideal for mobile vehicle tracking applications in the public transportation, railroad, public safety, emergency, and trucking industries.

Other key features of the new AST8001900GPS include 26 dB gain performance at the GPS frequency band (unity gain at digital cellular frequencies) and a wideband design that requires no tuning. Its rugged, high impact molded housing protects the antenna elements from severe environmental conditions. Measuring less than 3.4 inches (8.64 cm) tall, this antenna is ideal for permanent mount installations where vehicle height clearance is a concern, PCTEL said.

PCTEL said the new transit antenna will be available for sale worldwide through the PCTEL APG sales network by the end of March 2006.

Thrane & Thrane Presents Explorer 527 Terminal

WASHINGTON — Thrane & Thrane has unveiled its new BGAN terminal, the Explorer 527, which it claims is the world's first land vehicular rack-mountable BGAN system.

The system consists of a terminal and a tracking antenna. The Explorer 527 adds high-speed data transmission to phone and fax capabilities via satellite — on the move. With the transceiver connected to the rooftop tracking antenna on a truck or other vehicle turns in to a true mobile communications post wherever you are and while driving.

Thrane & Thrane said the Explorer 527 offers the full BGAN package available including: communications on the move, simultaneous voice and data communication over BGAN, high-speed data transfer up to 464 kbps, seamless global coverage, support for streaming 32, 64 and 128 kbps, and standard LAN and phone/fax interfaces

The first Explorer 527 terminals are expected to be shipped from Thrane & Thrane around the time that Inmarsat plans to launch the BGAN service on its second I4 satellite covering the Americas in mid 2006.

GE's Asset Intelligence Unit to Offer Management Solutions Using the Globalstar Network

MILPITAS, Calif. — The Asset Intelligence unit of GE's Equipment Services business, a provider of intelligence-based asset management and logistics services for commercial and transportation equipment, has selected the Globalstar's simplex data network for use with GE's worldwide asset management services.

Asset Intelligence plans to integrate the coverage and service offered by the Globalstar simplex data network into specific asset tracking solutions. These solutions will allow Equipment Services customers to track their assets using the Globalstar satellite network, Globalstar said.

We are very pleased to know that GE customers will soon be using the Globalstar satellite network to help track and manage their assets globally, said Anthony Navarra, president of Global Operations of Globalstar LLC. "Simplex Data is one of our fastest growing vertical market segments and we are very pleased about having GE's Equipment Services business join our family of integrated products and service providers," he said.

Hughes Introduces Broadband Satellite Router with Integrated VoIP Capability

WASHINGTON — Hughes Network Systems, LLC has unveiled the DW7740, a high performance satellite broadband router that features two Voice over IP (VoIP) ports combined with two broadband LAN ports, enabling international service operators to deliver a flexible range of voice and high-speed data services from a single, compact, integrated platform.

"International customers have been asking for more cost-effective rural telephony, e-governance, and kiosk-based services," said Pradman Kaul, chairman and CEO of Hughes. He said the DW7740 is in response to that demand by operating with all DW systems and supports simultaneous voice and high-speed data applications from one integrated and cost-effective platform, making it ideal in rural and remote settings.

The DW7740 is suitable for carrier-grade VoIP services enabling service providers to offer superior quality telephony integrated

NEW PRODUCTS

with broadband IP support. VoIP support has been optimized, as the DW7740 will automatically reserve bandwidth on a call-by-call basis, thereby providing high-quality voice without dropped packets. A DW Network Operations Center (NOC) routes voice calls via a voice gateway to the PSTN, or to a PBX for internal enterprise voice traffic, according to Hughes.

ViaSat Introduces DVB-S2 and Hybrid Mesh Extensions to LinkStar System

DULUTH, Ga. — ViaSat has announced two important enhancements to its LinkStar VSAT networking system.

ViaSat said LinkStarS2 now incorporates the new DVB-S2 waveform offering up to 30 percent greater bandwidth efficiency — substantially reducing network operating costs. LinkWayS2 remote terminals integrate into the S2-capable LinkStar hub

systems — enabling powerful and flexible hybrid star/mesh network architectures.

ViaSat said LinkStar is now one of the leading DVB-RCS capable VSAT networking system, with well over 100 operational networks and 80,000 remote terminals worldwide. LinkStar serves a broad array of business and government applications ranging from broadband IP enterprise networks to distance learning. The new S2-capable LinkStar hubs and remote terminals are fully compatible with existing standard DVB-S LinkStar remotes and offer an easy, cost effective transition to the benefits of DVB-S2, ViaSat said.

LinkWayS2 incorporates a DVB-S2 receiver into a new generation of LinkWay remotes — enabling hybrid star/mesh networks to be managed by a single hub. LinkStarS2 and LinkWayS2 interoperate seamlessly — offering maximum network design flexibility.

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Telenor Unveils Aggressive BGAN Sales Program

OSLO, Norway — Telenor Satellite Services, a subsidiary of Telenor of Norway, unveiled on Wednesday, February 8, its 2006 worldwide incentive program for its Broadband Global Area Network (BGAN) Service.

BGAN is commercially available to customers in Europe, the Middle East, Asia and Africa with commercial launch throughout the Americas expected in the 2nd quarter of 2006.

Through the end of June 2006 or while supply lasts, Telenor said it is offering free airtime and BGAN equipment discounts for customers who turn in an old handheld satellite phone for a new BGAN terminal. Under the terms of this exclusive Telenor program, BGAN users can receive a combination of free airtime and equipment discounts worth up to \$1,500, depending on the terminal model purchased.

“With BGAN, customers get the same low-cost voice calls, less than a dollar a minute, combined with high-speed data and Internet connectivity, in a ‘go anywhere’ satellite terminal,” said Anders Kallerud, vice president of sales for Telenor.

Telenor has also eliminated BGAN activation fees and has launched the Telenor BGAN Anytime Plan that eliminates monthly subscription fees. Instead, users of the Telenor BGAN Anytime Plan agree to a low charge of 10 MB of airtime per month. The 10 MB are good for a year and unused monthly portions automatically rollover to the next month. **SM**



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COVER STORY

Managed Networks as a Business Model in Satellite Communications

Bruce Elbert

President, Application Technology Strategy, Inc.

Our traditional industry core is the satellite operator whose business model involves launching and operating satellites and selling their transponder capacity to the wide variety of video, voice and data users. Owing to this, there are enterprises on the ground that utilize this bandwidth as one ingredient of their process of providing a service to consumers, businesses and governments. This division was referred to by analysts at Bear Stearns as the *space game* and *ground game*, respectively. Players of the ground game usually employ teleports to aggregate customers and manage their networks in a reliable and cost-effective manner. To be successful at the ground game, you must provide services that are user-friendly and affordable, something that was first demonstrated by Equatorial Communications, a data broadcaster from the late 1980s that exploited a successful but short-lived market. Later in the 1990s, managed services proved they could grow and be sustained by digital DTH operators in the US, Europe and East Asia.

The present decade of the 21st century has opened up many possibilities for managed networks run by smaller operators who address special segments that are not well served by terrestrial operators. Technologies that allow various forms of content to be delivered to literally any size of audience and that permit efficient return of data over the same satellite are available at low prices. A satellite network can be assembled from standardized components and managed by a single entity through a teleport and even over the Internet. In the following paragraphs, I review the characteristics of managed networks using satellites and



discuss what factors encourage success in the global marketplace.

What Is a Managed Network?

Fundamentally, a managed network provides a telecommunications capability for a particular class of user (business-to-business markets involving enterprises and government agencies, not consumers). Such customers care more about the services provided and not particularly that they are offered via a satellite system (in fact, they should not be able to recognize

that a satellite was even involved). This has been referred to as technology agnosticism. The selection of the best target is critical to success. Information for the end users would be made available to common customer-premise (or even hand-held) devices: telephones, IP routers, PCs, video displays, sound systems and the like. Another typical requirement is that the remote user not require specific technical knowledge beyond what is comfortable. The terminal device could be installed and maintained by or for the user; however, any user-installed equipment should be simple to configure. The managed network solution should be affordable by the user, which means it should cost less than the best alternative.

Requirements and Guidelines

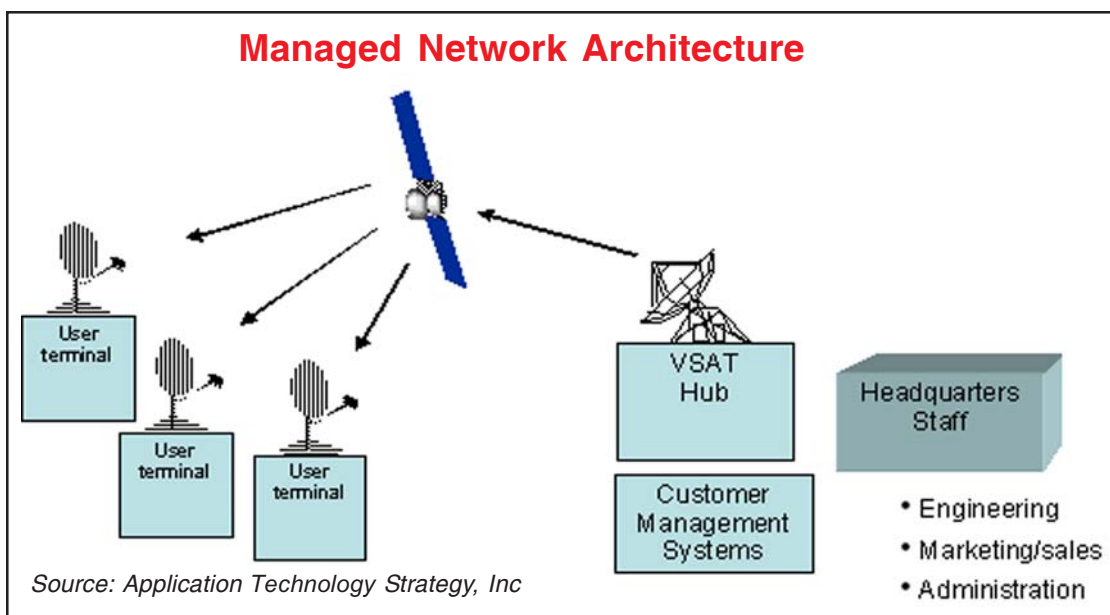
While meeting all of these demands will benefit business-to-business customers, they do not guarantee a commercial success in the market. Anyone who has worked at managed networks knows that it's a never-ending battle to stay competitive and find those attractive anchor customers who make it work as a business. A managed network presupposes an investment of ground and space resources – someone must design the system and allocate capital assets that

COVER STORY

can deliver the required services. We have two issues here – precisely what assets should we include, and how can we be sure that there will be an adequate financial return to the “owners”? This is why a managed network is also a business model.

Getting our arms around the business model takes a lot of effort and experience. A million new ideas for Internet-based businesses were explored in the late 1990s and many were funded by venture capital firms. In addition to the preverbal “elevator pitch”, the VC expected a new Internet start-up to provide a business plan that addressed a set list of prerequisites. Here is a sample of operational requirements that could apply to a satellite-based business model:

1. Anticipated customer requirements – **rather than waiting for the RFP**
2. Satellite-based application platform – **using the benefits of the technology to the fullest**
3. Technical staff – **expertise in all critical aspects of the system and customer use**
4. Service management architecture – **capable of configuring the network for new customers and able to maintain a satisfactory quality of service**
5. Inside and outside sales – **reputable people who can find qualified customers and sign them up appropriately**
6. Customer support staff – **immediate and effective response to calls for assistance**
7. Business controls – **assure that proper bills are sent and money collected in a timely manner**



8. Relationships – partners who provide some of the important elements and services (above) without the corresponding direct investment

Mature markets in developed countries are attractive because the money is there; however, so is the competition. For this reason, many are exploring how managed networks can be applied to developing regions where there is unfilled demand. Getting the application platform to work correctly in such regions requires proper definition of the following:

- The geography to be covered and the satellites capable of doing this
- Appropriate placement of the hub in a place with good infrastructure (site, terrestrial network, human resources, and business environment)
- Solving the regulatory problems, involving trans-border data and financial flows
- Centralized control, response to customer requests (easy with respect to the hub, but potentially difficult for the remote user)

Business Model Example

I’d like to draw from past experience in order to examine a simple but effective managed network and its associated business model. Illustrated below is a one-way content distribution network for digital information using the Internet Protocol as the common denominator. The managed network to be provided would give a business-to-business customer the means to distribute files and streaming media on a point-to-multipoint basis. In this example, we consider the capital expense (CAPEX) and operating expense (OPEX) that determine the revenue requirement for a given rate of return. This is a classical analysis of the type common in the telecommunications business. We are not addressing the revenue “top line” of the income statement as this depends on the nature of the market and how the customers will pay.

The following table is a simple spreadsheet model for this platform, identifying the major components at the hub and remote sites. What we are looking for is the equivalent monthly cost that must be covered before the network

COVER STORY

Network Business Model

		CAPEX	Depreciation	OP EX	Monthly
		\$K	\$K	\$K	\$K
Central Facilities					
Hub		5000	83	30	113
Satellite				120	120
Customer support		1000	17	60	77
Headquarters		2000	33	120	153
Subtotal		8000	133	330	463
Remote Site		\$			
User terminal		150			
Software		50			
Other equipment		100			
Subtotal		300			
Number per sites		50	500	5000	50000
Monthly per site	\$	9266.67	926.67	92.67	9.27

Application Technology Strategy Inc.

can operate at a profit. Capital expenses in the CAPEX column are converted to monthly equivalent costs by calculating their straight-line depreciation over a period of 60 months (5 years). While this correctly represents the consumption of capital, we have ignored other aspects of the annualized cost such as interest expense and taxes.

The values in this table indicate orders of magnitude and are not intended to represent a real network. It shows, for example, that CAPEX is dominated by hub and other brick and mortar facilities. The cost of the remote site, on the other hand, is quite nominal because it is for a small receive-only installation. Furthermore, the OPEX includes large monthly sums for transponder capacity (e.g., 36 MHz) and headquarters staffing. An interesting outcome of this simplified analysis is that the monthly per site values in last row are strongly a function of the number of sites. The total inclusive cost per site is nearly \$1000 at 500 sites but drops by a factor of

100 to less than \$10 at 50,000. This is because there is a large fixed cost (hub, bricks and mortar, staff and satellite transponder) that must be “amortized” over the number of user locations. Because this is a one-way model, I have ignored the cost of any return channel provided either terrestrially or over the satellite. This would add another element to monthly cost and must be evaluated in a similar manner (i.e., a fixed cost to be amortized along with the monthly cost of the added capacity).

Business models like this one are easy enough to put together and millions have no doubt been proposed. They become incredibly complex as analysts subdivide the elements into smaller and smaller constituents on many successive pages of an interlinked workbook. The problem with such models is that only the model maker really understands what is going on. A simple model like the one suggested above is often valuable for understanding what matters and where

the risks reside.

Developing a Business

Managed networks now serve developing regions using hub facilities and staff in well established centers in North America, East Asia and Europe. As mentioned above, this has the potential advantage of accessing markets without existing competition and reducing financial exposure for the largest part of the investment – because we are placing a major part of investment (and staff) in a country friendly to the business. A key to success is having the right partners in the area being served; however, this is easier said than done. If you can do it, you will probably succeed (the obverse is true, as well). Therefore, spend as much time picking a country and partner as you do on technology and funding.

The business model is likewise a critical part of a managed network. As illustrated in the sample spreadsheet, the CAPEX can be compiled based on the architecture and technology elements. These can be estimated from the major companies that supply to the ground game of our industry. Likewise, quotations for satellite capacity can be obtained from the relevant satellite operators. If your business warrants, you can even get a huge bulk discount on capacity by purchasing your own satellite. OPEX, on the other hand, is usually harder to fathom because we won’t know everything that could possibly be needed to address the eight items previously listed. Therefore, it is best to err on the high side and then look to ways to refine the estimates.

Before you can predict your “bottom line”, it’s best to put all costs on a monthly basis. A start at this is done in the suggested model, but we also need to include other financial items such as interest expense, taxes, insurance, licenses, and other government-mandated

COVER STORY

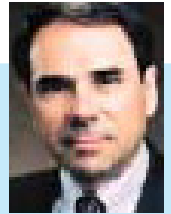


items. Subtracting the total monthly cost from the estimated revenue provides the profit or earnings. Many start-ups in the Internet economy ignored this approach and instead focused on something called EBITDA - earnings before interest, taxes, depreciation and amortization. A conservative approach sticks with what I refer to as GOROI - good old return on investment. This is what future stockholders really are interested in.

Making Your Idea Happen

While most MBA programs teach how to compile a decent business model, one has to look very hard to find clear guidelines for managed networks. It's been a matter of the entrepreneurial "gut" where business analysts were relegated to preparing financial statements after the fact. There are many uncertainties involved, but that is not a reasonable excuse to leave this to chance. Most of the key levers are rather easily determined by taking the time before beginning a rollout. It's a little late to do this homework after sinking millions into the space and ground games. **SM**

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



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Further European Consolidation Still Likely

By Chris Forrester

You would think that with Intelsat mopping up PanAmSat, and SES Global absorbing New Skies Satellite, the satellite world could take a breather and digest these latest meals before going on for its next 'eat or be eaten' feed. Not so. In fact more than 30% of the world's satellite capacity is non-aligned in that they comprise national or tightly-controlled regional satellite operators. And there are dozens of them, many in the Asian region, but major players in Europe like Turksat, ArabSat, NileSat, Amos (Israel) and others. In late February, Paris-based Eutelsat confirmed it is looking to take a larger stake in Madrid-based Hispasat, in which it already owns a significant share. "We continue to express interest in increasing our stake in Hispasat, which is an important part of our strategic planning. We await the right conditions to be able to increase our participation," said Eutelsat's deputy CEO Jean-Paul Brillaud.

At the moment Eutelsat is concentrating on settling the organisation down following its Initial Public Offering (IPO) last December. Eutelsat's chairman & CEO Giuliano Berretta, and his executive team, told analysts on Feb 12 that "solid momentum" was being achieved in its activities, and he reported upbeat earnings with a near-79% EBITDA margin and a healthy improvement on the position just six months ago. Indeed, Berretta upgraded Eutelsat's growth guidance from 2% to 2.5% this year, and to an average over the next three years of "above" 4.5% (and EBITDA margin expectations of "over" 76% over the next 3 years). In the period to Dec 31st Eutelsat reported revenues up



**Eutelsat chairman & CEO
Giuliano Berretta**



SES Global President Romain Bausch

"We continue to express interest in increasing our stake in Hispasat, which is an important part of our strategic planning. We await the right conditions to be able to increase our participation."

Jean-Paul Brillaud, dep CEO Eutelsat

2.6% to •377.5m, and a net loss of •21.2m. The IPO allowed an impressive •915m of debt to be paid down, reducing the company's debt burden from •3.16bn to •2.24bn. In other words Eutelsat is now well placed to make acquisitions.

However, the comparison of pre-and-post IPO accounts, plus the complications around the new creation of Eutelsat Communications out of the 'old' Eutelsat makes this a challenging set of numbers to interpret. Moreover the accounts have also to report complex items like "deferred tax consolidation" in connection with Atlantic Bird 1's earlier problems and other exceptional items not least the charges and fees wrapped around the IPO.

But besides saying they would like to own a greater share of Hispasat, the analysts call and more open reporting obligations required by the public shareholding revealed that Eutelsat is also fighting a massive demand from the French taxman to pay \$83m in unpaid back taxes. The squabble is centred on losses claimed by Eutelsat over its acquisition of its initial stake in Madrid-based Hispasat. Back in December 2003 Eutelsat shifted ownership of its Hispasat stake to a German subsidiary – and in doing so was able to recognise a •140.4m capital loss on the acquisition – and hence the present tax squabble over a claimed tax saving of •35m, further impacted by interest claims from the tax authorities. "Eutelsat S.A. [the predecessor company to Eutelsat Communications] is contesting the

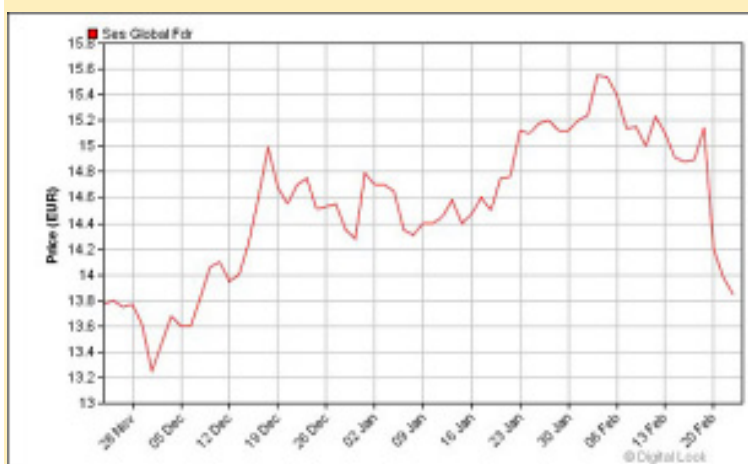
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grounds for these tax reassessments and, in the light of the information in the Company's possession at the date on which the interim accounts were authorised for issue, has not recognised a corresponding provision for risk," said a statement from the company.

Berretta also confirmed that Eutelsat is bringing forward its cap-ex plans in order to exploit a new, although unnamed, growth opportunity. This means that the planned Hot Bird 9 will be dramatically advanced from a planned 2008-2009 schedule, allowing Eutelsat to relocate Hot Bird 3 sooner than expected. Eutelsat will mostly finance HB9 from its own resources, other than about €80m of net capital expenditure split between 2007-2009. HB3, when relocated, will go to one of three possible locations. One option is "near 13 deg East in such a way that a [double LNB] could receive broadcasts from both locations. Other options are being studied and a decision will be made in the next month or so, although nothing will be moved much before June or July this year. Our preferred option is not to be too far from 13 deg East [Eutelsat's major 'Hot Bird' position], which gives us additional security," said Berretta. The HB3 option also depends on the successful launch season now underway (HB7A, due for launch in late-February, and HB8 scheduled for launch in May). Also depending on these launches being successful is the move of HB4 to sit alongside NileSat 101 and 102 for the Mid-East market.

As to future video demand, deputy CEO Brillaud said Eutelsat was disappointed in the availability of HDTV decoders and chip-sets in Europe, which was impacting the launch of HD channels, but they anticipated HDTV being a significant driver for growth starting next year. Eutelsat also broke down its revenues into geographic regions, and it will be interesting to see how this fluctuates over the next years. Currently the UK is Eutelsat's most important single market (based on invoicing addresses) representing 17.1% of its income (€67.4m), followed by France at 14.9% (€59m) and Italy at 14.1% (€55.68m). France, over time, might be impacted by the current consolidation between Canal Plus and TPS, but there's not likely to be a loss of transponder capacity for some years to come. However, this potential transponder loss is more than compensated for by a seemingly buoyant demand from Italy in general and Sky Italia in particular.

Eutelsat's largest overall geographic region is 'greater' Europe (other than those countries mentioned) and representing an impressive 32.9% share of income (€129.7m). In this regard Eutelsat's risks are well spread. The 'Americas' brings in 8.5% of income, while the Middle East is earning just 4.8%. Miscellaneous markets not mentioned bring in 7.7% of income. Eutelsat also earned €17.4m, partly as compensation for the late delivery of a satellite and partly for service



SES Global share price

interruption (on Atlantic Bird 1).

The financial markets seemed to like Eutelsat's story. BNP Paribas, for example, upped Eutelsat to their 'outperform' ranking,

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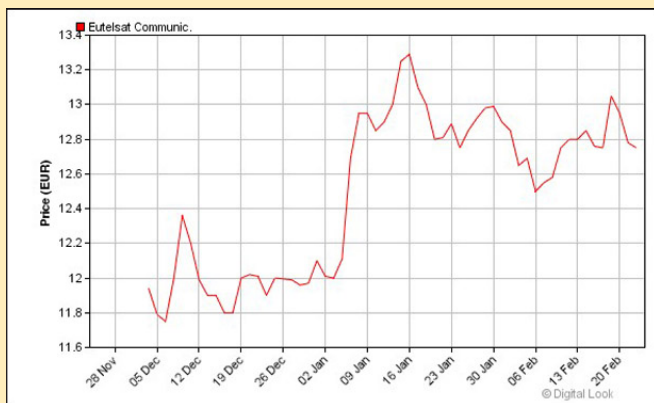
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Eutelsat share price

from 'neutral'. "After a bumpy IPO process, confidence in the company and fundamentals and management is reinforced by the strong set of numbers and the slight increase in guidance," said the

bank's note. Morgan Stanley also raised its share price targets (in the range •13.50-•15.50) although said Eutelsat would "struggle to attain fair value while the overhang from private equity shareholders remains". Some 65% of Eutelsat's stock is, says the bank, in the hands of management and private equity investors who had previously indicated their wish to sell. The 'lock up' on that stock ends in June.

Morgan Stanley also says it remains more conservative than Eutelsat on its future revenue guidance, blaming the

challenges of migrating DTH programming to alternate orbital positions.

And potential consolidation is not limited to Eutelsat. We now know that SES Astra is in discussion with ArabSat about a joint-marketing and sales campaign on some of ArabSat's spare capacity. Khaled Balkheyour, CEO at ArabSat, speaking at February's Satellite 2006 event in Washington, confirmed that the talks centred on potential new clients and services from and to Africa. "There's a discussion looking at the Africa market together with ArabSat and Astra. We are not competing, and it is just talks at the moment, but it could also be a new craft dedicated to the area although this is dependent on what we agree the size of the potential might be."

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FEATURES

Coincidentally, SES Global also released a batch of numbers based on a Dec 31st trading position. While the overall story from SES Global's end of year results was undoubtedly positive, SES' president and CEO Romain Bausch told analysts Feb 20 that delays in the delivery of two satellites (AMC-23 and AMC-14) would impact overall revenues, as well as impact the group's EBITDA margins. SES repeated guidance that double digit growth would average 10% in the 2005-2007 period, but with a 13.4% growth last year now achieved, this suggested that 2006 revenues would more likely grow by a single digit increase. Fleet utilisation stood at 74%, helped by an 11% increase in fleet capacity that stood at 549 transponders in use out of the 745

for North American operation, and had been expected on station about now, but will not launch until Q3 this year. He tried to put the delays into context, and in fairness a few months delay is unimportant in a 15 or more year lifespan of a satellite. Nevertheless the delays had impacted SES' revenues to the tune of some \$24m, and thus the damage to the market's anticipated – and promised – “double digit growth” story.

As to last year's results, operating profit showed a healthy improvement by 21.1% to •476m (from •393m) as sales increased 16.7% to •1.258bn from •1.078bn, with operating revenues up 13.4%. Full year net profit rose 12.1% to •382m (from •341m). Contracted “and fully

increase in revenues last year. SES-Astra had a total 1064 TV channels within its portfolio, with fresh capacity booked for HDTV transmissions by BSkyB, Pro7/Sat1, Premiere and the BBC. Astra's fleet utilisation stood at 90% (183 out of 204 transponders. 6.5 new transponder contracts were sold for UK use during the year, and extra transponder capacity brought on stream as a result of the increased bandwidth secured on Eutelsat's EuroBird craft at 28.5 deg East.

While it was still early days, SES has benefited from growing success over Africa. Astra 2B's steerable beam (28.2 deg East) and its 8 transponders was aided by 33 transponders from Astra 4A (operating from 37.5 deg W), commercialised last June, and with total sales standing at 8 transponders (or 19.8% utilisation). AsiaSat's position was that it was still operating in a “challenging market environment”.

Bausch was especially robust in his expectations of HDTV, with Astra already carrying 8 high-def channels, and expecting more than 20 channels to be present by year-end. There would be, said Bausch, a long period of HD simulcasting alongside Standard Definition digital channels in Europe. Bausch is also pursuing SES' ambitions for Canada, and for Mexico, with dedicated new satellites for those markets – and hints that further acquisitions “provided they make commercial sense” are also in his mind. **SM**

Eutelsat's revenue growth (•m)*

Sector	H1 2005-06	H1 2004-05	+/-%	Comment
Video	259.0	255.7	+1.3%	in line
Data/Value Added	83.1	77.0	+7.9%	“Robust”
Multi-use leases	33.5	32.1	+4.2%	Renewed contracts
Misc	1.9	32		
Sub Total	377.5	368.0	+2.6%	
Non recurring	17.4	3.1		Settlement of AB1
TOTAL	394.9	37.11	+6.4%	

Data: Eutelsat

available.

The “single digit” comment rang alarm bells in the financial markets, with at least one bank immediately marking SES Global's stock down saying that revenues would be squeezed this year. SES stock price had hit a record •15.70 earlier this month having risen by some 40% during the year, but promptly fell by some 6% on the day. SES chairman Romain Bausch, in a subsequent analysts call, expressed surprise at the market reaction earlier that day.

CFO Mark Rigolle said AMC-23, safely launched in December, was some three months late into orbit over the Pacific region. AMC-23 has Boeing's broadband-to-aircraft system as its main client. AMV-14 is fully leased by Echostar

protected” backlog is up 7.6% at •6.49bn, while the gross backlog is 6% higher at just over •7bn.

Meanwhile, SES-Americom signed up new contracts for 42.5 transponders helping take its utilisation to 70.8%, representing a net increase of 40 transponders, with pricing for new capacity continuing to improve during the period. Americom's Government Services division was enjoyed continued growth, and a 20%

London-based **Chris Forrester**, a well-known broadcasting journalist is the Editor for Europe, Middle East and Africa for SATMAGAZINE. He reports on all aspects of the industry with special emphasis on content, the business of television and emerging technologies. He has a unique knowledge of the Middle East broadcasting scene, having interviewed at length the operational heads of each of the main channels and pay-TV platforms. He can be reached at chrisforrester@compuserve.com



REGIONAL UPDATE

Latin America: Key Market Trends for 2006

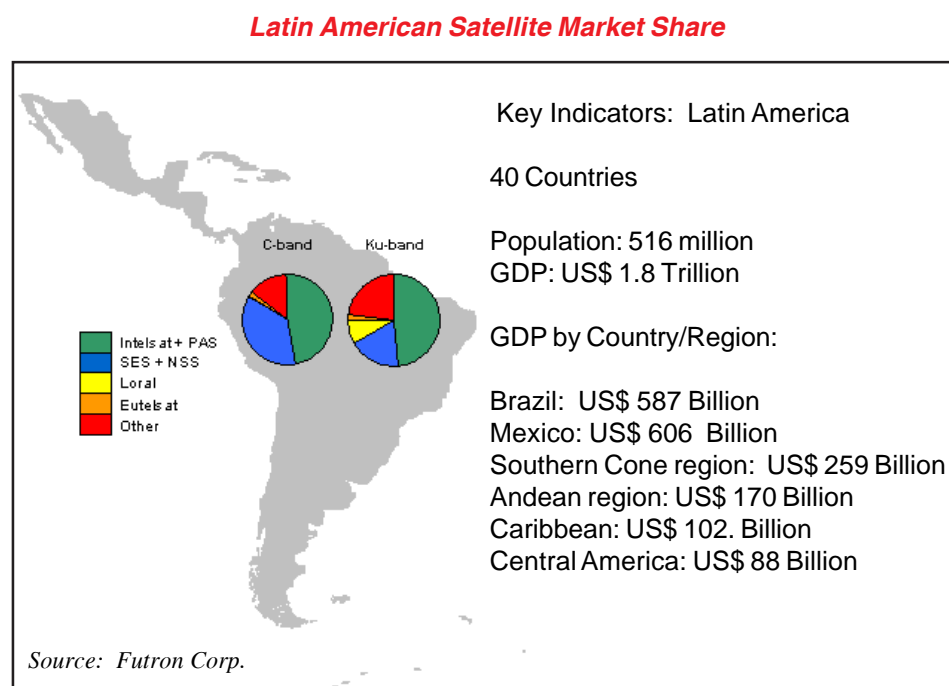
By Bernardo Schneiderman

The consolidation of key global satellite operators Intelsat and PanAmSat, and SES Global and News Skies is now underway in the Latin America region. The breakdown of the market share of the merged entities in Latin America is presented by the graphic below:

Beside this movement among the global players, Venezuela, Brazil and Argentina are going ahead with their government-led satellite programs. Venezuela had already contracted the manufacturing of the satellite and the launch program in China. Brazil is planning to launch the RFP of the Brazilian Satellite Program with 3 satellites during this year after the Brazilian Space Agency get hold of the project during the first semester of 2006. Argentina is in the process to get the final approval from the Congress to activate their satellite program. The key role being played by governments in the development of national satellite programs are due to strong sovereignty issues in the region.

At the recently-concluded Sat 2006 conference in Washington D.C., I had the privilege of moderating a panel on the Latin American satellite market and the consensus among the representatives of satellite operators, service providers, equipment manufacturers and consultants from the region are generally very positive and optimistic for 2006. Follows are key insights from the panelists:

Mauro Wajnberg, Director of Space Segment for Star One (the Brazilian satellite operator) said that despite of the pricing war environment and the competi-



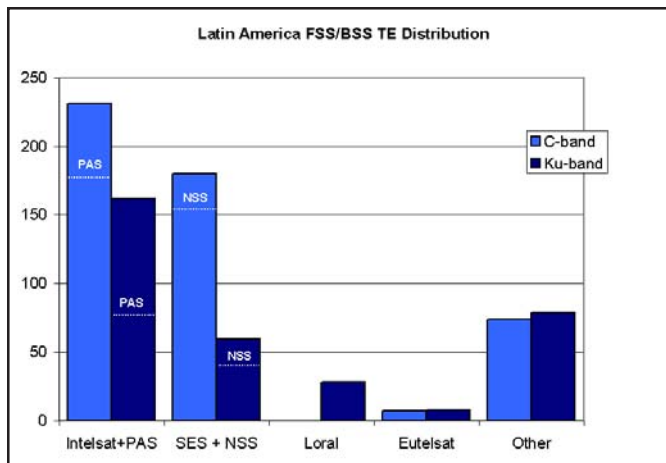
tion with global - and increasingly large - players, Star One is confident on the market demand and committed to the business. He said that Star One will launch two newsatellites, Star One C1 and C2, in 2006 and 2007 respectively. "Both of them, in addition to the replacement of our current C-band capacity, will add Ku-band capacity in the fleet as well as international coverage. We also added to our fleet in 2005 the Star One C12 satellite, which is an investment in SES Americom's AMC-12 satellite, said Wajnberg. He added that market opportunities can be found in segments like broadcasting. Advanced compression techniques and lower equipment cost may create a favorable environment for smaller broadcasters to join the satellite family. Worth to note is that 2006 will be a key year

regarding the definition of the standard for digital terrestrial television in Brazil. Following this milestone, the transition to digital television / HDTV will represent a great opportunity for the satellite sector regarding video distribution. Social inclusion programs for Internet access, rural telephony and distance learning have also great potential.

Maria Velez de Berliner, President of Latin Trade Solutions, presented some unique insights as well. "I continue to have confidence in the macroeconomic management of Latin America, particularly as local investors continue the trend to buy nationally denominated debt and interregional investment continues apace. Although I have doubts about Venezuela and Bolivia, I believe the other countries,

REGIONAL UPDATE

Latin America Transponder Supply



Source: Futron Corporation

particularly Brazil and Mexico; will be able to counter any wayward trends in these two countries. In the short range, three years hence, the most interesting interrogative is what will happen in Cuba if Castro leaves the scene during a Bush Administration. It is unlikely the US will remain uninvolved, although every single analyst I have consulted indicated, US involvement would be the worst that can happen in the region," she said.

Dolores Marta, VP of Latin America Sales for New Skies highlighted the following points in her presentation:

- The region is showing economic recovery since 2003
- Overcapacity is diminishing:
- Upcoming launches mostly replenishing capacity
- Consolidation and optimization
- Fill rates are expected to improve as Broadband and Television services expand
- Transponder Pricing stable and improving
- Demand is forecasted to grow: Television, IP Multimedia Broadband Networks

Erwin Mercado, VP of Sales of Intelsat for the Latin America Region confirmed that the Intelsat Satellite IA-8 that was launched last year is in full operation and just got a license to provide services in Brazil. This new satellite with full coverage has Ku and C-Band covering North and South America and Caribbean.

Mr. George Kapaz, President of Comsat International highlight the three

main projects that Comsat is working during 2006. In Brazil the first project called GSAC Program equivalent of E-Gov to provide Internet Access to the citizens and the Lottery National Program of Caixa Economica. In Colombia Comsat is participating of the Compartel Program that is equivalent of E-Gov to provide Internet access for the school and citizens.

In conclusion, the panel was very optimistic about the prospects of the satellite market in Latin America for 2006 and beyond. **SM**

Major Comsat Projects in the Region



Gesac

- Brazilian Digital Inclusion Program
- 4,400 sites served
- Broadband Internet Access, VoIP and other IT services supported
- Full user support with 7x24 help desk operation



Caixa

- Brazilian Lottery Program
- 9,000 sites served
- Satellite and wireless coverage
- Integrated with complex management and security services



Compartel

- Colombian Digital Inclusion Prog.
- 3,774 sites served
- Broadband Internet Access and other IT services supported
- Satellite and wireless coverage

Bernardo Schneiderman has over 20 years of experience in Satellite communications and is the President of Telematics Business consultants based in Irvine, CA. He has been working in Business Development, Sales and Marketing for Satellite Carriers, VSAT Equipment Manufacturer and Consulting Companies in the USA, Latin America, Brazil and Africa developing business for the Telecom, Broadcast and the Enterprise Market Segment. He was the editor of the Publication Brazil Telematics Newsletter during 1995-2003. He has a MBA from University of San Francisco with Major in Telecom and International Marketing and BSEE from UFRJ in Brazil. He can be contacted at bernardo@tbc-telematics.com



FEATURE

MPEG-4 AVC taps into the true Age of Convergence and Video Blogs.

by Laurent Jabiol

Back in 1994, the video experts from the ISO and the ITU created the well-known MPEG-2 International Standard, thus paving the way towards the massive deployment of Digital TV platforms all over the World - but also opening the DVD Age that since totally phased out Video Tapes.

Beyond the breakthrough performances that MPEG-2 was bringing when compared to Analogue transmissions, it has taken almost 8 years to go from 10 Mb/s per channel down to 3 or 4 today. However, as always, the decoder Standard was frozen since the very beginning. Thanks to such stability, the consumer electronics Industry did have the confidence to develop low cost, silicon based, decoders of many sorts, that numerous TV operators could then deploy in the magnitude of hundreds of millions over the last decade.

When looking at the other perspective of the Convergence, the PC industry did have rather different constraints. Needless to recall that PCs enjoy much shorter life cycles than any Consumer Electronics device do; and that a PC has anyway enough processing power to cope with software based decoders that can regularly be updated and/or changed. Many proprietary codecs have then been used by PC users who wanted to get videos through the Internet. Changing from one compression to the other, depending on the specific videos streamed or downloaded, is definitely not an issue for a PC... while this was naturally a show stopper for the entire Consumer Electronics Industry.

But now comes the MPEG-4 AVC International Standard. It has been released since 2004 by the same ISO and ITU experts Groups who created MPEG-2 ten years before. Beyond being a great compression technique that supersedes in quality most of the PC advanced proprietary codecs in use so far, once again the decoder specification is frozen since the very beginning. All blue chip companies providing silicon for the Consumer Electronics, as well as innovative start ups like Neotion, Sand Video™ or Sigma Design™, could then start investing in the design of MPEG-4 AVC decoder chipsets.

For the first time ever, the TV and the PC industries, but also beyond the Telecom one (cf.: DVB-H, DMB-T, and 3G), do share a common advanced codec that furthermore is an International Standard: the MPEG-4 AVC. That really marks the start for the long lasting expected PC-TV convergence. Then, rather than trying to create a new consumer electronics segment powered by PC based equipments that have never been able to invade our living rooms so far, the Market now foresees that anyone will soon be able to enjoy almost unlimited video and multimedia contents - no matter



if it is on the PC, a TV set top box, a portable media player, or even a Mobile phone.

Indeed Convergence would mean nothing if there was not a constantly growing base of tailored contents to enjoy on various platforms. In the first run, Convergence has been either tight in the ability to play videos downloaded from the Internet onto a DVD player (typically a Divx™), or more recently, focused on the ability to get original Pay TV packages through the telephone line. However, this could be considered as the Jurassic of the true Convergence because such deployments are still only possible through vertical operators who market triple play packages (TV over IP), or walled-garden applications (Video on Demand, iTunes™ video distribution platform, ...).

The 2006 perspective: going beyond the first wave of Convergence towards a true horizontal Market.

FEATURES

The original Vertical approach was indeed a necessary step because it had got the Convergence truly up and running. However, in most cases, it did not deliver so much due to distraction with what technology could deliver tomorrow, at the expense of understanding what customers actually want today. Subscribing to linear TV packages on a TV set, no matter if it comes through IP via a Triple Play package, does not mark a genuine breakthrough evolution - while as a mean, Convergence should end up creating new product categories, new markets, and in some cases even change the structure of existing industries.

Then, thanks to the proliferation of inexpensive digital video cameras, cheap editing tools, and broadband anywhere, it has created an environment where nearly anyone can be a filmmaker. The so-called video blogs can then invade the Internet and be ideally tailored - now that MPEG-4 AVC is standardized and appropriate for Unicast based downloads and streaming - to make their way into the Living Room (thanks to hybrid capable Consumer Electronics equipments).

Like Neotion, many companies believe that 2006 will really be the year of video blogs. Known as vlog for short, small independent filmmakers are recording portions of their lives and posting them online. It's remarkably easy to do, and the vlogs often provides more entertainment than many networks. This is no hazard if the day Steve Jobs introduced the video iPod™ to the World, he showed a playlist of video blogs on his computer. Since then, the iTunes™ online store, which is MPEG-4 AVC centric, began stocking vlogs (calling them video podcasts) and making it easy to download them for free viewing on the new iPods™.

Beyond Vlogs, many corporations, including among others top tiers compa-

nies like Yahoo™ or Google™, also announce a million channel universe whereby user will access in parallel to the broadcast TV (thanks to hybrid connexions) a mix of video programs together with rich media contents based on past viewing habits. Once again, MPEG-4 AVC will act in most cases as the enabler to empower the Digital Home capabilities.

Neotion ideally steps in this irreversible trend towards hybrid home network connectivity and advanced codec. Since January 2006, the company is coming up with plug-n-play smartcard size pocket MPEG-4 decoders ideally tailored for the tens of millions of legacy integrated digital TV sets that are being deployed since the digital switchover is initiated. Such external plug-n-play approach is perfectly tailored to for the Consumer Electronics as it helps maintaining a generic TV platform that shall last for a decade, while adding, when necessary, the best of breed Home Network Technologies - thus enabling the engineering excellence to always match the commercial common sense. **SM**

Laurent Jabiol, Deputy General Secretary and co-founder of NEOTION, has more than 15 years of

experience in Laurent Jabiol is managing director and co-founder of Neotion a provider of solutions enabling manufacturers to integrate MPEG-4 technology into their products. He can be reached at mpeg4@neotion.com



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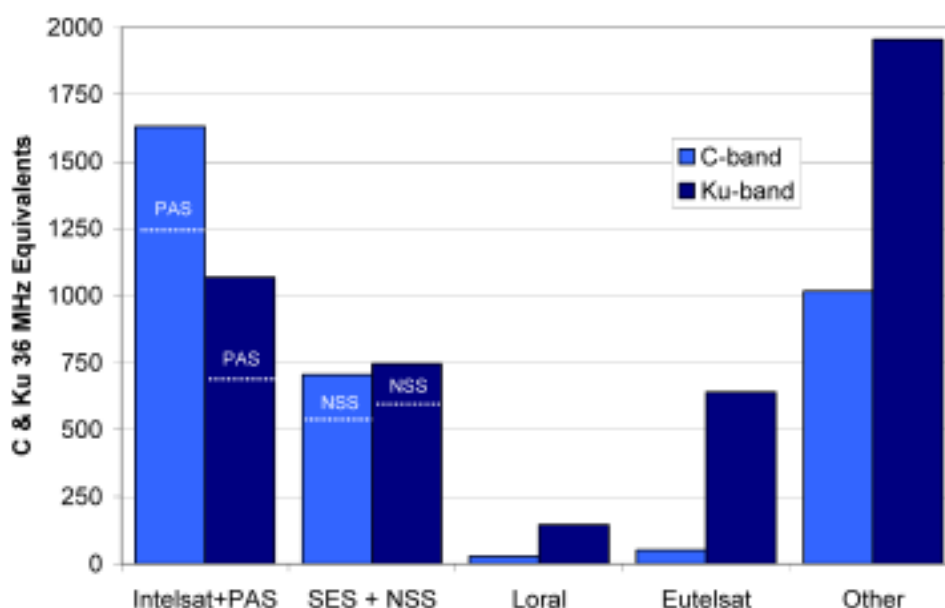
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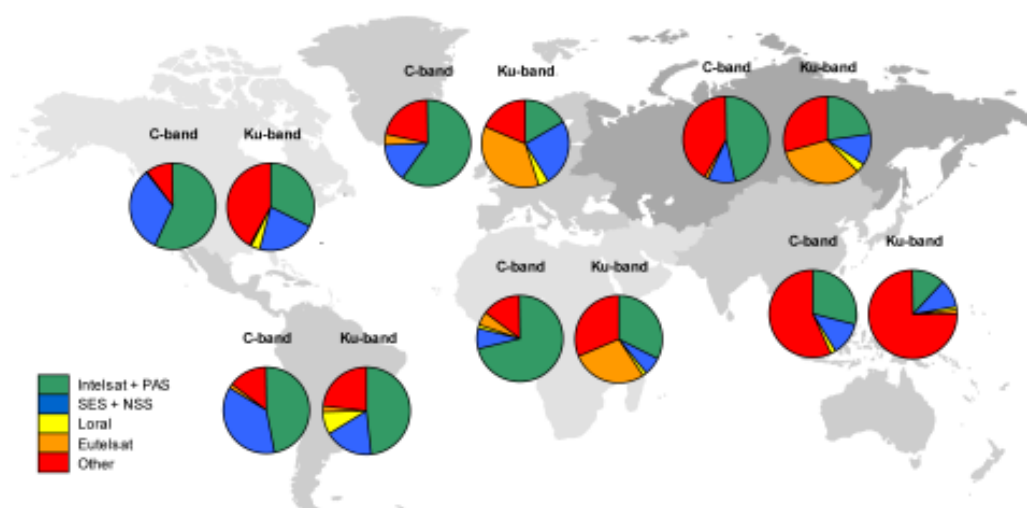
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MARKET INTELLIGENCE

Innovating at CABSAT:

Growing the Broadband Networking Environment & the Middle East Satellite Imperative

by Martin Jarrold

Chief, International Program Development

**DATELINE –
CABSAT 2006**
**Dubai International Convention
& Exhibition Centre, 7-9
March 2006.**

CABSAT has always been a great exhibition in the Middle East satellite show calendar, particularly for the satellite broadcast industry. Last year, the exhibition's 11th – and the first for the **GVF Satellite Symposium @ CABSAT** – I noted that the show was evolving, with a very much elevated presence on the exhibition floor from the satellite communications industry. In 2006, for CABSAT's 12th show, even greater things are anticipated, and GVF has lined-up another event to once again bring a value-added conference flavor to what is otherwise primarily an exhibition event.

On 9 March, SATLABS will hold its own DVB-RCS Symposium, which will focus on that particular technology standard, but the day before – 8 March – will feature a combination of the 2nd GVF Satellite Symposium @ CABSAT, entitled “Growing the Broadband Networking Environment & the Middle East Satellite Imperative”, and a satellite broadcast conference hosted by the Asia-Pacific Broadcasting Union and Arab States Broadcasting Union (ABU/ASBU), together with an opening joint plenary

between the ABU/ASBU and GVF. The joint plenary will feature speakers from Intelsat and PanAmSat who will address current Middle East issues in the satellite communications arena and satellite broadcast arena, respectively.

In the Middle East, as elsewhere, unprecedented demand for IP-based services is driving millions of potential end-users towards technology platforms that can deliver broadband communications solutions. Large-enterprise, SME, SOHO and residential users alike, want cost-effective access to these interactive solutions, and to meet this demand, DSL, cable modem, and other delivery systems, including satellite, are rapidly being deployed around the Middle East region. But, just exactly how are satellite-based broadband solutions competing in this dynamic environment?

The GVF Symposium program is structured to answer this key question, and to examine Middle East satellite broadband from three different perspectives – (1) understanding the nature of the region's demand; (2) examining the technology as a driver; and, (3) examining the applications as a driver.

Following the opening Joint Plenary of the ABU/ASBU and GVF, the **Defining, Enabling & Leveraging Middle Eastern Demand** session of the Symposium will address the key factors that determine and define the region's demand for broadband

communications services, and provide a comprehensive understanding of just exactly how the satellite service provider community is currently leveraging-off regional demand characteristics to focus its offerings towards identified needs. A panel of distinguished industry experts will provide their up-to-the-moment analysis of the current regional situation and the trends ahead. (See below for speaker details).

In the **Technology as Driver** session, another panel of seasoned industry executives will undertake its analysis from the direction of the primacy of the latest in state-of-the-art satellite technology. With technology agnostics populating the Information and Communications Technology (ICT) purchasing communities, the satellite product and service vendor focus in offering high-value, high-quality solutions, is increasingly channeled through diversified technology portfolios that provide for seamless, end-to-end, solutions. The key questions are: How is this being achieved, and how does the ready availability of highly innovative new satellite technologies drive the sales and revenue-stream successes of the sector? Does the technology close the sale, or is there much more to securing the deal? How are the new satellite standards influencing the equipment market? (See below for speaker details).

The noted panelists in the **Application as Driver** session will take a different



MARKET INTELLIGENCE

view. With a distinctly applications focused perspective, this session will provide an overall industry view and analysis of the distinct advantages of satellite-based solutions within the broadband networking environment. How are the advanced applications and networking requirements of the large corporate, SME and SOHO end-user being met with the “via satellite” option? How is the satellite industry continuing to evolve to supply state-of-the-art applications? How is the satellite service vendor community translating its offerings into clear competitive advantages for its customer-base? Is “the Application” the most important driver of sales growth and satellite industry success? (See below for speaker details).

All GVF Members are cordially invited to attend the 2nd **GVF Satellite Symposium @ CABSAT**, which is completely free of charge. A buffet luncheon will also be provided on a complimentary basis. The event is expected to be very well attended, and early arrival to secure seated accommodation is recommended.

2nd GVF Satellite Symposium @ CABSAT – The Program

8 March 2006 - 10:00 to 16:45
Dubai International Convention & Exhibition Centre
Level 2, Sharjah Room D

09:30 – 10:00 > Registration

10:00 - 11:30 > **GVF & ABU/ABSU Joint Plenary Session**

11:30 - 12:00 > Refreshment Break

12:00 - 12:05 > **Welcome to GVF Main Symposium Program**
Symposium Chairman:
· **Martin Jarrold, GVF Chief of International Program Development**

12:05 - 13:05 > **GVF Key Theme 1: Broadband over Satellite - Defining, Enabling & Leveraging Middle Eastern Demand**

Moderator:

- **Christopher Baugh, President, Northern Sky Research**
- Speaker:
- **Simon Bull, Senior Consultant, Comsys**

Roundtable Panel Discussion featuring:

- **Jawad Abbassi, President & Founder, Arab Advisors Group**

- **Paul Seaton, General Manager – Middle East & Africa, NewSat Networks**
- **Jaafar Najdi, CEO, Streamlink**

13:05 - 14:05 > **GVF Key Theme 2: Broadband over Satellite - The Technology as Driver**

Moderator:

- **Mohamed Youssif, GVF Middle East Correspondent**
- Speaker:
- **Harry Stribos, Director – Middle East & Africa, VSAT Networks, ViaSat**

Roundtable Panel Discussion featuring:

- **Patrick Agnieray, Vice President, Alcatel Space**
- **Flavien Bachabi, Regional Vice President Sales – Network Services & Telecom, Intelsat**
- **David Burr, Director – Internet Product Development, New Skies Satellites**
- **Juergen Schreiber, Sales Director – Europe, Satlynx**

14:05 - 14:45 > Buffet Luncheon

14:45 - 15:45 > **GVF Key Theme 3: Broadband over Satellite - The Application as Driver**

Moderator:

- **Martin Jarrold, GVF Chief of International Program Development**

Speaker:

- **Soheil Mehrabanzad, Regional Director, Hughes Network Systems**

Roundtable Panel Discussion featuring:

- **Morten Hald, Managing Director, Emperion**
- **Ulrich Kiebler, Director, NDSatCom – Abu Dhabi**
- **Eutelsat speaker to be confirmed**

15:45 - 16:00 > **Symposium Closing Remarks**

16:00 - 16:45 > Networking Refreshments **SM**

Martin Jarrold is the Director, International Programs of the Global VSAT Forum. He can be reached at martin.jarrold@gvf.org For more information on the GVF go to www.gvf.org



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Company Name	Symbol	Stock Price (February 27)	52-wk Range
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ANDREW CORP	ANDW	13.43	10.07 - 14.19
ASIA SATELLITE TELECOM- MUNICATIONS (ASIASAT)	SAT	17.30	15.91 - 20.55
BALL CORP	BLL	42.66	35.06 - 46.45
BOEING CO	BA	74.13	53.33 - 74.61
BRITISH SKY ADS	BSY	36.83	33.59 - 44.78
CALIFORNIA AMPLIFIER CORP	CAMP	10.10	5.23 - 12.59
C-COM SATELLITE SYSTEMS	CML.V	0.30	0.00 - 0.00
COM DEV INTL LTD	CDV.TO	2.38	0.00 - 0.00
COMTECH TELECOM	CMTL	31.62	22.9333 - 45.65
THE DIRECTV GROUP	DTV	15.80	13.17 - 16.79
ECHOSTAR COMMUNICATIONS	DISH	29.82	24.44 - 32.33
FREQUENCY ELECTRONICS	FEI	12.99	9.80 - 15.74
GILAT SATELLITE NETWORKS	GILTF	5.93	5.06 - 7.62
GLOBECOMM SYS INC	GCOM	6.36	5.09 - 8.44
HARRIS CORP	HRS	47.25	27.25 - 49.78
HONEYWELL INTL	HON	41.57	32.68 - 42.93
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INTEGRAL SYSTEMS	ISYS	28.56	18.18 - 28.75
KVH INDS INC	KVHI	10.51	8.54 - 11.64
L-3 COMM HLDGS IN	LLL	84.54	64.66 - 84.84
LOCKHEED MARTIN	LMT	74.06	58.28 - 74.97
NEWS CORP	NWS	17.14	14.76 - 18.63
NORSAT INTL INC	NSATF.OB	0.7938	0.43 - 1.51
NTL INC	NTLI	63.18	55.52 - 70.79
ORBITAL SCIENCES	ORB	15.47	8.84 - 15.48
PT PASIFIK SATELIT	PSNRY.PK	0.02	0.09 - 0.30
QUALCOMM INC	QCOM	48.35	32.08 - 49.45
RADYNE CORPORATION	RADN	14.23	7.15 - 16.33
SIRIUS SATELLITE RADIO	SIRI	5.23	4.42 - 7.98
SES GLOBAL FDR	SDS.F	12.45	6.70 - 12.47
TRIMBLE NAVIGATION	TRMB	41.04	26.64 - 44.55
WORLDSPACE INC	WRSP	11.56	10.26 - 26.00
VIASAT INC	VSAT	27.61	17.30 - 29.17
XM SATELLITE RADIO	XMSR	21.69	

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