



## Satellites on the Move



- Modems
- Converters
- Broadcast Modulators



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## MESSAGE FROM THE PUBLISHER

We have been making some important changes in our publications in the last few months in order to continue providing you with vital, up-to-date information in the most accessible format. Recently, we have totally redesigned our website, *Satnews.com* and added new features such as video interviews and downloadable podcasts. You can also now receive Satnews Daily updates on your PDA or mobile phone.



Regretably, during this exciting time of transition for our company and the industry, the longest standing member of our staff, Virgil Labrador will be moving on to pursue other opportunities, after nine years with Satnews. Virgil has been instrumental in the growth of Satnews to what it is now--a leader in the provision of cutting edge information on the satellite industry. When Virgil started with us as an advertising executive in 1998--there literally was no Satnews yet. We were then called Design Publishers and our products consisted of the annual directory, some books and CD-ROMs. Since then we have built Satnews.com as the definitive portal on the satellite industry and have launched several very successful web-based magazines such as *SatMagazine* and *MilsatMagazine*, thanks in large part to Virgil's innovation, creativity and tireless efforts.

We will certainly miss Virgil and his enthusiasm, professionalism and dedication. However, we wish him well in all his future endeavors. Meanwhile, a new editor will be taking over starting August 1st, Mr. Hartley Lesser. Hartley is an experienced multimedia journalist who brings in a wide background and IT skills to take Satnews to the next level.

## NOTE FROM THE EDITOR



All good things must come to an end. After nine years, I have to bid my farewell to Satnews, which has been a very important part of my personal and professional life. I would like to take this opportunity to thank our publisher Silvano Payne, for all the support he has given me over the years. I would also like to express my sincerest appreciation to all our readers and the many individual supporters and satellite companies that have faithfully patronized our publications over the years. My thanks to the Satnews staff, especially our associate editor, Peter Galace, our Sales Manager, Jill Durfee, our webmaster Simon Payne, and to all our contributing editors, writers and correspondents, too numerous to mention here.

I am proud to have been a modest part of Satnews and its development through some of the most exciting and storied times for the satellite industry. The one thing that I have learned from the experience of covering the industry in the last nine years is that the only constant is change. And in our own little way, I hope we were able to help you navigate through some of those inevitable changes. Thanks to you all for what has been an incredible run.

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 800 Siesta Way,  
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 Phone (707) 939-9306  
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 Website: [www.satmagazine.com](http://www.satmagazine.com)

### EDITORIAL

Silvano Payne  
**Publisher**

Virgil Labrador  
**Managing Editor  
 and Editor, North America**  
[virgil@satnews.com](mailto:virgil@satnews.com)

Chris Forrester  
**Editor, Europe, Middle East  
 and Africa**

Bernardo Schneiderman  
**Editor, Latin America**

Peter Galace  
**Editor, Asia-Pacific**

John Puetz, Bruce Elbert  
 Dan Freyer, Howard Greenfield  
 Dan Mackinster  
**Contributing Writers,  
 The Americas**

David Hartshorn, Martin Jarrold  
**Contributing Writers, Europe**  
 Baden Woodford  
**Contributing Writer, Africa**

Jill Durfee  
**Advertising Sales**  
[jill@satnews.com](mailto:jill@satnews.com)

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# Calendar of Events 2007

July 15 - 20

## The 22nd Residential Training Course on Satellite Communication Systems

University of Surrey, Guildford, Surrey, UK  
Telephone: + 44 (0) 1438 765647

E-mail: [eventsa3@theiet.org](mailto:eventsa3@theiet.org)

July 30-August 1

## GRIDCOM Summit 2007

Georgetown University Conference Center  
Washington, DC

Christine Fish

Tel: 212-885-2724

[Christine.fish@idga.org](mailto:Christine.fish@idga.org)

<http://www.gridcomusa.com>

August 2-3

## 11th Denver DBS Summit

Denver, Colorado

Phone: (303) 777-7055

Email: [denverdbms@msn.com](mailto:denverdbms@msn.com)

<http://www.LtenDenver.com>

Aug. 21-23

## LandWarNet Conference 2007

Greater Ft. Lauderdale/Broward County Convention Center, Ft. Lauderdale, FL, USA Terry Rogers

Tel: (703) 631-6238

E-Mail: [trogers@afcea.org](mailto:trogers@afcea.org)

<http://www.afcea.org/events/landwarnet/>

September 3-6

## World Satellite Business Week

Paris, France

Linda Zaiche

Tel: +33-149-237517

E-mail: [zaiche@euroconsult-ec.com](mailto:zaiche@euroconsult-ec.com)

<http://www.satellite-business.com>

Sep. 6-11

## IBC 2007

RAI, Amsterdam,

THE NETHERLANDS

Tel +44-20-7611 7500

[show@ibc.org.uk](mailto:show@ibc.org.uk) /

<http://www.ibc.org/>

Sep. 18-20

## APSCC 2007

Bangkok, THAILAND

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<http://www.apsc.or.kr>

September 24-27

## The 9th Annual Global Industry VSAT 2007 Conference

The Waldorf Hilton Hotel, London, England

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# INDUSTRY NEWS

## BC Partners Takes Ownership of Intelsat



**David McGlade,**  
**Intelsat CEO**

**NEW YORK** - UK-based private equity firm BC Partners has purchased 76 percent of Intelsat, Ltd., the world's largest commercial satellite operator, for \$5.03 billion in cash.

BC Partners, which has its business focus in Europe, will also take on Intelsat's debt load of \$11 billion and a further \$3.9 billion in debt. The firm received \$5 billion in financing commitments from Credit Suisse (which advised Intelsat on the transaction), Banc of America Securities and Morgan

Stanley. BC Partners' advisers were Merrill Lynch and Perella Weinberg. The acquisition is the largest in BC Partners' history.

Intelsat later announced the signing of a definitive agreement for the purchase of a majority of the shares of its parent company, Intelsat Holdings, Ltd., by funds advised by BC Partners and other investors.

Intelsat CEO Dave McGlade said this transaction highlights the significant value that Intelsat has created for its shareholders and the tremendous opportunities the business and employees will enjoy going forward.

"The company has thrived under private equity ownership, including the 2006 completion of the transformative PanAmSat combination that firmly established Intelsat's global leadership position. As a result, we have a keen appreciation for the financial and strategic support that a firm such as BC Partners can provide. We are confident that they will continue to endorse Intelsat's objectives for revenue growth and operating improvements," he said.

"Intelsat and the FSS sector are in the midst of a cycle of strong performance," said Raymond Svider, a managing partner of BC Partners. "Intelsat is the premier FSS satellite operator, with high-quality assets and a strong global brand. Its valuable cable and direct-to-home neighborhoods, strength in network applications, blue chip customer base and solid backlog of long-term contracts create an attractive investment opportunity. We look forward to working with and supporting Intelsat's management team as they pursue their growth strategies."

The BCEC funds-led group will acquire some 76% of the primary ownership of Intelsat Holdings, Ltd. in a transaction valuing the company's equity at around \$5.03 billion. Taking into account \$11.4 billion of debt as of March 31, 2007, the enterprise valuation implied by the transaction is about \$16.4 billion.

BC Partners described Intelsat as an attractive investment opportunity given its blue chip customer base, strong order backlog and extensive cable and direct-to-home services. Among BC Partners' technology acquisitions were German firm Telecolumbus, a Level 4 cable service provider, and French firm LD COM, a backbone, local fiber ring and web center operator. It also has major investments in the food and healthcare industries.

Analysts said the price paid by BC Partners was within expectations. Earlier reports said the six firms interested in Intelsat were willing to invest from \$4-6 billion for the satellite operator, which is based in Bermuda.

Intelsat bought rival PanAmSat Holding Corporation in 2004 for \$3.2 billion, creating the world's largest commercial satellite operator with 51 satellites. SES Global SA, the second largest satellite operator, has 43 satellites.

Founded in 1989, BC Partners describes itself as a leader in acquiring and developing businesses in partnership with management. It has invested in 63 acquisitions (excluding Intelsat) with a total value of \$64.3 billion, and took a leading role in 48 acquisitions with an aggregate value of \$47 billion.

Over the next five years, BC Partners expects its funds to acquire 15 to 20 businesses, with transaction values typically in the range of \$400 million to \$5.4 billion, with a cumulative enterprise value of over \$20 billion.

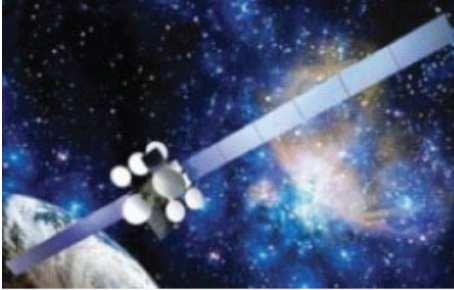
## Satellites Set to Dominate HDTV Market

**LONDON** — Satellites will become the most important mode of receiving high definition TV (HDTV) programming over the next four years.

IMS Research forecasts the global HDTV market to reach almost 150 million households by 2011, with some 40 percent of these households receiving HDTV programming via satellite.

IMS said the growth in satellite HDTV households in the next four years will be driven by the US and Western Europe. In

## INDUSTRY NEWS



**DirecTV-10 will broadcast HDTV programming in the USA.** (Boeing photo)

Western Europe, the slow growth of digital cable in recent years has helped position satellite as the most common method of receiving pay-HDTV. Recent consolidation of the cable TV markets in several countries is

expected to aid European cable HDTV growth over the long term.

This contrasts with the cable-centric US market, where the growth of digital cable and heavy promotion of triple-play and advanced services are expected to keep cable dominant in the US HDTV market through 2011. The US is forecast to drive the majority of worldwide cable HDTV growth over the period, however. Satellite is still expected to make substantial gains in the US, thanks to focused marketing efforts by US satellite operators to push HDTV as a competitive differentiator.

Europe is expected to surpass Asia Pacific by 2011 to become the second-largest HDTV market in the world behind the Americas. Much of this growth will be fueled by lower costs for MPEG-4 AVC set-top boxes for operators and consumers, more local HD content, better competitive pricing for HD services, the growing popularity of flat-screen TVs and sports-driven demand for HDTV.

### ESA, Thales Alenia Space Sign Contract for GMES Sentinel-1 satellite

**PARIS** - The European Space Agency (ESA) and Thales Alenia Space have signed a \$307 million contract for the design and development of Sentinel-1, the first Earth observation satellite to be built for Europe's Global Monitoring for Environment and Security (GMES) program.

The ESA Sentinels, composed of five satellites, constitute the first series of operational satellites responding to the earth observation (EO) needs of GMES, a joint initiative of the European Commission and ESA. Sentinel mission requirements focus on the continuity of existing services exploiting EO data and satisfying user requirements derived from GMES applications.

Sentinel-1 is expected to be launched in 2011 and will ensure the continuity of C-band Synthetic Aperture Radar (SAR) data with ESA's ERS and Envisat satellites. Important applications driving the mission concept include marine vessel detection, oil spill mapping and wind products and sea ice mapping.

The Sentinel-1 spacecraft is expected to weigh around 2200 kilograms at launch and image the Earth in swaths of 250 kilometers in diameter with a ground resolution of five meters. Sentinel-2 and 3, scheduled for launch in 2012, will support land and ocean monitoring, while Sentinel-4 and 5 will be dedicated to meteorology and climatology through atmospheric chemistry.

GMES is the response to Europe's need for geo-spatial information services. It provides autonomous and independent access to information for policy-makers, particularly in relation to environment and security.

### ILS Books over \$1 Billion in Launch Orders for Proton Breeze M

**PARIS** - International Launch Services (ILS) has brought in more than \$1 billion in new firm launch orders for the Proton Breeze M vehicle since the beginning of 2007.

ILS has exclusive rights to market the Proton vehicle worldwide to commercial satellite operators. Khrunichev State Research and Production Space Center of Moscow, one of the cornerstones of the Russian space industry, manufactures the Proton and is a partner in ILS.

The new business for ILS this year represents "an all-star list of customers," said ILS President Frank McKenna. "They include major operators, blue-chip companies that have been purchasing launch services for many years, as well as new entrants that are entrusting the launch of their businesses with ILS."

The new business includes Ciel 2, contracted through SES Americom for Ciel Satellite Group, for launch in 2008; CMBStar for Echostar, for launch in 2008; Nimiq 5 for Telesat Canada, for launch in 2009; One Mobile Satellite Ventures satellite for launch in 2009 (with an option for a second, beginning in 2010); a fifth-generation Arabsat satellite, for launch in 2009-2010; three satellites for other commercial customers and a multiple-launch agreement with SES for five launches and additional integration work through 2013. This is the largest single contract to date for ILS.

"We're moving at a healthy pace. In less than six months we



## INDUSTRY NEWS

have captured orders for 13 launches from eight customers, as well as a study contract that will likely lead to five more missions,” said McKenna.

### Alliant Techsystems Acquires Swales Aerospace

**MINNEAPOLIS, MN** - Alliant Techsystems, which produces solid rocket motors for the U.S. Space Shuttle fleet and structures for the International Space Station (ISS), has taken ownership of Swales Aerospace, a provider of satellite components and subsystems, small spacecraft and engineering services for NASA, the Department of Defense and commercial satellite customers.

The acquisition was subject to standard federal regulatory review and approval from the majority of shareholders in the employee-owned company. The Swales facility in Beltsville, Maryland is now the headquarters of ATK's Space Division within the Mission Systems Group. Mike Cerneck, the previous chief executive officer of Swales Aerospace, will lead the division, which includes the existing space structures and subsystems operations of ATK's current Space Division.

Recently, ATK's reusable solid rocket motors (RSRM) provided more than six million pounds of thrust as NASA's Space Shuttle Atlantis launched into orbit to begin a 11-day mission to the ISS to continue installation of two additional solar panels.

During the STS-117 mission, the crew will install the second and third starboard truss segments (S3/S4) that include a third set of solar arrays. In addition, the astronauts will retract the P6-2B

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## INDUSTRY NEWS

wing, installed six years ago in a temporary location, to provide clearance for the rotation of the new Solar Alpha Rotary Joint (SARJ) and the deployed S4 solar arrays.

### Astrium to Rocket Tourists into Space . . . by Jet

**PARIS** -European satellite and rocket system maker Astrium has unveiled a revolutionary new aircraft/spacecraft for space tourism at a special event ahead of the Le Bourget Airshow in Paris. Development of this hybrid vehicle is expected to begin in 2008 with a first commercial flight possible by 2012.

The Astrium space jet, which externally resembles a corporate jet, is designed to travel 100 km into space giving its four passengers more than three minutes of “zero G” or weightlessness. It will take off and land conventionally from a standard airport using its jet engines. Once the craft is airborne at about 12 km altitude, however, the rocket engines will be ignited to give sufficient acceleration to reach 100 km. It takes the space jet just 80 seconds to reach 60 km altitude. The rocket propulsion system is then shut down as the ship’s inertia carries it on to over 100 km, where passengers will become part of an elite few (mainly astronauts) to experience zero gravity in space.

The pilot will control the craft using small rocket thrusters enabling passengers to hover weightlessly for three minutes and to witness the most spectacular view of Earth imaginable. After slowing down during descent, the jet engines are restarted for a normal and safe landing at a standard airfield. The entire trip will last about an hour and a half.

Astrium proposes using the one stage system that is considered the safest and most economical to operate. Development of the space jet able to operate at altitudes between aircraft (20km) and below satellites (200 km) could well be a precursor for rapid transport ‘point-to-point’ vehicles or quick access to space, opening up previously unexplored territory. Its development will contribute to maintaining and enhancing European competences in core technologies of space transportation.

### DirecTV-10 Satellite To be Launched July 6

**MOSCOW**, DirecTV-10, a satellite of leading US pay TV provider DirecTV Group, Inc., will be orbited in July 6 by a Proton-M launch vehicle.

Russia’s Khrunichev State Space Scientific Production Center



**DirecTV 10.** (Boeing photo)

said a Breeze-M booster on a Proton-M carrier rocket will put DirecTV-10 into orbit. The booster is now at the Baikonur space center in Kazakhstan.

Launch services will be provided by

International Launch Services (ILS), a U.S.-Russian joint venture with exclusive rights for worldwide commercial sales and mission management of satellite launches on Russia’s Proton carrier rockets. The joint venture partners are Space Transport, Inc., Khrunichev State Research and Production Space Center and RSC Energia of Moscow. ILS has conducted a total of 46 commercial Proton launches since 1996, and has 15 scheduled launches through 2010.

DirecTV-10 and its sister satellite, DirecTV-11, are both dedicated HDTV (high definition television) satellites. They will be launched this year to provide DirecTV with national and local broadcast coverage in HDTV. They will be among the largest and most powerful Ka-band satellites ever launched.

DirecTV in 2004 entered into a contract with Boeing to build three Boeing 702 model satellites: DirecTV-10, DirecTV-11 and a ground spare. These birds will enable DirecTV to significantly expand broadcasting to their customers across the continental United States, Hawaii, and Alaska. In addition to expanded national HDTV broadcasting, standard definition TV broadcasting and interactive TV, DirecTV-10 and DirecTV-11 will provide the capability for DirecTV to broadcast local HDTV to 90 percent of its customers.

### In the Works: a More Powerful and “Prettier” ISS

**CAPE CANAVERAL, Florida** — This month will see the International Space Station (ISS) receive more electrical power for future projects and look a whole lot “prettier”.

The U.S. space shuttle Atlantis recently docked with the ISS after a two-day chase carrying with it a new segment for the station that includes a third set of solar arrays to provide more power for additional modules. It was the first space shuttle flight this year. Atlantis was to have originally launched last March but dents to its main booster rocket from a sudden hailstorm caused a two-



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month delay to ensure the spacecraft's safety.

Mission STS-117 and its seven astronauts have delivered and will install components to increase the station's electricity generating capability and prepare for the arrival of new laboratory modules from European Space Agency (ESA) and the Japanese Space Agency (JAXA). During its 11-day mission, Atlantis will attach to the ISS a new 35,000 lb. truss segment with a third pair of solar arrays. The \$376 million segment was attached to the station during the first space walk on June 11.

Attaching the new segment, however, will also make the station look "prettier. Mission launch package manager Floyd Booker said that with this flight, NASA hopes to see more symmetry in the station's shape. The ISS now resembles a letter "T." Adding the new segment will give it the much more pleasant appearance of a letter "H." The new shape has a practical advantage, however. It will make it easier for the station's attitude-control system to keep the ISS properly oriented. **SM**

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# EXECUTIVE MOVES

## SAT-GE Announces New Executive Team

**SINGAPORE**— Asia-Pacific region satellite operator SAT-GE announces a leadership team headed by Paul Heinerscheid, president & CEO.

With him are Andrew Jordan, general manager and VP sales; David Crenshaw, VP sales North America; Andy Frost, VP marketing & business development; Ronny Svang, VP finance & CFO and Jim Lynch, VP & general counsel.

Operations will be managed from Singapore and Sydney by Jordan, who joins SAT-GE after five years with Loft Communications, where he was founder and managing director. Jordan has over 16 years experience in the satellite industry and has held senior executive management positions in AsiaSat, PanAmSat and Measat.

“GE-23 is a unique asset for SAT-GE, ideally positioned between North America and East Asia. It can be used to deliver content and services in and around the Pacific basin. With the forthcoming Olympics in China, it is the ideal platform on which to transport video coverage of this important event in Asia,” said Jordan. “I am really looking forward to the challenge of making SAT-GE a success and delivering strong growth for the business.”

Jordan will be supported by Crenshaw who has responsibility for sales in North America. Crenshaw brings over 20 years of industry experience to the job having held previous senior and executive appointments in sales and business development for companies such as Intelsat, Spacenet, iBeam Broadcasting and Compression Labs.

## MSV Appoints Gary Sharpe Vice President, Investor Relations & Corporate Communications

**RESTON, VA**— Mobile Satellite Ventures LP (MSV) announced that Gary Sharpe has joined the company as vice president for investor relations and corporate communications.

Sharpe, with more than 25 years of experience in financial and corporate communications and media, has served as corporate officer or consultant for investor relations and strategic communications at companies in the telecommunications, energy, biotechnology, manufacturing and financial services industries in a career that began in 1982.

From 1997 to 2000, he led investor relations at Comsat Corporation, which was the largest investor in satellite consortia Intelsat, Inmarsat and New Skies. He also has directed communications in 15 capital markets transactions valued at more than \$4 billion.

“Gary’s extensive experience in global institutional investor targeting, capital-markets transactions, and corporate communications and governance will help us increase awareness of the company with key audiences at this important juncture in MSV’s development,” said Scott Macleod, MSV executive vice president and chief financial officer.

Sharpe earned a bachelor’s degree from the University of Washington, and has completed graduate studies in finance and accounting at the University of Pennsylvania-Wharton School, as well as course work toward the Chartered Financial Analyst credential through the CFA Institute. He is a past president and/or director of National Investor Relations Institute chapters in Seattle, Los Angeles and Washington, D.C.

## ProtoStar Appoints Dr. Eui Koh as President of ProtoStar Asia; Expands Asian Presence with New Singapore Office

**SINGAPORE** --- ProtoStar, a Bermuda corporation with principal U.S. operations in San Francisco, has opened an office in Singapore staffed with veteran satellite industry executives as the cornerstone of its expanding Asian operations.

ProtoStar President and CEO Phil Father said that the new office will be headed by Dr. Eui Koh, former President of the Asia Pacific Satellite Communications Council (APSCC) and previously an Asian regional executive with both Intelsat and New Skies Satellite (NSS). ProtoStar is developing a satellite constellation of high-powered geostationary satellites that will provide a satellite network enabling direct-to-home (DTH) services in Asia.

Father said the Singapore office will be staffed by Raghu Das, Vice President of Sales, formerly with Loral Skynet; Steven Smith, Vice President of Technical Operations, formerly with Intelsat and Patricia Chan, Marketing/Customer Support Manager, formerly with NSS.

“Our Singapore office will help us drive sales, marketing programs, customer support and ground systems as we focus

## EXECUTIVE MOVES

on launching our high powered satellite services supporting Asia's rapidly growing DTH operators," Father said. "Dr. Koh brings a wealth of satellite experience and knowledge from his many years of working with Asian satellite operators and their customers."

ProtoStar's first satellite, a Space Systems/Loral 1300, is currently undergoing refurbishment at Loral's Palo Alto, California manufacturing facility and is expected to be launched in May 2008.

### SIA's David Cavossa to Join Arrowhead Global Solutions



**David Cavossa**

**Washington D.C.**— The executive director of the Washington, D.C.-based Satellite Industry Association, David Cavossa has announced that he will be joining Arrowhead Global Solutions as Vice-President of Government Affairs in July.

Satellite communications provider Arrowhead is based in Fairfax, Virginia and has extensive contracts with the US military.

Cavossa has been with the SIA since 2001 and served as executive director since June 2004. The SIA represents US-based satellite companies in US legislative and regulatory bodies and conducts education and outreach projects. A selection committee composed of the executive members of the SIA will conduct a search for the new executive director, according to Cavossa.

### Genesis Networks Appoints Doug Triplehorn Vice-President for Asia-Pacific

**New York, NY,**— New York-based satellite service provider Genesis Networks has appointed Doug Triplehorn as Vice-President for Asia-Pacific. Doug Triplehorn previously worked at North Carolina-based End II End Communications as Vice-President for Sales.

Genesis Networks provides broadcasters, cable networks, production companies, and corporations with customized



**Doug Triplehorn**

video transmission services.

Triplehorn has almost 20 years of experience in the satellite industry having begun his career in 1988 with IDB. He has held various senior level positions at Keystone Communications, GlobeCast, Intelsat, Zap Media Advisers and most recently with End II End Communications. He spent seven years in Singapore with GlobeCast where he rose to CEO of GlobeCast Asia and then with Intelsat as Vice-President, Asia-Pacific for its Media and Entertainment business unit. At his current position at Genesis Networks, where he started June 1st, he will be responsible for growing Genesis' business in Asia and the Pacific region.

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## EXECUTIVE MOVES

### David D. Bowne Appointed Vice President of Sales at ND SatCom, Inc.

**FRIEDRICHSHAFEN, Germany** — ND SatCom, an SES Astra company and a global supplier of satellite-based broadband VSAT, broadcast, government and defense communication network solutions, has appointed David D. Bowne to the position of vice president of sales for ND SatCom, Inc., its subsidiary based in Dallas, Texas. Bowne is responsible for overall sales in the Americas region.

Chris Morris, president and CEO of ND SatCom, Inc., said Bowne is a 22 year veteran of the satellite industry having spent his years with the General Dynamics' legacy companies, TriPoint Global, VertexRSI and Vertex. "David's extensive experience in the commercial, government and defence markets is a tremendous asset to ND SatCom. We welcome him aboard and are excited about the experience and knowledge that David will bring to our team."

ND SatCom's presence in the Americas region consists of sales and service offices in Dallas, Miami, Denver, Washington D.C. and Mexico City. ND SatCom operates a state-of-the-art facility in Dallas built specifically for the design, integration and testing of both fixed and mobile satellite earth terminals.

### DigitalGlobe Promotes Three Vice Presidents

**LONGMONT, CO** - DigitalGlobe, a provider of high-resolution commercial satellite imagery and geospatial information products, has promoted three vice presidents: Dawn Sienicki, government relations; Mike McGill, U.S. sales, commercial business unit; and, Barry Clapp, international sales, commercial business unit.

Sienicki leads DigitalGlobe's Washington D.C. operations. Her responsibilities include serving as a liaison between the company and Capitol Hill and the executive branch, with a focus on policy, legislative and political matters. She is currently the elected president of Women in Aerospace. Prior to joining DigitalGlobe, Sienicki was executive director of the U.S. Chamber of Commerce's Space Enterprise Council, an organization Sienicki founded to better serve U.S. companies with investment and business interests in commercial space.

McGill leads DigitalGlobe's commercial sales activities in the U.S. His responsibilities include leading domestic sales of the company's satellite and aerial imagery products and supporting

the growth of reseller and partner relationships. Prior to joining DigitalGlobe, McGill served as market development manager and director of sales and business development at Autodesk.

Clapp leads DigitalGlobe's commercial sales activities internationally. His responsibilities include leading global sales, increasing international market share and building new revenue streams through strategic partnerships. Prior to joining DigitalGlobe, Clapp headed Worldwide Sales for Advanced Electron Beams.

### Northrop Grumman Appoints Carl Johnson Vice President Programs-Broad Area Maritime Surveillance

**EL SEGUNDO, CA** - Northrop Grumman Corporation (NYSE:NOC) has appointed Carl Johnson to vice president of Programs-Broad Area Maritime Surveillance (BAMS) within the company's Integrated Systems sector.

Johnson joined the company in 1982 as an engineer with the B-2 stealth bomber program and subsequently served as manager of the B-2 modification line and deputy B-2 program manager. In 2000, he was appointed Global Hawk program manager and in 2003 he was named vice president and Global Hawk integrated product team leader.

He earned a bachelor's degree in mechanical engineering from Northern Arizona University, a master's degree in mechanical engineering from Colorado State University, and a master's in business administration from the University of California, Los Angeles.

Northrop Grumman's BAMS solution incorporates maritime intelligence, surveillance and reconnaissance (ISR) capabilities into the Global Hawk Block 20 air vehicle. The system can carry up to 3,000 pounds of payload comprising a variety of sensors optimized for searching, tracking and identifying targets, while collecting and transmitting data over open ocean and littoral areas. Northrop Grumman's offer includes an RQ-4N air vehicle derived from the RQ-4B Global Hawk, uniquely configured for the Navy and the maritime ISR domain. A contract is expected to be awarded later this year.

In support of one of the company's strategic pursuits, Johnson will oversee all BAMS development and capture activities. His appointment solidifies the company's strategic effort to build a team that can effectively define and complement the U.S. Navy's existing manned maritime patrol and reconnaissance

## EXECUTIVE MOVES

force capability with a combat-proven, persistent, unmanned ISR aircraft.

### Anver Anderson Joins Advent Communications

**LONDON** — Advent Communications has appointed Anver Anderson as Regional Sales Director with special responsibility for the company's growth in Asia and the Americas.

Anderson is well-known in the satellite industry from his previous roles with BT and Inmarsat and his previous position with EuropeStar. He has also operated his own independent full services solutions agency.

"We are delighted that Anver has joined Advent", says Stephen Rudd, managing director of Advent Communications. "Anver brings Advent the benefit of his very broad experience and his knowledge of the international satellite business from other roles."

"Advent is still one of the best-known names amongst the satellite uplink manufacturers," said Anderson, "with an excellent reputation for the durability of its products and customer support. I am very pleased to be joining a company with this standing in the marketplace."

Based in London with offices in Singapore and Boston, Advent has been a strategic arm of the Vislink Group since

2000. Advent's goal is to deliver the expertise and innovation for end-to-end communications solutions in demanding environments. **SM**

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## NEW PRODUCTS

### Wavestream Unveils Matchbox Series of Solid-State BUC Amplifiers

**SINGAPORE** — Wavestream Corporation, a manufacturer of compact, solid-state power amplifiers, has unveiled its newest series of outdoor solid-state Block Upconverter (BUC) amplifiers for Ka- and Ku-band applications.

Named the Matchbox Series for its small size and weight, these amplifiers pack in excess of 40 Watts of Ku-band power and 10 Watts of Ka-band power into a 9.8- by 5.4- by 4.4-inch package weighing less than nine pounds.

“Wavestream’s spatial power combining technology has again reset outdoor amplifier performance limits for fly-away and communications-on-the-move applications,” said Wavestream CEO Chris Branscum. “With its versatile modular design, the Matchbox Series enables the realization of previously unachievable systems performances and economies in both mobile and VSAT applications. The Matchbox Series provides the highest linearity per pound per unit volume in a versatile, single interface solution.”

The Ku-band Matchbox BUC incorporates Wavestream’s Deck Power Amplifier modules to provide high efficiency 40-, 25- and 16-Watt RF output levels with less than 280 Watts power draw at 40 Watts output. The Ka-band Matchbox grid amplifier module yields 10-Watt output with less than 110 Watts of power draw. Both the Ku- and Ka-band series operate from 28 VDC or 48 VDC with 110 VAC optional. Production deliveries for the Matchbox Series will commence in the third quarter of 2007.

Branscum said that with the Matchbox Series, Wavestream is continuing to raise the bar in developing compact, modular power amplifiers for Ka- and Ku-band applications. “Further, we expect to bring an additional BUC to market later this year that will achieve Ku RF output levels of 80 watts, giving customers a cutting-edge product while increasing Wavestream’s leadership position in developing the industry’s most compact and powerful solutions for mobile and VSAT applications.”

Wavestream develops and produces high-power solid-state amplifiers that meet the needs of communications and sensing systems. Wavestream currently offers Ka-band and Ku-band SSPAs and BUCs for satellite communications.

### Newtec Unveils New Satellite Equipment for Mobile DVB-H and Terrestrial DVB-T Television Markets

**SINGAPORE** — Newtec has launched a new family of professional equipment for the satellite distribution of television content in mobile and terrestrial networks called Horizon.

Because it requires no deployment of a terrestrial infrastructure to connect the transmission towers to the broadcast network, primary distribution via satellite is recognized as the fastest and most cost-effective way to deploy a mobile or terrestrial service over a large geographical area. Horizon is a family of professional transceivers to be installed in each of the remote terrestrial transmission sites.

The transceivers are very compact and fully integrated units that contain all the elements to receive the signal from the satellite and re-transmit the programs to the terrestrial receivers or hand-held devices. Designed to give broadcasters and network operators a competitive edge in the booming market of mobile and terrestrial TV, Horizon reduces operational costs by implementing the most bandwidth-efficient satellite transmission technologies such as DVB-S2 and stream concentration.

Horizon also offers a unique Local Drop function that allows the efficient distribution of local content in addition to national channels, even in Single Frequency Networks (SFN). Local programming increases the attractiveness of the service while local advertisement can generate additional revenues for the operator.

“This is a unique product that brings the best of the satellite and terrestrial worlds together”, says Dries Coppens, director of product marketing for Horizon. “Not only does this innovative product really optimize the business perspectives of network operators and broadcasters alike, it will also make their life much easier: all Horizon transceivers are self-contained, reliable and manageable remotely. This greatly simplifies the installation, maintenance and operation of the remote sites”.

### Globecomm Introduces AxxSys Orion Satellite Network Management System

**HAUPPAUGE, NY** -- Globecomm, a provider of end-to-end satellite-based communications solutions, has introduced AxxSys Orion, the next generation of its AxxSys satellite



## NEW PRODUCTS

network management system.

A robust, scalable platform, AxxSys Orion monitors and controls all of the terrestrial elements of a satellite communications network. This includes the ability to manage other network elements such as routers, microwave, fiber and wireless subsystems. Deployed over an industry-standard IP network, it is capable of monitoring and controlling from dozens to thousands of devices. This standards-based, distributed architecture delivers high quality of service, state-of-the-art security and high reliability with a low total cost of ownership.

With the introduction of AxxSys Orion, Globecom engineers are taking full advantage of the cost-efficiency and flexibility of IP. AxxSys Orion uses a distributed IP-based architecture to provide a robust, scalable platform. It consists of software running on centralized or distributed servers, which communicate using standards-based protocols with AxxSys Multi-Protocol (AMP) processors serving each piece of equipment in the network.

With the AMP units providing device-specific interface, the network management traffic can travel over any IP network, from LAN to microwave or satellite to telephone. Distributed processing lowers network bandwidth demands and provides the best of both worlds in terms of redundancy: centralized storage of all critical system data and full concurrent backup at the same time.

Globecom has retained and

improved the features that made AxxSys so popular, including an intuitive Web-enabled user interface that simplifies navigation and operation. Customizable, full-color, object-based



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## NEW PRODUCTS

displays identify device status immediately and make problems easy to diagnose. Scripting utilities allow operators to perform complex repetitive operations easily, while a comprehensive GUI builder allows even non-technical personnel to build and deploy graphical screens.

AxxSys Orion also provides a broad range of standard reports plus the ability to generate additional reports using any standard SQL reporting tool. System scripting supports standard VB.NET language, requiring no additional compilation or development tools. In addition, a Device Driver Studio Tool provides a wizard to speed development of new drivers without the burden of writing custom programming code.

“Globecomm has been integrating its AxxSys network management system into fixed and mobile earth stations, uplink centers

and broadcast centers for years,” said Scott Herschander, vice president of Information Technology. “We have seen particularly strong adoption by military and government customers. With AxxSys Orion, we are offering customers the advanced features they want with the simplicity and low operating cost of an IP-based distributed network. It’s another example of Globecomm putting standards to work to save our customer money and improve performance wherever customers need a little bit of satellite to achieve their mission.” **SM**

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## COVER STORY

# Satellite Handheld Price War Leads to More Mainstream Rates

**Claude Rousseau**

Analyst, Satellite Communications  
NSR

Globalstar recent press release in Canada came on the heels of recent troubles for the company. The statement was bold proclaiming “**FREE SATELLITE PHONE**” for those who would stay the course and not flee the rocking boat. With much candor, the executive quote explaining the bold capital letters stated, “It is always challenging to grab the attention of businesses and individual users with marketing campaigns however we felt the introduction of a free phone promotion would help create the buzz to push sales to the next level.”

Indeed, it caught the attention of many, but anything that is **FREE** (in bold capital letters) is sure to grab people’s attention.

The promotion offering free

handhelds though is perhaps not completely true. It is more likely that customers pay for it over a year by signing up to a minimum \$1,800 (CDN) annual plan. In imitating cellular operators’ successful promotions that “give away” a handset at little or no cost in return for a 12 to 24 month contract, the company can adjust the price of the contract to include the handset amortization cost as to give a zero-sum game for equipment purchase. The operators are smart and decided that making money on the equipment is not a must, but losing subscriber minutes is to be avoided at all cost. So it generates attention and attracts subscribers who then talk up the

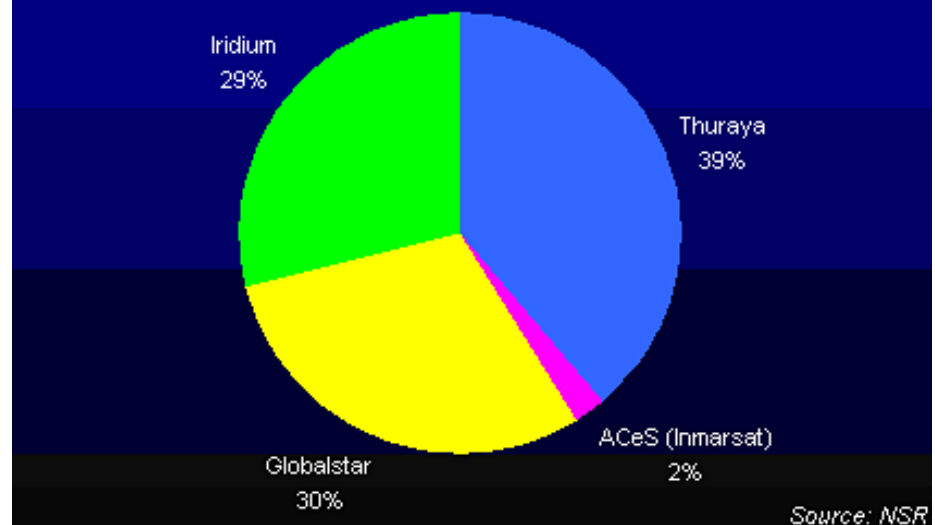
minutes with their “free” handset to bring the cellular operators the higher margins from airtime. However, few users stick to the plans, and most have or will make use of additional services that will be charged at a high price, all for the benefit of the operators.

Is this enough to keep customers? Perhaps it is because the company that “gave away” satellite handsets also instituted an “Unlimited Loyalty” rate plan for unlimited satellite airtime with a declining monthly subscription price in the U.S., again in the hopes of keeping customers from jumping ship.



**The Globalstar satellite constellation** (image courtesy of Globalstar).

**Global MSS Handheld Market Share, by Operator (2006)**





## COVER STORY



to other MSS operators? Perhaps for Globalstar, this is the case in view of their satellites coming at the end of their expected useful life and suffering from antenna problems since late 2006. Their churn rate and average revenues per user have suffered in the first quarter of 2007, and many resellers have gleefully taken orders for Iridium phones from Globalstar users.

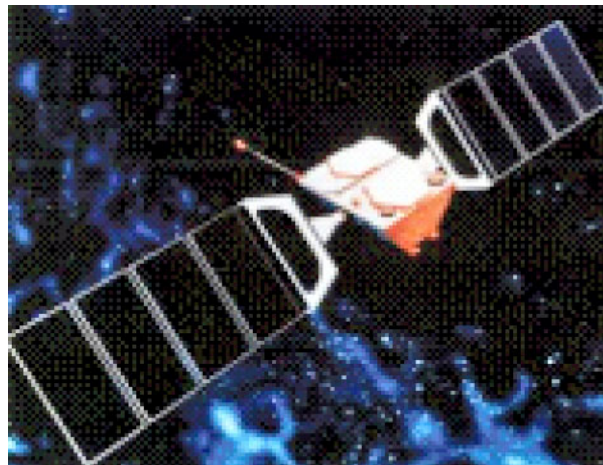
But if we look at how this pricing strategy has influenced other players in the satellite handheld business, it is obvious that they started a movement that the others have thought about for a while. The MSS business has grown at double-digit rates annually over the last few years, and the entrance of new players such as Inmarsat, Terrestar, ICO and MSV in the handheld MSS business points to either ill-advised investments or a desirable high yield market. We'll take the latter and say that operators that have followed suit to Globalstar such as Iridium have finally been pushed to take the step to meet mainstream cellular airtime prices with what Iridium candidly called "street prices." Its new plan announced two weeks after Globalstar's Unlimited Plan dropped per minute calling rates to as low as \$0.15 per minute with unrestricted calls within

North America. It is aggressive pricing that is dead set to compete with mobile operators, not just to respond to MSS counterparts.

The domino effect continued in June when Thuraya released an 81-country cut-rate per-minute offering with "terrestrial-like price for a premium satellite service" or 50% to 70% cheaper compared to their previous list pricing. The call charge is \$0.20 per minute for communications to and from Thuraya phones and \$0.39 per minute to any other destination.

The handheld price "coup" of Globalstar can be seen from their perspective as a short- to mid-term marketing strategy and from the industry's point of view as a wise long-term approach to mobile communications pricing. Given the healthy state of most operators, the adoption of volume market pricing strategies is simply a sign that the market for MSS handhelds is maturing and satellite telephone operators see cellular as their main competition.

The MSS industry has had bumps in the road lately with the demise of Connexion-by-Boeing, Globalstar's satellite problems, and Thuraya's new



handset delays and satellite jamming problems, so one would wonder if the long-term outlook is conducive to such low prices.

It is true that the risk component of the MSS market is still very high and behind the price plans announced are two LEO operators that have come out of bankruptcy almost debt-free with low operational costs today. The risk of course is to see the subscribers continue service once their contracts expire, which would leave the MSS operators with huge upcoming capital investments for their 2<sup>nd</sup> generation satellites to pay with little money in the bank. They are more likely betting that the MSS price war turns into a larger share of the mobile market pie for satellite operators.

**SM**



**Claude Rousseau** is Analyst, Satellite Communications for NSR. He can be reached at [croussaue@nsr.com](mailto:croussaue@nsr.com)

## EXECUTIVE VIEW

# New Mobile Satellite Systems Must Meet Strict Performance Demands

by Jim Parm

For years, the world's largest military agencies, commercial shipping firms and media organizations have depended upon mobile satellite systems (MSS) to gain a tactical advantage and boost productivity.

Military commanders and corporate IT managers have benefited from the ability of MSS to operate in remote areas, beyond the reach of terrestrial and cellular networks, or areas where existing infrastructure is outdated, insufficient or damaged. In major emergency situations, MSS are often the only practical, short-term solutions for getting critical information to and from the scene. Wide adoption of MSS has been driven by the fact that these systems can be set up quickly, often in a few minutes, without broad technical expertise.

Let's take a look at how MSS providers have met the increasing performance demands of military and commercial users – and which new markets have become increasingly dependant on these mobile technologies.

### Improving Military Preparedness

With large force deployments in the Middle East and other regions over the past several years, the importance of MSS has increased tremendously. The

use of sophisticated MSS for voice, data, Internet, and tracking applications has become as prevalent as the use of any other military hardware. The MSS segment – which features services from Inmarsat, Iridium, Globalstar and others – has become the fastest-growing segment of military communications.

As the concept of network-centric operations continues to transform military and security operations, leading MSS manufacturers have introduced a wide range of services to help ensure the success of any mission. These services include: voice communications; narrowband data; broadband data; Internet access; and dedicated network access.

While mission success is always the highest priority, in today's funding environments the cost factor remains a significant consideration. In addition to traditional satellite systems where users pay for the amount



(photo courtesy of Stratos Global)

***BGAN is ideal for broadcasters who need dependable, secure voice and broadband access in locations with an unreliable or non-existent telecommunications infrastructure. BGAN's simultaneous voice and data capabilities enable field reporters to maintain voice contact with their studio for queuing of the video story that follows via IP streaming. BGAN's ability to support IP data and broadcast-quality video streaming is ideal for live video feeds. The service also supports store-and-forward applications for sending images or video files to headquarters.***

of time connected to the network, many new MSS services only charge for the data transmitted – allowing users to



## EXECUTIVE VIEW



(photo courtesy of Stratos Global)

***BGAN enables battlefield commanders to maintain true, mobile-office connectivity wherever they travel. BGAN has been widely adopted by military agencies worldwide for battlefield and ground command-center applications.***

maintain constant network access at greatly reduced costs.

Even in today's data-driven environment, the power and utility of voice communications are still prominent. The latest handheld phones from Iridium and Globalstar are widely used by military personnel of every major country, to make and receive calls virtually anywhere in the world. The new Inmarsat and Iridium handhelds are now smaller, lighter (less than one pound) and more resistant to water, dust and shock – making them ideal for rugged military conditions. These new models also provide narrowband data transmission capabilities (up to 9.6 kbps) via internal modems, which connect to laptops to access applications such as email.

Land mobile systems that provide high-speed and true broadband data connectivity comprise the largest segment of the MSS category. The latest land mobile systems keep field commanders connected at all times, enabling them to access command-and-control (C2) systems and maximize the effectiveness of their forces.

Inmarsat's BGAN (Broadband Global Area Network) system is deployed extensively in Middle Eastern battle theatres and other strategic areas by the United States, Australian and British defense forces. These systems provide

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## EXECUTIVE VIEW

(photo courtesy of Stratos Global)



***BGAN is ideal as a mobile office solution for energy, construction and engineering professionals. For a mobile office, BGAN can be used for e-mail, Internet access, VPN, and broadcast-quality IP streaming.***

small, lightweight (3 kg.), ruggedized terminals for voice, high-speed data (up to 492 kbps) and video communications. BGAN systems feature Mobile Packet Data Service (MPDS) that enables users to pay only for data packets transmitted and received.

BGAN systems provide advanced voice services including STU-III/STE, Brent and FNBDT compatibility for secure calls. They also provide broadcast-quality transmissions for e-mail, file-transfer, Internet access and video teleconferencing. BGAN is also compatible with data-encryption devices supporting the encryption standards native to all major countries.

Many of the same MSS services used by land and sea forces are also available to serve airborne military personnel, to support air traffic control and full ISR (intelligence, surveillance and reconnaissance) integration. The UK's Royal Air Force recently began deployment of Inmarsat's Swift 64 service on its Nimrod fleet to enable higher capacity air-to-ground communications and interoperability between

other nations.

### ***The Appeal of MSS to First Responders***

The first responder community is at a crossroads when it comes to implementation of emergency communications systems. After living through 9-11 and recent hurricanes, local governments are keenly aware that traditional telephone lines are not likely to

be available – and cellular and radio communications are apt to be unreliable – after disasters.

Government task forces have begun to recognize the critical need to incorporate reliable MSS into their emergency response plans – to achieve seamless interoperability among first responders, hospitals, emergency relief workers and local government agencies.

First responders require immediate communications upon arrival on a scene. Voice and high-speed data is critical, to allow for voice contact with command centers and for direct access to Incident Management systems, either via Internet or VPN. BGAN clearly fits the needs of this market, as it offers greater data capability simultaneously with voice in a compact, rapidly deployable unit.

In addition to police, fire and EMS, other examples of agencies evaluating BGAN include emergency managers, public health, border-patrol, centers for disease control, and governors' offices. While these agencies typically operate under fixed budgets, the U.S. Depart-

ment of Homeland Security offers several grant programs to first responders for equipment to enhance their ability to respond effectively to an incident. BGAN meets the criteria established by these grant programs.

### ***BGAN Excels for Satellite Newsgathering***

Broadcasters are second only to military commanders when it comes to utilization of BGAN for high-speed data communications. Since 2006, BGAN has been widely adopted by broadcasters such as the BBC and Fox News in Iraq, Afghanistan and other remote regions in Europe and Asia for on-the-scene connectivity where satellite news vans are unavailable, too cumbersome or too costly.

BGAN's simultaneous voice and data capabilities enable field reporters to maintain voice contact with their studio for queuing of the video story that follows via IP streaming. BGAN's ability to support IP data and broadcast-quality video streaming is ideal for live video feeds. The service also supports store-and-forward applications for sending images or video files to headquarters.

These broadcasters have learned that leading BGAN distributors offer value-added services that help make BGAN usage more productive and affordable. These services provide cost control, firewall management, full traffic information, pre-paid facilities, high security options and easy VPN access.

### ***MSS Increases Maritime Productivity***

The merging of shipping companies is resulting in large organizational structures that require ever-more

## EXECUTIVE VIEW



(photo courtesy of Stratos Global)

**BGAN is ideal as a mobile office solution for energy, construction and engineering professionals. For a mobile office, BGAN can be used for e-mail, Internet access, VPN, and broadcast-quality IP streaming.**

sophisticated management systems. The only way to meet these challenges is with a unified technological solution that seamlessly and cost-effectively integrates all maritime operations on land and at sea.

To meet the demands of the maritime market, major MSS distributors deliver a wide portfolio of satellite services, including as Inmarsat, Iridium, Globalstar and Maritime VSAT. One service enjoying especially strong adoption is the Inmarsat Fleet F77 system. It is the first, full-featured model in a family of new high-bandwidth IP-enabled global satellite systems.

Fleet F77 is ideally suited to larger

vessels which require a complete office at sea, and is designed to provide a single integrated platform to support both dedicated, high-speed ISDN and always-on mobile packet data service (MPDS), as well as voice and Group 3 and 4 fax services.

The promise of increasingly powerful MSS will be available to ship managers later this year with the introduction of Inmarsat's FleetBroadband services. FleetBroadband is expected to provide cost-effective, high-speed data and voice communications – for both primary and backup connectivity – at speeds up to 432 kbps, regardless of the vessel's location.

Communications managers will find that FleetBroadband can be rapidly deployed across an entire fleet and, as a standard IP service, seamlessly integrated with head-office networks. Terminals will operate globally and the user interface is expected to be standard across all hardware.

FleetBroadband will support the latest IP services, as well as traditional circuit-switched

voice and data for legacy applications. Terminal costs are expected to be relatively low and the network will support all the latest security protocols.

All indications are that leading MSS manufacturers will continue to introduce faster, more cost-effective products to meet the increasing performance demands of military and commercial users. To complete the equation, distributors, service providers and LESOs must continue to develop new value-added services to fully customize these systems to meet specific customer requirements. By working together, manufacturers and solution providers can ensure the MSS segment maintains its critical role of increasing safety, productivity and efficiency for key markets. **SM**

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**Jim Parm** is President and CEO of Stratos Global Corp., a provider of advanced mobile and fixed-site remote communications solutions. He can be reached at +1-301-214-8800 or [jim.parm@stratosglobal.com](mailto:jim.parm@stratosglobal.com)

## FEATURE

# One Busy Week in June for Satellite Players

by Chris Forrester

Not for the first time are we reminded of former British prime minister Harold Wilson's phrase, that 'A week in politics is a long time', and a single week in June might well go down as being significantly meaningful for the satellite industry.

First up was the reselling of Intelsat. It isn't, in my view, where Intelsat finally ended up that matters quite so much as the audacious selling off of the merged Intelsat and PanAmSat assets, and that the current owners can still take a small fortune – in truth, quite a large fortune – in cash out of the operation. It is also fascinating to see some of the players involved in the bidding war, not least John Malone (the cable guy) and Charlie Ergen (the satellite guy) get cosy around a table and contemplate a bid for Intelsat.

It will be interesting to see what difference BC Partners makes to the operation, and how well Intelsat manages under a \$16bn debt burden once the deal closes.

We all know about the huge amounts of cash thrown off by satellite operators, with EBITDA profits in the 75%-80% range commonplace in the industry, that is the goal of the new owners. Predictable profits extending well beyond the horizon are always appealing, but my question focuses on the single unstated asset of all satellite operators, not the satellites or their back-log of contracts but the orbital slots themselves. They are also running out, and as HDTV takes root, and

### The Canadian License Awards

Telesat 72.5 deg W  
Telesat 82 deg W  
Telesat 86.5 deg W  
Ciel 91 deg W (Ka)  
Ciel 91 deg W  
Ciel 103 deg W  
Ciel 107.3 deg W  
Ciel 109.2 deg W (Ka)  
Ciel 111.1 deg W  
Telesat 118.7 deg W (Ka)  
Telesat 118.7 deg W  
Ciel 138 deg W

capacity demand increases, one wonders where the new slots will come from.

Which is certainly the view with the Canadian auction results also announced in June. Seven Canadian licences have been awarded to Ciel, an SES Global subsidiary, which won an impressive seven licences to operate North American services. Telesat of Canada won five licences. The end result, according to Canada's industry minister Maxime Bernier, is that 'Canada' will see 10 new satellites launched by 2010. The Minister talked about the extra capacity being used to launch new HDTV services, high-speed internet access and

additional communication services.

Ottawa-based Ciel is already in business with a rented satellite, and will have its first new craft on station later next year. Ciel is a consortium led by Canadian investors, with SES a junior partner in the business. Canada's industry ministry had originally placed 29 licences on offer, but only 12 were taken up. The appeal for all 12 is the activity taking place not in Canada – important though that will be – but in the growth potential elsewhere in North





## FEATURES

America. Telesat, which won five licences, is in the process of merging with Loral Space & Communications.

It is also interesting that both Ciel and Telesat adopted some of the Ka-Band slots on offer, and if capacity in Ku-band does become squeezed there's elbowroom in the new frequency bands.

Of course, there are other European players besides SES Global that are looking closely at American opportunities. Top of this list is Eutelsat, which for many years has had an investment position in Madrid-based Hispasat, largely because of Hispasat's powerful Amazonas satellite slot at 61 deg West and in prime position for capturing 'The Americas' (and with excellent connectivity to Europe and Africa). Amazonas 1 has been a commercial success, but a slow fuel leak will curtail its life on station, and has forced Hispasat to bring forward its replacement. Amazonas 2 was ordered in June. Astrium will design and build Amazonas 2. The new satellite, based on a Eurostar E3000 platform and equipped with 64 transponders (54 Ku-band and 10 C-band), will provide a full range of telecommunications services to both North and South America and will allow Hispasat to respond to the growing market demand in this region, especially in Brazil.

Amazonas-2 will be co-located at 61 deg W. alongside the Astrium-built Amazonas 1 satellite launched in 2004. Amazonas 1 will take early retirement before 2014 (its expected lifespan was to last until 2019). Amazonas-2 is scheduled for launch in 2009.

Despite these problems, Amazonas (and Hispasat) is an attractive option for consolidation by Eutelsat. It could still happen, although probably not in the way Eutelsat first imagined. In June Spain's government gave its unequivocal

approval for construction to telecoms conglomerate Abertis to acquire up to 40% of Hispasat. Unfortunately, the go-ahead comes with strings attached, not least that Hispasat must stay firmly Spanish. This, at first blush, rules out the long-anticipated prospect that Eutelsat could absorb Hispasat, and transfer its ownership to Paris.

This has long been Eutelsat's plan, where it had patiently held onto a significant 27.69% shareholding, with – now terminated – options to acquire a larger stake over time. Part of the problem is that Hispasat carries a military payload serving Spain's armed forces, and governments are usually sensitive about "foreign" ownership of such communications.

The other factor concerns Hispasat's soon-to-be investor Abertis. Abertis is also a major 32% shareholder in Eutelsat, and many had expected Abertis to be the catalyst to bring Hispasat into Eutelsat. Now, it seems, Abertis' longer-term strategy is beginning to emerge. Somehow or other the "military" obligation on Hispasat will be hived off to a wholly Spanish business, and then the merger between Hispasat and Eutelsat can take place.

But given that Spain's government has ruled so decisively that Hispasat must remain in Spanish hands, the only



route forward would be for Eutelsat to be merged into Hispasat, again with Abertis being the catalyst. Quite whether this would mean a relocation away from Paris is – as yet – unclear. But there's certainly no reason for "new" owners to seek that degree of consolidation. Eutelsat could happily stay at its Paris location, but flying a Spanish flag above the front door.

This is an all-too-simple explanation for a complex operation, and subject to a thousand future variants and influences. But it does provide a solution to the current conundrum of Hispasat (and Abertis') wish for consolidation to take place, but under a Spanish regime. There's also a prospect for Hispasat to mount an Initial Public share offering (IPO).

Whatever the eventual position, the investing community still finds Eutelsat attractive. Giant investment house Franklin Resources has quietly been building a stake in Eutelsat. An announcement June 13 said Franklin now held more than 10% of Eutelsat's stock, having purchased a large bundle

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on June 7 taking its total holdings to 21.69m shares, representing 10.02% of the company. Franklin, in a statement, said it was not seeking a seat on Eutelsat's board, nor is it building a stake to take control of the business. However, it said it reserved the right to buy or sell Eutelsat's stock in the future.

Eutelsat itself, as this is written, has yet to update its own web-site as to the precise shareholdings of its other key investors, believed to still be Abertis (with 31.96%) and French state bank CDC (26.15%). If this latest 10.02% stake has come from the free float of shareholders, this would leave about 32% in public hands.

This news emerges at the same time as a major 17-page report from investment bankers Morgan Stanley on Eutelsat, which delivers an upbeat overview of the satellite platform's prospects. The bank specifically alerts investors to Eutelsat's upcoming full-year results, due about July 26, which might prompt a further upgrade. The report takes the view that all satellite operators remain "highly attractive" as we are seeing with the continued interest in Intelsat.

Morgan Stanley presents its usual Bull, Base and Bear cases for Eutelsat's future. Its 'Bull' case anticipates strong continued demand with utilisation at 80% between now and 2014 (or better) and EBITDA up in the 78% average. On this basis Morgan Stanley suggests EUR22.7 as a target price. Base case sees fleet utilisation of 75% average over the same period,

and 77+% EBITDA delivering a target price of EUR19.1. The Bear case, not expected by too many people but always

a possibility, talks about a 68% fill rate, and EBITDA of 76.6% which combine to suggest a share price of just EUR13.9.

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“As the results of Eutelsat, SES and Intelsat all show, the FSS industry remains in rude health, with strong global demand”, say Morgan Stanley. “This was reflected in Eutelsat’s strong Q3 results: [with] underlying revenue growth in the period was 5.4%, or 7.2% excluding the effects of currency. This result was particularly good given a tough comparable period (Q3 2006 +6.4%). As we have noted in previous research, since their IPO in late 2005, Eutelsat management has consistently raised guidance. Most recently, the revenue target for FY 2007 was increased from ‘above EUR800m’ to ‘above EUR815m’, while EBITDA margin guidance for 2007 rose from ‘at least 77%’ to 78%, giving it the highest group margin amongst its FSS peer group.”

The bank added: “We believe there is scope for management to increase further its medium term targets. Current guidance is for 2007-9 revenue CAGR of ‘more than’ 4.5%, driving an EBITDA margin of ‘above’ 76% over that period. The five new satellites joining the fleet in fiscal 2009 will bring an additional 83 transponders of new capacity not

previously included in guidance. We also expect relocation of other satellites, amounting to a further increase in the number of transponders in commercial use.”

These new operating slots are fascinating, and the bank comments on them, saying: “Eutelsat’s announcement of the creation of a new orbital slot over Europe at 4 deg East. Eurobird 10 (previously named Hotbird 3) has been relocated from 10E to service this slot. At 4E it has been renamed Eurobird 4. With 8 transponders in operation, it will serve primarily data and multi-usage clients and Eutelsat has indicated that it has already signed new

contracts at this position. In our forecasts we assume 2 transponders are sold by the end of 2008, 5 in 2009 and 6 in 2010. We assume these are sold at an average price of EUR1.75m per transponder per annum.” The report continued: “The announced 2009 relocation of Hotbird 7A and the ‘possible’ redeployment of Hotbird 6 to another orbital location outside 13E. The relocation of these satellites is made possible with the launch of Hotbirds 9 and 10, which will provide more than sufficient backup capacity at 13E thus allowing another satellite (Hotbird 6) to be Moved from this position. As far as Hotbird 7A is concerned, this will be moved to 10E and used to expand capacity for the provision of video services over Europe. The aforementioned relocation of Eurobird 10 to 4E leaves the 10E position occupied by W1 which has approximately 14 transponders primarily for data use. 7A has 38 transponders and was launched in 2006 with an expected operational life of 18 years. We assume that Hotbird 7A is relocated at the end of 2009 to 10E, with a 20% utilization rate in 2009. Given that 10E will be used for “spill over” demand from 13E, and noting that 13E is basi-

cally full, we assume a steady increase in the utilization rate: 30% in 2010, rising to 40% in 2011, 50% in 2012 and 60% in 2013.”

“Eutelsat will need to encourage customers to transfer from 13E to 10E which will clearly involve a price incentive. However, this will increase capacity available at premium priced 13E for anchor customers. In our forecasts, we assume an average price per transponder of EUR1.8m in 2010 and 2011, rising 2% per annum thereafter. This represents a discount of around. 50% per annum compared to the Hotbird 13E position. As regards Hotbird 6, management has already indicated that it may locate this satellite to an alternative location once the new satellites, Hotbird 9 and 10 are operational. For the combination of these two satellites with Hotbird 8, which we assume remains at the 13E position, should provide about 86 backup transponders at that orbital location.”

Despite this celestial ballet, where satellites are pirouetted to new locations and fresh money-earning propositions, the bankers are still favouring SES over Eutelsat at least as far as the pair’s trading multiples are concerned. But there’s more potential for shareholders in the shape of Merger & Acquisition activity. Morgan Stanley specifically refers to the Abertis/CDC shareholdings in Eutelsat, reminding readers of the Abertis statement made back in December 2006 when it said its purchase of its stake in Eutelsat represented a “strategic movement toward the consolidation of the telecommunications infrastructure business” indicating it is a long term shareholder of the company. The investment strategy at Abertis is focused on increasing stakes sufficiently in order to build a controlling position. As stated by Abertis, a key



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objective for the company is “Obtaining major or controlling stakes or being the sole industrial partner”. At the time of the purchase of the 32% stake, Abertis indicated that it is happy with its current shareholding in Eutelsat, but this does not preclude the company from increasing its stake at a later date. “Abertis has no current plans to increase its holding in the capital of Eutelsat, nor does it intend to make a public takeover bid.”

We note that Abertis has more than sufficient funds to fund either an increase in its stake or a full takeover bid,” adds the bank’s report. As to the current position at Hispasat, the bank says: “Eutelsat has consistently reiterated its interest in Hispasat, in which it has a 27.7% stake, making it the largest strategic shareholder. Approximately 41% of the company is held by Spanish investors who have indicated a desire to exit their shareholdings, so Eutelsat, with pre-emptive rights over these positions, could be in a good position to be a buyer. The problem is that this requires governmental approval, which does not look to be forthcoming, possibly because Hispasat does handle Spanish military traffic (although less than 10% of revenues come from this source), or possibly because, like many other national satellite operators, keeping this business domestically owned is viewed as part of national pride.”

Which brings us full circle, wondering where this current set of changes, new owners, fresh challenges, potential mergers and/or acquisitions might all end up. Either way, the satellite industry proves there’s never a dull moment! **SM**

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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](mailto:chrisforrester@compuserve.com)

## VIEWPOINT

# Mobility and Hybrid Networks: An ISCe 2007 Retrospective

**Bruce R. Elbert**

President

Application Technology Strategy, Inc.

It's been a few short weeks since the conclusion of this year's International Satellite and Communications Exchange (ISCe), an annual conference held June 5 – 7, 2007 in San Diego, CA. According to the organizer, Hannover Fairs USA, attendance was up 14% over last year; a significant increase in the buzz “dB” level was obvious. I thought I would take the opportunity to review aspects of the conference that were particularly timely and interesting. Two sessions represented the confluence of hybrid media and technology that will become more and more important to satellite industry growth in coming years. The first session dealt with hybrid networks that merge interactive satellite communications with terrestrial networks (wired and wireless) to deliver broadband mobility to users. Reflecting ISCe's dual focus on commercial and military satellite communications, the speakers presented technology and applications that offer broadband links to both flavors of mobile users. The second hybrid-related session described how current DBS systems are adding terrestrial broadband Internet connections and employing powerful set-top boxes and web-based program guides to provide more in the way of entertainment (read, fun). By doing so, DBS operators can maintain their growth rates in the face of stiff competition from digital cable. Lastly, the awards banquet gave us a top-down perspective on how Arthur C. Clarke's



**The recently held ISCe Conference and Expo in San Diego featured a distinguished lineup of speakers as this panel composed exclusively of CEOs of major satellite companies.** (photo by Virgil Labrador).

abstract idea from 1945 could become a \$100 billion growth industry.

### **Hybrid Satellite/Terrestrial Broadband Mobility**

The session titled “Hybrid Solutions for Mobility” on Tuesday, June 5, was sponsored by the World Teleport Association and the Global VSAT Forum. This interesting and dynamic session included senior representatives of leading service and equipment

providers that seek a wide range of mobile users. Leading off was Stuart Clark, Director, Strategic Channels & Business Development, Mobile Satellite Ventures (MSV). Stuart acquainted us with the current status of the MSV Ancillary Terrestrial Component (ATC) project that will place two very high powered L-band satellites into orbit for hybrid satellite/terrestrial mobile broadband satellite services. According to Stuart, the system will serve palm-sized handheld devices akin to the

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Blackberry and allow users to roam within urban areas and to the remotest places in the country. Expectations are that MSV and its ATC rivals, ICO and TerreStar, need big telecom industry partners to deploy the terrestrial component. The satellite piece appears to be well in hand with all three companies being under contract with Boeing (for MSV) and Space Systems/Loral (for ICO and TerreStar).

More in the way of background on ATC was provided by noted industry researcher, Christopher Baugh, President of the research firm NSR. His view is that the financial markets (and likely the consumer markets as well) will not sustain multiple ATC entrants. This poses the obvious question: which one will prevail and/or which will merge? At the Mobile Satellite Users Association (MSUA) conference last May, Romeo Reyes of Jeffries and Company stated that ATC is challenged to obtain these powerful partners and produce the kind of user device that Stuart described. These, as we say in aerospace, are probably "doable dos", but none of the entrants have publicly demonstrated progress in either area.

Alan Kittson, Vice President of Government Services and Sales, Spacenet, discussed how his organization is working closely with the US military and other government agencies who require broadband on-the-go. To this end, he described the Network Module (NM) VSAT that can fit within a standard CISCO router. The issue that the NM VSAT resolves relates to providing secure Virtual Private Network (VPN) services with minimum latency over a GEO satellite link. As I understand it, the TCP/IP acceleration needed for good performance is accomplished prior to the creation of the secure VPN tunnel; thus, the necessary TCP headers are not hidden from the acceleration



software, allowing it to function correctly. The VSAT and acceleration are therefore embedded in the router, under the control of the CISCO network operating system. Terrestrial VPNs are broadly popular among enterprises and government agencies, but applications for the NM VSAT so far have been in emergency communications where an incident commander must establish secure broadband communications at a disaster scene.

An innovator in transportable and self-acquiring Ku-band dish antennas, Leslie Klein, President and CEO of C-COM Satellite Systems Inc., told us how military units and first responders have employed his products to good advantage. The range of these auto-point and track antennas has increased markedly because government agencies and commercial users in broadcast as well as oil and gas require broadband services wherever they may need to operate. The higher power of Ku band satellites ties well with mobile dishes like those from C-COM, as users demand more in the way of bandwidth and applications no matter the location.

Location versatility is something central to the business of companies like Arrowhead Global Solutions, a provider of broadband satellite services

to the US military. Michael Shakarji, Senior Vice President & CTO, SATCOM Services at Arrowhead, spoke about the investments in satellite capacity and teleports that his organization has made to support mobile forces. In particular, the US Marine Corps relies on Arrowhead to

deliver broadband communications on demand anywhere on the globe that their abilities are required. Michael's examples included anti-terrorist operations in Southeast Asia and emergency relief in Africa.

To make his point about the mobility of the Inmarsat Broadband Global Area Network (BGAN), George Spohn, Vice President, Sales and Marketing - Thrane & Thrane, Americas, held up one of their very-compact L-band Internet access devices. Capable of over 400 kbps of bi-directional data flow, as well as 64 kbps ISDN service, the Explorer 500 has found a following among news reporters, field technicians and disaster workers.

Stephen Yablonski, Vice President, Globecom Systems Inc.(GSI), addressed how a hybrid satellite – cellular system introduced mobile telephone service to remote towns and villages in the State of Alaska. What was particularly interesting in this GSI solution is the application of a flexible software defined radio (SDR) within the remote base station. Through the satellite link, the base station can be reconfigured for any of the current second generation digital cellular standards (i.e., GSM and CDMA). That same satellite link provides the connection back to a choice of



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mobile switching centers in Alaska or Los Angeles. Mobile telephone calls do not even have to pass over the satellite link if they are local to the particular town or village.

This pre-conference panel gave us a comprehensive picture of hybrid mobile networks that address enterprise and government needs. Through the efforts of the represented companies and others, service providers and users are able to piece together an application and deliver it literally anywhere people may go. Applications that demand data rates above 1 Mbps generally require an aperture around one meter and thus fit best with Ku and Ka bands. MSS providers like Inmarsat and MSV are constrained by L and S-bands in terms of available spectrum, and yet they promise true portability and mobility without a large physical structure. There is still a financial premium in using the types of systems and networks offered by the other members of the panel; however, the operational and financial requirements for these resources are affordable in the enterprise and government sectors. It is a matter of researching and defining the requirements for the satellite network, and contracting with the appropriate service or system provider.

### **Satellite Television and Terrestrial Broadband**

A different perspective on hybrid satellite networks was presented in the opening session on Wednesday, June 6, organized by the Carmel Group and led by its chairman, Jimmy Schaeffler. The keynote speaker, Alan Guggenheim, President and CEO of OpenTV, gave us a preview of what may become the mainstream for home entertainment. OpenTV produces software for the set-top-box using a web-based interface. It is available in 88 million television

homes today and supports DBS and Internet on a common platform. Alan stated that DBS is here to stay as it provides the greatest range of TV channel options, both SD and HD. At the same time, the hybrid approach presents content via a home network and the Internet to multiply those options and give an interactive mechanism. Perhaps in anticipation of this, DISH Network has for several years been supplying set-top-boxes that include Ethernet connections.

The new paradigm that Alan Guggenheim foresees is one where viewers are no longer subscribers but become customers. He predicts the end of subscription services where we pay a monthly fee for a hundred or more channels. There are two problems with the subscription model: 100 channels is no longer enough, thanks to viewing options from the Internet, DVDs and other non-broadcast media; and much of this new content is available for free from the Internet. A larger share of revenue for content will come from advertising, reverting to the old model for over-the-air-broadcasting and building on the new Internet-model made successful by Yahoo and Google. Another twist to the hybrid media future is that customers will obtain much of the same content through a variety of schemes – offering anytime, anyplace viewing and listening. The means for doing this – DVR, VoD, HD, IPTV, EPGs and mobile TV – further confuse the market for content. Younger customers are finding much enjoyment in producing content and making it available to others over the Internet. It's certainly confusing and perhaps of concern to those who make their business out of subscriber revenues and connection charges.

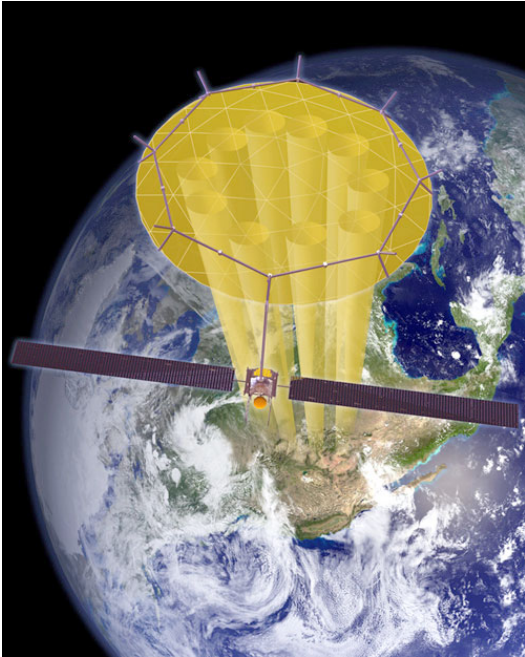
The point made about the value and longevity of satellite TV gives

comfort to a substantial and still-growing segment of the satellite industry. The key to DBS stability is the terrestrial broadband channel now widely available. We can thank cable and telephone companies for making low-cost high speed Internet available to over half of all television homes. While satellite broadband is certainly valuable to remote users, terrestrial broadband is preferred for delay-sensitive applications such as VoIP and on-line computer games. Recently, DIRECTV and DISH announced an agreement with Clearwire, a leading provider of terrestrial WiMAX networks. While WiMAX penetration is limited today, it is possible that it will become another household word and bring broadband Internet penetration numbers close to 80% in a few years. As a ubiquitous hybrid approach with more channels and HD offerings, DBS could accelerate toward an even split of market share with cable.

### **Industry Leadership and the Future**

The awards banquet is always a highlight because it showcases industry leaders and accomplishments. This year, ISCe held the dinner in the Casa del Prado at San Diego's Balboa Park, where the old and the new blend beautifully. We were treated to the story of Echostar's origins by David Drucker, one of its founders. David reminded us that the DISH network had a modest beginning as a startup venture called Antares (the name of a star 10,000 times more powerful than our sun), which was one of a number of DBS applicants before the FCC. It demonstrates once again that in the US, a major business today can begin with nothing more than an idea. David also played a major role in creating the recipient of the ISCe Innovation Award, WildBlue, and is on his way to a third major satellite startup.

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The television scene at home is also one where hybrid satellite networks will play a powerful role. With home networks looking like the corporate networks of the 1990s, the means exist to make home theater into something quite spectacular. The consumers who purchased all of those HD sets last Christmas will want greater entertainment options and more interesting and engaging material to enjoy on them. Advanced set top boxes that integrate content and provide excellent interactivity are part of the next wave of consumer electronics. **SM**

**Mobile Satellite Ventures (MSV)**  
**Next Generation Satellite support**  
**by the Ancillary Terrestrial**  
**Component (ATC) technology on**  
**the ground.** (image courtesy of MSV).

we must adapt to and enhance what is commonplace. Fortunately, our everyday tools and toys employ computers and telecommunications and satellites offer a unique means to get the information to us.

Currently, it takes relatively deep pockets to employ hybrid broadband satellite systems; but, there are several means available that render the cost within our individual budgets. Inmarsat and Thuraya demonstrated that compact devices can be very useful in limited computer network applications and for voice. When ATC finally appears in the markets, it will find application and value as well. The larger dishes used by broadcast media and the military may be costly, but they are not technically different from low priced alternatives offered for the home by WildBlue and the RV and boat by KVH Industries. You may not be able to pinpoint the specific winners in this picture, but you can be pretty confident that the aggregate will blossom like roses in the spring.



**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](http://www.applicationstrategy.com)  
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## EXECUTIVE SPOTLIGHT

### Interview with Intelsat General VP for Business Development Don Brown

At the ISCe 2007 Conference in San Diego last month, Don Brown, Vice President, Business Development and Hosted Payload Programs of Intelsat General spoke to SatMagazine Managing Editor, Virgil Labrador. Brown is responsible for all business development activities of Intelsat General, a wholly-owned subsidiary of Intelsat catering to the government and military markets. Prior to Intelsat General, Brown was the Vice President of Military Systems with PanAmSat's G2 Satellite Solutions. Brown has held senior positions with Space.com, American Mobile Satellite Corp., and in the Satellite Systems Division of Federal Express Corporation. Excerpts of the interview:

*Q. Can you describe briefly Intelsat General's Hosted Payload Program which you are responsible for?*

A. Intelsat has 52 satellites in orbit. We have an ongoing fleet replacement program for these satellites. That means that we have many opportunities to provide capability for the government to provision capacity of a whole variety on-orbit.

*Q. I understand that you already have a hosted payload for the Federal Aviation Administration (FAA) and you are demonstrating the IRIS concept for the US military. How's that working out so far?*

A. These are just two examples of the hosted payload program. There are some notable characteristics that each of those represent. With the FAA hosted payload on Galaxy 15, we were able to put that capability into orbit in an amazingly short time--within 18 months from contract to flight. That program is working very well.

The IRIS or IP Router in Space program is an example of working with the government to rapidly provision on-orbit capability that is a huge technical leap for satellite communications. IRIS enables the US government to demonstrate and test the capabilities of a router in space, fundamentally

**"...Hosted payloads is about a new way of working to be able to provide capability in space in a relatively short period of time..."**

changing space architecture for the warfighter. IRIS provides a nice summary of the promise of hosted payloads. It enables us in two years to put an IP router in orbit and begin to bring the promise of net-centric communications for the warfighter to the commercial satellite industry--which is so important to them. Hosted payloads is about a new way of working to be able



**Don Brown**

to provide capability in space in a relatively short period of time.

*Q. For the FAA, how many transponders does that deal involve, or is it a whole satellite they are using?*

A. That's what makes this program very interesting. It's an L-Band payload. Its

not a payload that we regard in terms of traditional C- and Ku-Band transponders. It is its own discreet payload that's an L-Band system.

*Q. How do the contractual terms work for the hosted payload program--are they on long-term lease, or are they part owners?*



## EXECUTIVE SPOTLIGHT

**A.** There are a variety of ways in which this works. First, one of our themes with our military customers is to get them to understand that a hosted payload dedicated to their mission can be provisioned as a service. You know, there are a lot of people in the government who are accustomed to acquiring and launching capability on their own. We've got a new model for them. This model is one in which we provide the service based on dedicated capability and the government pays for that service as it is consumed. There are any number of models in addition to a lease model that hosted payloads can operate with.

**Q.** *How do you overcome the inability of the US DoD to go into long-term leases or contracts?*

**A.** As you heard in the session yesterday, the government is actually not legally prevented from entering into long-term contracts. It's more a cultural than it is a regulatory barrier. The way you deal with it is first--you have to understand the government's requirement in detail. That is how we can convince our management that there is a long-term opportunity there. Second, you can look at the LEASAT model which we currently fly. The LEASAT has been operated successfully through many generations--the LEASAT 5, the last satellite in the series has been in orbit for 17 years. We have a very good relationship with the Navy which extends the contract into multiple years.

**Q.** *You mentioned Intelsat's 52 satellites. Is the hosted payload program a way for you to fill up unused capacity in these satellites?*

**A.** No. In fact it's very different from that. We certainly will interconnect these hosted payloads to transponders. In fact with IRIS, it will connect to C- and Ku-

Band transponders on the IS-14 satellite. But it's a different way of working that.

**Q.** *Are you offering capacity on all your satellites or are there are just a few that you have dedicated to the hosted payloads program?*

**A.** The entire fleet is an asset that can

be considered for a hosted payload. When I say the entire fleet, I mean our replacement fleet as we go and replace each of the 52 satellites as they reach the end of their service life. Every single orbital location is up for consideration for a hosted payload. That gives Intelsat a unique advantage. Because of the size of our fleet and the extent of our

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**Product:** 9505A

**Situation:** Finally reached advance base camp after trekking for eight days

**Mission:** Send e-mail to family and update blog

**Location:** 27.584 N, 86.552 E



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## EXECUTIVE SPOTLIGHT

coverage, we are able to offer users a choice of anywhere in the globe for placement of their hosted payload.

*Q. How do you address the security concerns of the military being put in a satellite where there are other non-secure commercial services?*

A. First you have to acknowledge that there is such a concern. However, I don't believe that there are a lot in the military that have such a concern,



(Intelsat image)

because they recognize a few facts. First, more than 80 percent of communications in the Atlantic Ocean region are run on commercial communications satellites. Are any of those military users concerned that those same satellites serve

broadcasters? Secondly, is the government concerned that most of the global information grid--over 90 percent--are over leased fiber? Are they concerned that the fiber they are on also carries traffic from Verizon or Quest?

Thirdly, we need to look at what kind of security do you need. Is it the physical security of a payload that is going to go into a commercial satellite? If that's the case, we have a very long history of protecting individual payloads during its transport to a launch site. We also have very good relationships with launch service providers to ensure the security of the payloads. **SM**

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## MARKET INTELLIGENCE



# GITEX, GULFCOMMS & GVF: “InterActive” Analysis in a Capacity Crisis

BY MARTIN JARROLD

CHIEF, INTERNATIONAL PROGRAM DEVELOPMENT  
Global VSAT Forum

Frequently in this column I have made reference to three fundamental defining characteristics of satellite – *Cost Effectiveness; No Limitation of Distance, Geography or Location; and, Rapid, Economic and Reliable Deployment* – which, together with the facts of various vertical market ICT requirements, form much of the foundation to a number of GVF annual conferences/summits/symposia/workshops that are dedicated to the examination of communications imperatives in different regions of, and different markets around, the world.

The recent GVF event in Cairo – the 2<sup>nd</sup> Annual **Oil & Gas Communications: North Africa and the Middle East Conference** – organized in collaboration with UK Event Management Partners (UK-EMP) – was an example of this model for the Middle East & North Africa, but it is far from being the only GVF event dedicated to the communications agenda of the MENA region in 2007.

Over the period 8-12 September, the Dubai World Trade Centre will host the GITEX Technology Week, which encompasses the GITEX and GULFCOMMS exhibitions, as well as some new program features. To augment and supplement this program, GVF will be re-introducing its “branded” regional



conference format, the **Middle East & North Africa Satellite Summit – MENASAT** – which will run in parallel to the GITEX program.

Throughout the planned two-days of Summit proceedings the emphasis will be on promoting discussion and debate, and to facilitate this, the format will comprise a series of clearly themed “**InterActive**” Panels, punctuated with both **Applications Case Studies** and **Industry Case Studies**.

In Cairo, in May, the oil & gas conference featured a series of these “InterActive” Panels, centered on topics

of specific concern to that particular vertical, for example:

- *Applications Evolution and the Dynamics of Oil & Gas Networking Communications.*
- *Bandwidth Supply/Bandwidth Demand: Optimising Price, Quality and Reliability*

### **Variables in Oil & Gas Communications**

- *Oil & Gas Networking Innovation: Satellite and the Hybridisation of the Wide Area Seamless Solution*
- *Communications Regulation*



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### *and Vertical Market Growth Maximisation*

- **“Future Evolution”:** *Advancing the Dynamics of the IP-Based Communications Solution.*
- **Maintaining the Mission Critical Link:** *Oil & Gas Communications When Disaster Strikes*
- **Collaborative Oil & Gas Communications:** *Sharing the Benefits*

In Dubai, in September, **MENASAT** will comprise a similarly structured series of panels, all of which will be designed to contribute to the overall mission objective of the Summit, being:

### **“Building Networks, Forging Connections & Doing Business”**

However, as was often noted during the “InterActive” discussions at the Cairo conference, the Middle East region as a whole is facing something of a problem with the availability of satellite capacity... there just isn’t enough of it!

Therefore, with an “InterActive” agenda that will focus upon such themes as:

- **The International, Regional & National Satellite Operators and their Regional Connectivity Initiatives**
- **Fixed & Mobile Satellite Services: Challenge or Complement to Terrestrial Mobile Networking Connectivity;**
- **Setting-up New Enterprise Satellite Networks in the Gulf States**
- **Developing ICT Access via Satellite & Satellite Hybrids**
- **Hybrid Connectivity & the Emerging Convergence**

### *Environment for Enterprise*

- **Broadband Satellite Systems & Implications for Regional ICT Application Demand & Supply**
- **Growing the Gulf States Communications Market: Advancing the Cross-Border Satellite Solution**
- **Regional Vertical Market Case Studies**

MENASAT will be constantly mindful of two of the questions that were frequently posed in Cairo...

- 1) What are the satellite operators planning to do about the problem?
- 2) When will the region have more satellite transponder capacity?

These questions have, of course, been prompted by the failure/loss, within the last year-or-so, of two spacecraft that would have made a significant addition to the transponder inventory over the region, and naturally, MENASAT will provide an important platform at which the growing number of satellite-dependent and satellite-hybrid-dependent end-users will be able to put these questions directly to the global, regional and national satellite operators.

Is this regional satellite capacity actually needed?

Yes, undoubtedly so. Not only because there remains the fact of the tremendous potential for the Arab States region with regard to providing expanded access to cost-effective satellite

and satellite-hybrid communications services for its continued social and economic advance. And, not only because a number of administrations in the region have introduced liberalizing reforms, with others having demonstrated a strong interest in doing so, thereby creating an enhanced foundation for growth in the communications sector. And, not only because the next steps that the industry is aiming for in the reform process are recognizable moves in the direction of both regulatory reform and market liberalization for satellite and satellite-hybrid services in the delivery of cross-border international communications solutions – for such applications as distance education, telemedicine, disaster recovery, and village communications, as well as traffic for vital commercial enterprises – thereby expanding that foundation and potential for growth even more. No, also because – as clearly evidenced in Cairo – the end-user verticals that are vital to the region are simply craving for this increased capacity.

Without it, not only will the growth of the satellite networking sector in MENA be stifled, so will the economic advance and the social development of a still emergent region. A region that needs to have its communications infrastructures and connectivity to the world substantially expanded. **SM**



**Martin Jarrold** is the Director, International Programs of the Global VSAT Forum. He can be reached at [martin.jarrold@gvf.org](mailto:martin.jarrold@gvf.org) For more information on the GVF go to: [www.gvf.org](http://www.gvf.org)

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