

# Digital Ship

January/  
February 2010

www.thedigitalship.com

## FleetBroadband reaches 5,000 activations

**Inmarsat's flagship FleetBroadband system has now passed 5,000 commercial activations since its launch – a faster adoption rate than any of its predecessor terminals and an impressive indication of how the maritime industry is embracing the move to broadband**

Inmarsat has announced the activation of the 5,000th FleetBroadband terminal, reaching this figure in just over two years since the system was first launched at the end of November 2007.

The 5,000th terminal was activated on Happy Rover, a 1997-built ship owned by Dutch company BigLift Shipping BV, a member of the Spliethoff Group.

Happy Rover is now operating with a Thrane and Thrane Sailor FB 500, supplied by Radio Holland and installed by Stratos, which has managed Spliethoff's communication for over 30 years, from the early days of telex all the way through to FleetBroadband.

Stratos, owned by Inmarsat but still operating as an independent company, has been responsible for more than half of the worldwide FleetBroadband activations to date.

Peter Van de Venne, IT director at Spliethoff, says that he expects to utilise the 432 kbps system to introduce new capabilities like remote IT management, and to improve the information flow between

Mr Van de Venne.

"We have refined our software program so we are now able to routinely check on progress online rather than talking on the phone, which is not only costly but can often lead

which is not only cost effective but operationally more efficient."

Happy Rover is the latest of nine Spliethoff vessels to adopt FleetBroadband, with new vessels from the rest of the 70-strong fleet of multipurpose vessels, ranging in size from 2,500 to 21,000 tonnes, expected to be similarly fitted in future.

### Fastest adoption

The 5,000 FleetBroadband systems now in service represent a mix of FB 500, FB 250 and FB 150 terminals, all with commercially active SIM cards passing operational traffic.

Inmarsat says that this run rate makes FleetBroadband the fastest adopted maritime service in the company's 30-year history.

The latest member of the series, the FB150, commercially launched in May 2009, already has 500 terminals activated – a rate of

*continued on page 2*



*BigLift Shipping's Happy Rover was installed with the 5,000th FleetBroadband terminal*

ship and shore.

The company is also looking at the benefits of slow-scan video to deal with problems like engine malfunction, cargo damage and medical emergencies

"We are particularly pleased with the remote maintenance feature," said

to misinterpretation or misunderstanding."

"This way we check with the Captain and then connect at a time that works for us here in Amsterdam to take over the PC. Effectively, we can 'mouse move' across the oceans, day or night,

## IN THIS ISSUE

### satcoms

Parallel acquired by iDirect – 3

1,000 OpenPorts now active at sea – 6

Satellite communications spending on the increase despite downturn – 8



Buying VSAT – an independent guide for maritime – 10

### software

Common Marine Inspection Documents now available electronically – 15

Maritime e-Learning podcasts get wider distribution – 17

Turning crisis to opportunity at Exmar Shipmanagement – 18



### electronics and navigation



Danish government to use space-based AIS – 22

ENCTrack available on fixed price basis – 26

AIS technology installed during International Space Station spacewalk – 28



RIP for Loran-C – Dr Andy Norris – 30

inmarsat iridium THURAYA Globalstar GSM 3G EDGE WIFI WiMax VSAT E-MAIL • DATA SYNCHRONISATION • INTERNET • INTEGRATION • REMOTE CONTROL • ANALYSIS TOOLS • 24/7 SUPPORT • MAXIMISED USE OF BANDWIDTH The Maritime Communications Experts™

## "It's a matter of trust and security"

– Bill Caldwell, IT manager of Northern Marine Management

With more than 6,000 sea staff and a fleet of 60 ships operating globally, Glasgow-based Northern Marine Management has chosen Dualog as its trusted maritime communication partner.

All Northern Marine-managed ships are being equipped with Dualog® Connection Suite™ to manage and control ship-shore data communication.

"Dualog has been around for a long time and they are renowned for their extensive knowledge of the maritime industry. They listen to us, the customer, providing us with the best solution and support at all times. We know our communications are secure in their hands," says Bill Caldwell.



**dualog** www.dualog.com  
(+47) 77 62 19 00 or sales@dualog.com

Meet us at Digital Ship Cyprus 2010  
3-4 February 2010, St Raphael Hotel & Resort  
Dualog® Connection Suite™ - Take Control

# Digital Ship

Vol 10 No 5

Digital Ship Limited  
213 Marsh Wall  
London E14 9FJ, U.K.  
[www.thedigitalship.com](http://www.thedigitalship.com)

PUBLISHER  
Stuart Fryer

EDITOR

Rob O'Dwyer: Tel: +44 (0)20 7510 4940  
email: [odwyer@thedigitalship.com](mailto:odwyer@thedigitalship.com)

CONFERENCE PRODUCERS

Karl Jeffery: Tel: +44 (0)20 7510 4935  
email: [jeffery@thedigitalship.com](mailto:jeffery@thedigitalship.com)

Cathy Hodge: Tel +44 (0) 20 7510 4945  
email: [cathy@thedigitalship.com](mailto:cathy@thedigitalship.com)

ADVERTISING

Ria Kontogeorgou: Tel: +44 (0)20 7510 4931  
email: [ria@thedigitalship.com](mailto:ria@thedigitalship.com)

PRODUCTION

Vivian Chee: Tel: +44 (0)20 8995 5540  
email: [chee@thedigitalship.com](mailto:chee@thedigitalship.com)

EVENTS

Diana Leahy Engelbrecht  
Tel: +44 (0)118 931 3109  
email: [diana@thedigitalship.com](mailto:diana@thedigitalship.com)

CONSULTANT WRITER

Dr Andy Norris (navigation)  
[apnorris@globalnet.co.uk](mailto:apnorris@globalnet.co.uk)

DIGITAL SHIP SUBSCRIPTIONS

GBP £150 per year for 10 issues  
Subscribe online at  
[www.thedigitalship.com](http://www.thedigitalship.com)  
or contact Stephan Venter on  
[venter@thedigitalship.com](mailto:venter@thedigitalship.com),  
tel +44 (0)20 7510 4937

UPCOMING CONFERENCES

DIGITAL SHIP CYPRUS

St Raphael Hotel & Resort  
February 3-4, 2010

DIGITAL SHIP SCANDINAVIA

Thon Hotel Arena, Lillestrom  
March 17-18, 2010

DIGITAL SHIP HAMBURG

Magnushall  
April 13-14, 2010

Printed by

The Manson Group Ltd  
Reynolds House  
8 Porters' Wood  
Valley Road Industrial Estate  
St Albans  
Hertz AL3 6PZ  
U.K.

No part of this publication may be reproduced or stored in any form by any mechanical, electronic, photocopying, recording or other means without the prior written consent of the publisher. Whilst the information and articles in Digital Ship are published in good faith and every effort is made to check accuracy, readers should verify facts and statements direct with official sources before acting on them as the publisher can accept no responsibility in this respect. Any opinions expressed in this magazine should not be construed as those of the publisher.

continued from page 1

adoption which is twice that of FB500 and FB250 at a similar period after launch.

"The continued strong growth for FleetBroadband shows that it has become the de facto standard for modern maritime communications," said Piers Cunningham, maritime business director, Inmarsat.

"FB150 in particular is beating our expectations, and no doubt those of our competitors too. FleetBroadband is the only service that is cost effective, reliable, has a global reach and is optimised to

deliver genuine broadband connectivity."

In other news, Fleet Management Limited Hong Kong is set to follow the Spliethoff Group into the FleetBroadband family having recently agreed a deal with Dutch company Port-IT to upgrade its onboard satellite communications.

The contract provides for the installation of 50 Inmarsat FleetBroadband terminals on the company's ships, where it will replace existing Inmarsat equipment as the primary communications method.

The deployment of the satcom system is expected to be completed by the end of March 2010.

Many of Fleet Management Limited's vessels are scheduled to call in the Rotterdam area, close to where Port-IT is based, during the period between now and the completion date to facilitate the installation process.

Implementation of AmosConnect and secure networking capabilities are included in the overall deployment package agreed between the parties. DS

## Marlink agrees multiple VSAT deals for 2010

[www.marlink.com](http://www.marlink.com)

Marlink has announced that it has agreed a number of new multi-year VSAT contracts, with Viking Line of Finland, US company Hornbeck Offshore Service, and French-flag cruise line, Companie du Ponant.

Viking Line has entered into a new 5 year satellite communications contract which will continue an existing agreement between the companies, though it does include some enhancements for the current Sealink systems onboard the company's fleet of ferries.

The communications will be upgraded in early 2010 to bring the onboard systems on all ships up to the same standard, while the overall bandwidth will be substantially increased.

Marlink says that the installations will take advantage of the latest coding technology and satellite routers, with all ships to have access to passenger internet FreeLAN, the Marlink 'Internet@Sea' onboard public internet WiFi service with prepaid access control, and prepaid telephone services for crew and passengers.

Company telephone and data communications will be provided through guaranteed bandwidth direct lines between the company headquarters and the ships.

The company LAN data exchange between the Viking Line head office and the ships at sea will also be upgraded by

using link optimising services, compressing the data to improve speed and minimise bandwidth usage.

Companie du Ponant has, like Viking Line, also agreed a five year VSAT agreement with Marlink.

As part of the new contract Marlink will deliver and install its Sealink Ku-band and C-band services onboard three existing vessels, Le Ponant, Le Levant and Le Diamant, as well as two newbuilds planned for 2010, Le Boreal and L'Austral.

Le Ponant, the company's three-mast sailing ship, will be the first to be installed, receiving a Ku-band antenna, while C-band antennas will be installed onboard the remaining four vessels, concluding in May 2010 with the L'Austral.

The VSAT systems will provide each ship with 256 kbps bandwidth and eight simultaneous prepaid and postpaid telephone channels.

"With our cruise ships sailing to popular destinations all over the world, it is imperative that we provide passengers and crew with the facility to stay in touch with friends and family ashore," commented Pierre Thomas, IT manager, Companie du Ponant.

"Marlink has been able to provide us with high quality, customised satellite communications solutions to meet our specific bandwidth and coverage requirements."

The final VSAT contract, with Hornbeck

Offshore Service, is for the supply of communications to two of Hornbeck's Multi Purpose Support Vessels.

The HOS Iron Horse and newbuild HOS Strongline, the third and fourth vessels in the Hornbeck fleet to be served by Marlink, provide deepwater services for subsea construction, installation and other operations mainly in the Gulf of Mexico, but can be mobilised to any region of the world based on customer needs.

Marlink will provide its Sealink VSAT systems on either C- or Ku-band for the 36 month contract.

The system on each vessel will have 16 voice lines, VLANs for administration and crew, together with content filtering and accelerators which compress data to maximise cost efficiency.

HOS Iron Horse will operate with a dual antenna while HOS Strongline will have a single antenna system.

Tore Morten Olsen, CEO of Marlink commented: "This is an important contract for us, not only because it continues to expand the business relationship with this fast growing deepwater customer in the USA, but it also shows how Sealink can be customised to meet the needs of the operator."

"We have worked with Hornbeck for some time to ensure all the latest elements of satellite communications are built into the system and are tailored to meet the specific needs of the client company."



The HOS Iron Horse will operate with dual VSAT antennas

## Parallel acquired by iDirect

www.idirect.net

iDirect has acquired UK-based Parallel Limited, the developer of the SatManage network software package, used in the management of VSAT systems.

Through a cash transaction, iDirect purchased 100 per cent of Parallel's equity shares as well as full ownership of SatManage. Parallel's chief technology officer and entire development team will join iDirect's engineering group.

SatManage is a web-based management system used to help satellite service providers manage IP networks over multiple sites, featuring a wide range of fixed and mobile applications.

The software integrates and automates different elements of a Network Operations Centre and provides monitoring, predictive response capabilities and tools to resolve network issues in real-time.

A database is also included to enable service providers to track and analyse network performance statistics and use this data to communicate with customers through the web-based portal.

Initially, SatManage will be marketed as an extended software solution to manage iDirect networks, with iDirect's current management system, iVantage, continuing to be part of the iDirect platform.

Following the integration of both companies' development teams, iDirect will launch an effort to merge the two products.

"Through this acquisition, iDirect immediately gains a powerful technology that makes our intelligent platform even stronger and equips our partners with the critical tools they need to meet intensifying business demands," said Mary Cotton, iDirect CEO.

"This is an important milestone in advancing our mission to help our partners deliver profitable, differentiated services."

News of this M&A deal has followed closely on the recent release by Parallel of an updated version of the SatManage system.

The new version features more than 1,000 improvements over the previous SatManage version 4, as well as a number of new modules – the biggest set of upgrades to the system since it was launched in 2004.

One of the major enhancements has been the introduction of a what Parallel calls a Turbo Core, which it says has improved performance of the system by 500 per cent.

Existing users of SatManage will be

offered the new version free under Parallel's Software Upgrade and Support subscription scheme for all their existing components.

"When SatManage was originally launched we were servicing customers with small networks with only a few hundred network sites being managed," said Guy Adams, CTO, Parallel.

"Over time, our customer base has

grown as has the size of networks. The SatManage development roadmap is a collaborative process and the functionality and performance requirements have evolved significantly."

"Our software engineers are the very best in the industry and we pride ourselves in being several steps ahead in the technology race."



## On Board and In Touch

3 voice lines

high speed data

lowest cost

easy to install

pole-to-pole global coverage

## Iridium OpenPort®

Enabling communication at sea, everywhere

 **iridium**  
Everywhere

iridiumopenport.com

RELIABLE · CRITICAL · LIFELINES

# Inmarsat acquires IP services provider

www.inmarsat.com

Inmarsat has acquired the business and assets of Segovia, a provider of internet protocol managed services to the United States Army and other US military serv-

ices and government agencies.

Inmarsat will pay an initial consideration of \$110 million, and may pay additional amounts depending on future performance over the next three years. Inmarsat expects to finance the transaction

from current available liquidity.

For the year ended 31 December 2008, Segovia reported total revenue of \$67 million and net income of \$18 million, and had gross assets of \$29 million. The transaction is expected to close in early 2010.

# ZMI to install FB150

www.stratosglobal.com

Zakher Marine International Inc. (ZMI) is to upgrade its vessels to Inmarsat's FleetBroadband 150 broadband satellite service.

Stratos, with channel partner Monarch Telecom, has already activated the FB150 service onboard six ZMI vessels: Zakher Duty; Zakher Pelican; Zakher Eagle; Zakher Supplier; Zakher Atlanta and Zakher Emperor.

ZMI vessels provide anchor handling, supply and towage for the merchant marine and offshore oil and gas industries in the Middle East.

"The data rates provided by FB150 are much faster than the Mini-M service we had been using. This will help us get more value from applications that help ensure superior crew communications, business productivity and cost efficiency," said Wadie Farah, ZMI manager, communications department.

"The FB150 hardware footprint is also smaller than the Mini-M. These factors, combined with competitive pricing, make FB150 an attractive communications upgrade solution."

Along with the FB150 installations, ZMI will also implement Stratos' AmosConnect application to manage e-mail, fax, telex, GSM text, and interoffice communication.

"We are confident that ZMI's upgrade to FB150 and AmosConnect will help the Company meet its productivity goals," commented Stratos CEO, Jim Parm.

In other news, Stratos has also launched a new version of its Stratos Dashboard application, including improved cost-control features.

The new Dashboard has a suspend option known as 'Suspend Data', which can be activated manually or as part of the application's credit control and High Volume Usage Metering (HVUM) features.

Users have the option to suspend only the data portion of their service - or resume all services other than data - at any time during a service period. Full access to real-time traffic overviews, billing information and firewall settings is also included.



**Reliable Satellite Communication  
even during harsh  
conditions and heavy seas**

Unpredicted dynamic weather conditions calls for a specific kind of VSAT that is robust and above all reliable for those requiring constant always on communication, without loss of signal.

C2SAT develops, manufactures and supplies innovative stabilised maritime VSAT antenna systems that provide vessels in motion with on-line two-way satellite broadband communication. By adding the forth axis the C2SAT VSAT system solves high elevation problems and enables accuracy and high speed even during dynamic conditions.

**C2SAT is distributing its products via established solution providers and system integrators. Please do not hesitate to contact one of the distributors presented on [www.C2SAT.com/Distributors](http://www.C2SAT.com/Distributors) for a quotation.**

Visit us at Digital Ship in Cyprus, February 3-4.



**C2SAT**

Reliable Satellite Communication

4-AXES ENABLES HIGH SPEED AND ACCURACY

C2SAT, DALVÄGEN 16, SE-169 56 SOLNA, SWEDEN, +46 (0)8 748 01 40, info@C2SAT.se www.C2SAT.com

# FCC approval for KVH

www.kvh.com

The US Federal Communications Commission (FCC) has granted permanent 'Earth Station onboard - Vessel' (ESV) licence authority for KVH's mini-VSAT Broadband satellite communications service.

Prior to receiving this permanent licence, the KVH mini-VSAT Broadband service had operated in US waters under an FCC Special Temporary Authority (STA) since September 2007.

This new authority officially approves the spread spectrum mini-VSAT service and 24-inch TracPhone V7 antenna as meeting the FCC's latest regulations for

broadband maritime services.

The KVH network is based on ViaSat's ArcLight Code Re-use Multiple Access (CRMA) spread spectrum technology, which the company says reduces contention issues, transmission delays, and shared transmission bandwidth compared with the Time Division Multiple Access (TDMA) technology often used in VSAT networks.

"This is a major achievement for the mini-VSAT Broadband service, which brings the economic and operational benefits of VSAT service to large new markets of commercial and leisure vessels," said Martin Kits van Heyningen, KVH CEO.

"While the FCC jurisdiction applies only to US flagged vessels and operations in US territory, the FCC's approval serves as a major endorsement of the viability and reliability of our global spread spectrum network for maritime operators worldwide."

Approximately 500 mini-VSAT Broadband systems have been sold, to customers including the US Coast Guard, Clipper Marine Services, M.H. Simonsen, and Mowinkel Ship Management.

The granting of this approval follows closely on the back of new agreements KVH has reached to add T11N African satellite coverage to its mini-VSAT service.

KVH has entered into a multi-year agreement to utilise the African coverage of Telesat's Telstar 11N satellite at 37.5 degrees West.

The deal for Telstar 11N transponder space is the latest step in KVH's joint effort with ViaSat to offer broadband for ships, and other mobile markets.

The Ku-band capacity of the satellite over Africa will expand coverage of KVH's mini-VSAT Broadband service.

"The West African region, with its offshore oil and gas fields, has long been an important part of KVH's plans for expanding our mini-VSAT Broadband network," said Brent C Bruun, KVH vice president of sales and business development.

"However, KVH could not launch a service that met our quality standards until Telstar 11N became available. Now with Telstar 11N's African beam, KVH has live coverage, or is under contract to provide such coverage, to virtually every major maritime region on the globe."



KVH current (purple) and future VSAT coverage – now supplemented by the T11N satellite

**Furuno** has established the Furuno Broadband Service Centre (FBS), for the development, expansion and maintenance of Furuno's maritime satellite communications, including **Inmarsat** and VSAT systems. The FBS will be located at the Furuno Denmark offices in Copenhagen.

**SeaMobile Europe** has been awarded Gold Partner status by **Inmarsat**, as part of Inmarsat's accreditation program for service providers. SeaMobile Europe, previously Geolink, has been a service provider for Inmarsat since 1991.

**Xtra-Link** has been appointed as a SAILOR Select Distributor for **Thrane & Thrane**, having been a master dis-

tributor for Thrane & Thrane since 2005. Xtra-Link provides FleetBroadband and VHF / UHF radio among its communications offerings.

**World-Link Communications**, an **Inmarsat** service provider (SP), has achieved Gold Service Provider status in the mobile satellite operator's new accreditation scheme.

- [www.seamobile.com](http://www.seamobile.com)
- [www.inmarsat.com](http://www.inmarsat.com)
- [www.furuno.co.jp](http://www.furuno.co.jp)
- [www.xtra-link.com](http://www.xtra-link.com)
- [www.thrane.com](http://www.thrane.com)
- [www.wlnet.com](http://www.wlnet.com)



**Sealink™**  
by Marlink

**WaveCall™**  
by Marlink

**inmarsat**

**IRIDIUM**

**THURAYA**

Communications  
you can rely on



**Welcome to Marlink**  
*The world's preferred satellite communications provider.*

Marlink provides VSAT and MSS solutions for any size or type of vessel or maritime operation.

Backed by the industry's most trusted support network, Marlink provides global coverage with always-on or pay-as-you-use systems. We offer solutions that provide our customers with world class communications within their budget.





[www.marlink.com](http://www.marlink.com)

**MARLINK**

For full information contact Marlink or visit [www.marlink.com](http://www.marlink.com)

Tel (24/7) +32 70 233 220 · Fax +32 2 332 33 27 · E-mail [information@marlink.com](mailto:information@marlink.com)

OSLO · LONDON · HAMBURG · BRUSSELS · ATHENS · DUBAI · SINGAPORE · TOKYO · WASHINGTON DC · HOUSTON

## 1,000 OpenPorts now at sea

www.iridium.com

Iridium Communications has announced the activation of the 1,000th Iridium OpenPort marine satellite terminal, aboard the Euronav tanker MV Fraternity.

The system was installed and commissioned by AND Group, and the vessel will use AND's IPSignature communication software for the management of voice calls and data.

Fraternity is a new double-hull Belgium-flagged 159,000 dwt tanker delivered to Euronav from the Samsung Heavy Industries shipyard in South Korea. It is the thirteenth Euronav vessel to be fitted with Iridium OpenPort, and the company is currently installing the Iridium satcom terminals on 20 more ships.

"We are outfitting our tanker fleet with Iridium OpenPort to provide a cost-effective higher-bandwidth solution for our ship-to-shore communications," said Victor Kaidatzis, IT manager, Euronav.

"We chose Iridium OpenPort because of its flexible, multi-line capabilities for voice and data, and its low capital acquisition and monthly usage costs, when compared to other maritime satellite systems. We are also impressed with AND's powerful IPSignature calling software, which helps us to manage our voice, e-mail and data traffic

and communication costs more efficiently."

Euronav is dedicating two of the three voice channels to crew calling, with the third phone line on the bridge for ship's business, according to Ian Robinson, CEO of AND Group.

The crew calling phones are located in telephone booths, permitting two off-duty crew members to simultaneously talk with their families or friends at home, without queuing for a single public phone.

Greg Ewert, executive vice president, global distribution channels, Iridium,

expressed his satisfaction at the company having reached 1,000 commercial subscriptions to the OpenPort service in little over a year since the first terminals were shipped in October 2008.

"Since we completed sea trials of beta units and commenced full-scale delivery of production units in the first quarter, the product has received a positive response from early customers, many of whom have committed to install Iridium OpenPort on additional ships across the fleet," he said.



The tanker MV Fraternity was installed with the 1,000th active OpenPort terminal

## Gulf Offshore in 3-year VSAT deal

www.caprock.com

CapRock Communications has announced a three-year contract with Gulf Offshore (a wholly owned subsidiary of GulfMark Offshore) to deploy its broadband maritime service, SeaAccess Communications, onboard Gulf's fleet operating in the North Sea and along the coast of Africa.

GulfMark will use the VSAT service to extend its corporate IT network and applications to its vessels and provide onboard crew welfare services.

A combination of Ku- and C-band services will be deployed based on whether the vessel will be operating in the same region or traversing between different regions.

Under the terms of the agreement, CapRock will provide Gulf Offshore's Platform Supply Vessels (PSVs) and general support vessels with a managed turnkey service enabling VoIP, internet access, e-mail service and corporate networking capabilities for the real-time exchange of reports and monitoring of data.

Crews will be provided with internet access and crew-calling options with what CapRock says are "competitive" phone tariffs.

"As we continue to grow our fleet and enter into new energy-producing regions, we need a communication service provider that can scale with our operations and provide support wherever we may go," said Gulf Offshore general manager Jim Bradford.

"CapRock's SeaAccess service grows with our vessels' increasing bandwidth demands and supports our expanding fleet. Regardless of where our vessels are located, CapRock can provide local installation, connectivity and support."

## Orange launches maritime VSAT service

www.orange-business.com

Orange Business Services has launched a new Maritime Satellite Service, incorporating technology from C2SAT, iDirect and Parallel into a VSAT product specially designed for the shipping market.

The new offering integrates satellite and terrestrial services so that any site on land or sea can be connected directly to a secure IP VPN, and is designed to work in

a converged IP environment.

Five classes of service will be available, which include guaranteed performance levels for voice and real-time video.

C2SAT will provide hardware systems for the service, supplying its 4-axis maritime VSAT antenna which it says reduces instances of dead angles that typically cause high-elevation problems with 3-axis antennas.

Orange has also upgraded its satellite

solution to include DVB-S2 (Digital Video Broadcasting - Satellite - Second Generation) technology provided by iDirect's new Evolution platform, which aims to use the available bandwidth as efficiently as possible.

The new maritime VSAT product can be controlled using 'My Service Space', a portal based on SatManage software from Parallel used for network management and direct performance monitoring of the satellite links.

## Satellite operators association launched

www.inmarsat.com

www.intelsat.com

www.ses.com

Satellite operators Inmarsat, Intelsat and SES have founded a new non-profit company, the Space Data Association (SDA), dedicated to sharing critical operational data in support of satellite operations, and preserving the space environment.

Established in the Isle of Man, the SDA will have Stewart Sanders of SES, Tobias Nassif of Intelsat and Ruy Pinto of Inmarsat as directors.

ManSat, another Isle of Man company, will provide administrative services for the association, which will be open to all satellite operators and other participants.

The SDA will establish a Satellite Data Centre to provide a means for participants to share key operations data, with the aim of enhancing the management of satellite conjunction analysis and mitigation of RF interference.

It is anticipated that this electronic Data Centre will become operational in 2010.

"Inmarsat is committed to support this important initiative along with Intelsat and SES," said Inmarsat chairman and CEO, Andrew Sukawaty.

"The establishment of the Space Data Association is a significant milestone that will contribute to an improvement overall of our day to day satellite operations and I expect that many other satellite operators will soon join the SDA."

Intelsat CEO Dave McGlade also commented: "With the creation of the Space Data Association, global satellite operators have signalled their intention to play a leadership role in increasing the safety of space operations and preserving the space environment for future generations."

"This organisation will create an important forum for sharing critical information among the member operators and between those operators and interested governments."

## FleetBroadband for the USCG

www.stratosglobal.com

The US Coast Guard (USCG) is to deploy Inmarsat's FleetBroadband mobile broadband satellite service on up to 50 USCG vessels.

Installations will be performed by Stratos' Government Services (SGSI) division, a supplier to the US Department of Defense.

Under the agreement, FleetBroadband will be deployed on USCG High Endurance Cutters and Medium Endurance Cutters, enabling them to interconnect with the USCG data network to exchange operational ship traffic, including SIPRNET (Secret Internet Protocol Router Network) and NIPRNET (Nonsecure Internet Protocol Router Network) data.

The installations form part of USCG's efforts to upgrade technology onboard its ships as they migrate from Inmarsat-B lease services to an IP-based architecture. The upgrade is designed to increase the vessels' communications throughput

capabilities to operate globally in all weather conditions.

Stratos says that it has already successfully deployed similar prototype FleetBroadband services on selected USCG vessels.

The agreement includes installation support, training, Multi-Protocol Label Switching interconnectivity, monitoring, engineering, and support. USCG also will use Stratos control and monitoring services to manage the FleetBroadband usage.

SGSI president Bob Roe said, "This contract award represents a critical component of USCG's technology upgrade and transition to an IP-based communications architecture."

"Stratos has been providing highly reliable Inmarsat satellite communications solutions to USCG for more than a decade. We consider it an honour and a privilege to have been entrusted with this responsibility, and we are grateful for the opportunity to expand our relationship with USCG."

# OCEANPHONE®

**THE AFFORDABLE, FLEXIBLE AND CONVENIENT  
CREW CALLING SOLUTION.**

AVAILABLE ON MTN'S INDUSTRY LEADING GLOBAL VSAT SATELLITE NETWORK.



OceanPhone® \$10

**CALLING SERVICES**

**KEEP CREW CONNECTED TO FRIENDS & FAMILY.  
HAPPIER CREW. BETTER PRODUCTIVITY.**

OceanPhone® calling cards allow crew to make low-cost calls anywhere in the world and cards are easily reloadable. Competitive calling rates 24 hours a day, 7 days a week.

**FOR MORE INFORMATION ABOUT MTN'S OCEANPHONE® CALLING CARDS OR OTHER  
PRODUCTS AND SERVICES WE OFFER, CALL +1-954-538-4000;  
EMAIL: SALES@MTNSAT.COM; OR VISIT WWW.MTNSAT.COM.**

**ATHENS | HAMBURG | HOUSTON | LONDON | MIRAMAR | PARIS | SEATTLE | SINGAPORE**

# Satcom spending up despite downturn

The shipping industry has felt the full force of the economic downturn – however, though revenues are falling across the board, spending on satellite communications in the industry is on the rise, writes Reinhold Lueppen, Vizada

It is hard to think of a global industry that has escaped the economic turmoil created by the global financial crisis of the last 18 months, and the maritime industry is no exception.

Yet while traffic levels at sea have remained relatively stable, the number of ships in operation has fallen by 15 per cent as it is cheaper for shipping owners to leave vessels in dock than run them at a loss.

These conditions have inevitably put pressure on the maritime industry to streamline its operations, with many delaying new builds, scaling back big IT projects, or cutting them completely.

Despite this, there is one area of growth which bucks the negative economic trend. Even while operational activity has fallen, the demand for satellite communications (satcoms) services has steadily increased in the corresponding period. So what is driving that demand?

Shipping organisations are increasingly recognising the strategic importance of satcoms to support two key challenges: firstly, to improve operational efficiencies; and, secondly, to improve recruitment and retention of skilled crew by offering the best possible welfare when they are at sea.

Savvy shipping owners recognise that while communications comprises a very small proportion of their overall costs – on-board and ship-to-shore communications often account for less than one per cent of daily running spend – it can significantly improve operational efficiency.

Satcoms providers have responded to these challenges by developing a range of voice and data solutions that are flexible enough to meet every existing and emerging communication requirement.

Just two years ago the key communications needs were voice and email connec-

tivity, with crew using phone and email to communicate to shore.

Today, the drive towards remote monitoring and sophisticated automated connectivity linked to terrestrial systems has led to the design and deployment of complete on-board Internet Protocol (IP) infrastructures.

A ship used to be an 'IT island'. Now it is connected to a vast array of systems and data sources: corporate networks; the internet; third-party applications such as mapping chart updates, live weather services, cargo management and customs gateway systems; and purchasing systems for spare parts – all of which are automated and connected 24/7.

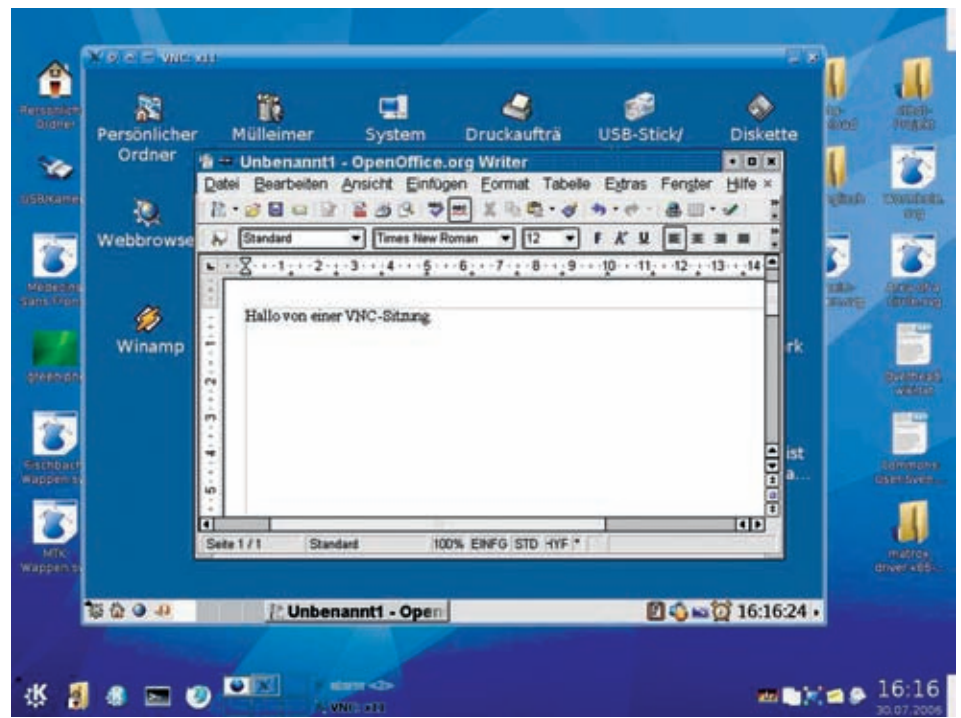
'Always-on', remote maintenance and reliability are all crucial components of a first-class maritime communications system.

However, these are complex and challenging systems to run; the most astute shipping owners realise that can be advantageous to put them in the hands of satcoms experts, leaving them to concentrate on what they are best at – running their fleets.

It takes experience to integrate anti-virus, firewalls, and broadband routers; building sophisticated IP-based systems, and ensuring they run in a way which supports the crew that rely on them every day, requires not just an expertise in the technology but a strong understanding of the operational processes that satcoms will support.

## Communications outsourcing

I will turn first to the operational efficiency challenge and how outsourcing communications can help save money and improve the running of a single ship or an entire fleet.



Remote access to onboard IT systems can improve operational efficiency – and lower costs

The ability to squeeze additional cost savings by streamlining day-to-day processes is attractive to shipping owners whatever the state of the economy. It becomes especially important when high bunker costs are placing demands on budgets and resources, or when maintaining a competitive advantage in the market, or simply ensuring business survival, are at stake.

Satcoms can play a key role in improving a shipping fleet's operational efficiency by supporting the remote outsourcing of functions that are too costly to undertake on board, such as dedicated HR support.

Satcoms can also streamline core operational tools on board vessels. Improving on-board routing systems can optimise fuel consumption and these routing systems require data communications to underpin them: access to live weather data; the latest mapping systems; and optimising cargo deliveries.

It is now possible to automate the remote management of on-board planned maintenance systems which would have previously required constant attention by crew members.

Think about the cost challenge posed in replacing core engine parts, for example. There is an optimum time at which to update or maintain those parts, which can be monitored remotely, flagging up essential maintenance or repairs so that engineers replace parts only when absolutely necessary – not too early, not too late.

In addition, the capability exists to monitor the condition of a ship's hull, or the performance of its engine, so that troubleshooting – if required – can be tackled at the earliest possible point. All of this can be done via remote monitoring, supported by satcoms.

Another example of the kind of opera-

tional efficiency satcoms can deliver is by providing automated access to operational critical information.

For example, ship managers can download electronic charts to inform route planning, or rely on regular updates to Electronic Chart Display and Information Systems (ECDIS) on board ship (vessels are mandated to run two independent ECDIS systems to counter the failure of one) to provide continuous position and navigational safety information.

Electronic routing systems – delivered through satcoms – can inform the best possible route to follow, taking into account information on the location of submerged vessels, for example, thereby giving ships the essential information needed to avoid incidents at sea.

## Crew Welfare

Let me now address the second key challenge for shipping owners: crew welfare. Even during an economic downturn, this presents a considerable challenge for the maritime sector as people are reluctant to stay at sea for months in a row away from their families and friends.

Even with shipping down by 15 per cent at present it can still be challenging to recruit staff on board – especially at a skilled or management level – so shipping owners recognise the need to provide reassurance through access to communications to give crew a lifeline to home, wherever they are in the world.

There is a genuine willingness to promote this by shipping companies at present. Traditionally, the focus has been on ship-to-shore voice calling to help crew stay in touch but, while this still represents the main means of contact, there is a growing demand for staff to access the same services they are accustomed to back at



Onboard maritime GSM services are proving popular with crews



home: email; web browsing; and SMS – for example, at present Vizada handles 150,000 SMS messages each month.

Increased demand for broadband bandwidth on land is also reflected at sea; staff want access to the same video-streaming sites and audio-visual content they would access at home.

Managing the costs of staying in touch is now much easier than ever before. It is particularly important as staff move away from relying solely on voice connections to stay in touch, supplementing this with the convenient forms of communications they are accustomed to on land.

Increased demand on data rates has a cost implication for both individuals and shipping companies; some ships with access to mobile satellite systems on board restrict access to certain data-hungry sites, but the range of ways to pay for and access communications is developing rapidly.

For example, ships can offer pre-paid data cards with fixed amounts of credit per megabyte that can be bought by crew for private communications use – which takes the responsibility for costs out of the ship manager's hands, and new web compression tools which manage the transfer of data more cost-effectively have also increased value for money.

It is also possible for crew to use their own mobile phones at sea via on-board GSM picocells which help them to avoid the high roaming costs that terrestrial mobile network operators can charge for use away from home.

## New developments

As shipping owners become more aware of the benefits of satellite communications in driving operational efficiency gains and crew recruitment and retention, satellite communications will continue to respond to new challenges and developments in the market, and innovations will continue to improve operational efficiencies.

Compared to just a few years ago, when ships set sail from harbour as an isolated, moving 'island', today's communications capabilities mean that vessels are now simply the physical delivery elements of a supply and trade network built on the global exchange of electronic information.

A ship's systems are increasingly connected and

integrated with land systems via 'always-on' connectivity.

Looking ahead to the next 12 months, we expect shipping companies to remain cautious about their financial outlays, but caution needn't necessarily mean trimming costs – especially if there are operational gains to be had.

There will be a continued trend

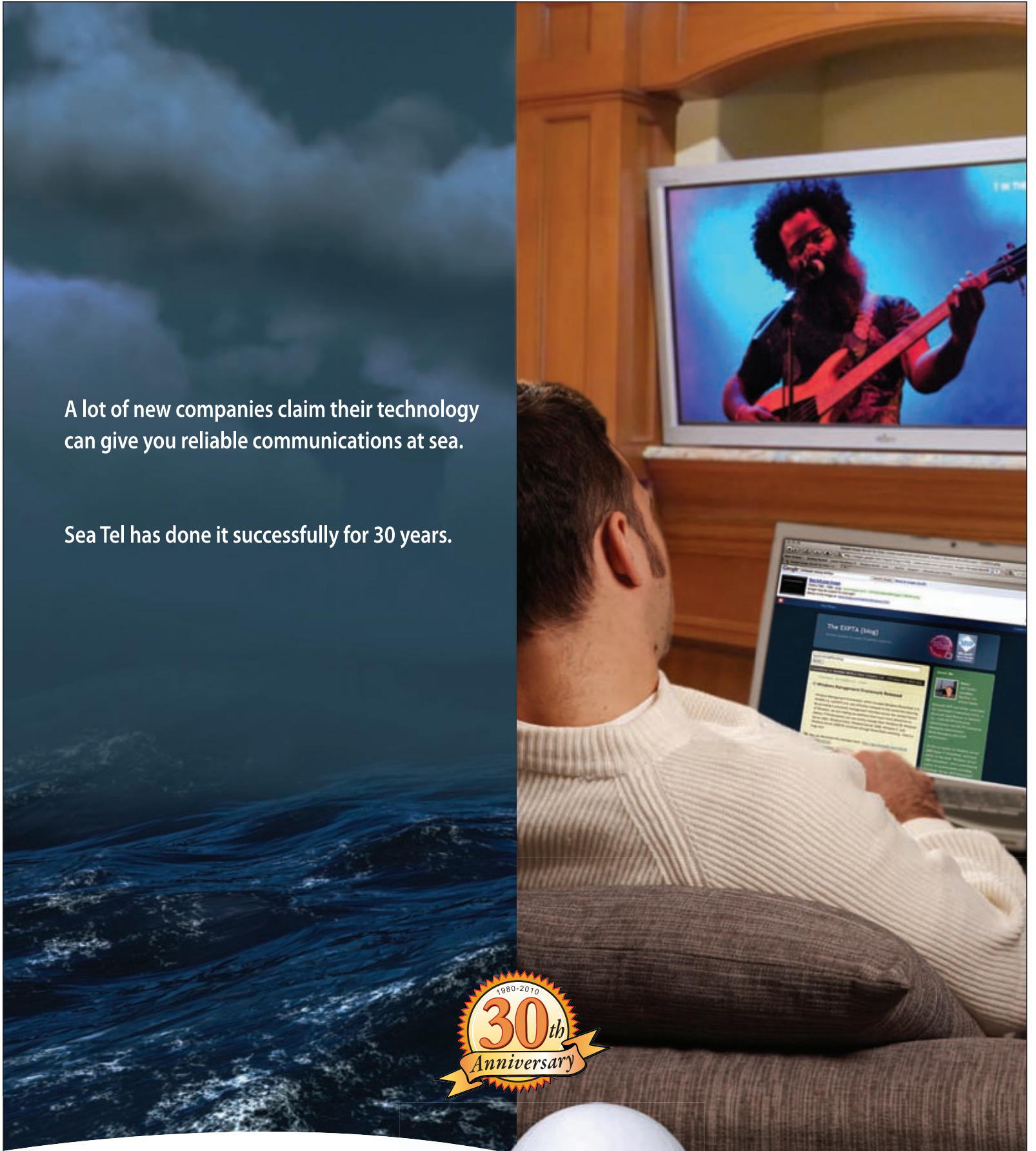
towards broadband systems which will be flexible enough for use by both low-end and high-end users, and 'always-on' online communications will grow in use, in turn driving higher data consumption.

While innovation will be driven by new technological advances made by satcoms providers, the vessels themselves form the best possible R&D testing ground.

Innovation will continue to evolve from the ever-evolving needs of the market as much as the technology supporting it. **DS**

### About the author

Reinhold Lueppen is a director, Vizada Solutions, for satellite communications provider Vizada



A lot of new companies claim their technology can give you reliable communications at sea.

Sea Tel has done it successfully for 30 years.



## What's Under Your Dome?

Sea Tel has more choices for every marine application. Broadband, Telecommunications, and HDTV antennas with a patented 3-axis satellite tracking system and built-in GPS. Choose from 22 different antennas ranging from 14" to 144" for commercial vessels, megayachts, and pleasure boats of all sizes.



# Sea Tel

**COBHAM**

Cobham SATCOM Marine Antennas  
 USA: (01) 925-798-7979  
 Europe: 44 (0) 2380 671155  
[www.cobham.com/seatel](http://www.cobham.com/seatel)

Enabling the Maritime Community Through Connectivity for 30 Years!

# Buying VSAT

## – an independent guide for maritime

**Maritime companies that are interested in upgrading their satellite communications to VSAT will be faced with a wide range of different choices and options as to the potential system they could deploy. Knowing the ins and outs of the technology is critical in ensuring you make the best decision, writes Alan Gottlieb, Gottlieb International Group**

If you are a ship owner or IT manager, choosing a VSAT service is a critical decision. Since vendors typically require commitments of 2-3 years, selecting the wrong vendor can be a career-jarring mistake resulting in significant losses and inadequate service.

If you are unfamiliar with the technicalities of satellite broadband communication, purchasing a maritime service can be as dangerous as sailing into unknown waters.

In choosing a service, potential buyers face a seemingly unfathomable series of issues including choice of L-, C- or Ku-band, coverage areas required, antenna sizes, types of available satellite hub platforms, modulation schemes, how much bandwidth will be required to run their applications, constant IP Addresses, VPNs, Committed Information Rates, IP switching platforms, and blockages.

If that's not enough, in addition to all of this the buyer needs to look at software platforms for bandwidth management, security, how to limit internet sessions and web site access, pricing, Contention Ratios, backup systems and remote maintenance and Fair Access Policies, etc, etc.

As an independent consultant in the field of maritime VSAT, Gottlieb International Group is pleased to present impartial advice and to expose some of the fallacies encountered in the VSAT selection process. Here, in excerpts from our new E-Book, 'An Independent Guide to Buying Maritime VSAT', we target some of the most frequent areas of misunderstanding.

### The Value of Trials

Trials have become a popular way to test new VSAT systems. Eager to win large fleet contracts, many vendors are offering free trials in the hope of generating sales. Unfortunately, such trials are relatively useless in evaluating the long-term performance of a service.

Sophisticated buyers know it is easy for a vendor to allocate additional bandwidth to a trial vessel, thereby creating the impression of a favourable trial outcome.

Given the possibility of winning a three-year, 50 to 100-ship contract worth \$5 to \$10 million, the incentive for such 'bait and switch' tactics does exist, especially in a highly competitive market.

Even if the trial vessel is not allocated preferential network access, service providers in the early stages of deployment are likely to have few subscribers, resulting in excellent bandwidth availability and a stunningly deceptive performance.

Once the vendor's network is more fully populated, however, the customer who

was satisfied with the trial may experience a significant decline in performance due to excessive Over-Subscription, a condition that occurs when more users join the network that it can adequately support.

Consequently, buyers should also be wary of testimonials from early stage subscribers.

A popular but deceptive sales technique is to recruit such subscribers to author complimentary articles or speak at conferences. Always ask about the duration of their experience on the Network and what applications they are running.

However, while trials are of questionable value and testimonials can be deceiving, there are ways to guarantee performance.

### Contention Ratios and Committed Information Rate (CIR)

Contention Ratio and Committed Information Rate (CIR) are the criteria by which a VSAT network can be measured.

Contention Ratio indicates the number of subscribers who typically share or contend for a fixed amount of bandwidth.

CIR or Committed Information Rate is the amount of bandwidth always available and is guaranteed under contract (Service Level Agreement). Time sensitive services such as voice, Video Conferencing, or remote PC maintenance typically require minimum bandwidth levels.

Because dedicated bandwidth is expensive, most of the services offered to the maritime VSAT market are to some degree contended services. This means any amount of bandwidth that is not guaranteed will be shared and subject to availability.

In theory, this is a sensible arrangement since it assumes that all of the subscribers will not use bandwidth at the same time, and it keeps costs down. However, if too many subscribers are sold services, network quality may suffer.

Degraded service is typically experienced in commercial services when the Contention Ratio or the number of subscribers sharing a fixed bandwidth resource exceeds 10:1.

Since the number of vessels contending for the use of a single beam varies considerably as a vendor's subscribers transverse the globe moving from beam to beam, the only way to assure that you will always have an acceptable level of service is to contract for a Committed Information Rate (CIR).

Determining how much CIR you need is a tricky affair. Since services with CIR are considerably more expensive as the



*Careful consideration of all the facts is required before you install one of these on your vessel*

Committed Rate increases, contracting for more CIR than you need can be a costly.

Vendors tend to offer CIRs ranging from 32 kbps to 256 kbps, or more. To determine how much you need, the best solution is to model your applications in a laboratory environment.

Considering that the contractual obligation for VSAT services under a three-year contract could easily exceed \$100,000 per vessel and that simulation is readily available at reasonable cost, the minimal investment in this service makes good business sense.

Always keep in mind that high capacity services with CIR are more expensive than fully contended services.

While some vendors of fully contended services can deliver adequate bandwidth by limiting the number of subscribers, such restrictions also limit profit. Such vendors face a delicate balancing act to maintain service levels while meeting their financial objectives.

In general, fully contended services are offered at low prices and characteristically employ moderate to very strict Fair Access Policies.

### Understanding Fair Access Policies

When evaluating a vendor, pay special attention to the company's Fair Access Policies.

Often included under the Terms and Conditions of Sale, these clauses essentially give the provider the discretion to downgrade the quality of your service should you run applications or transmit excessively large amounts of data which, in their estimation, overloads the network.

The more restrictive of these clauses prohibit the transmission of large files, web conferencing and many other activities, restrictions that would be intolerable for the commercial user.

Keep in mind that on typical container ships and tankers, unrestricted usage can easily exceed 20 gigabytes per month, possibly violating such policies.

So, if you are considering a fully contended service, understand the limitations imposed by these Policies. Know how much capacity you are permitted to use and insist on a way to monitor usage.

Beyond the Fair Access issue, one of the areas most prone to misunderstanding is the difference between platforms.

### L-band vs C-band vs Ku-band with backup

Until recently, vessels seeking global IP connectivity were limited to two choices: C-band or L-band (Inmarsat or Iridium).

For very large vessels, such as cruise ships, VLCC class oil tankers and certain types of oil service vessels, C-band based systems were and have been the preferred option. Advantages of C-band include fixed priced service, global coverage (+70 degrees north to -70 degrees south), and resistance to Rain Fade.

However, the principal disadvantage with C- is the need for a 2.4 metre stabilised antenna, a system component that weighs over a thousand kilograms, takes up an inordinate amount of deck space and costs nearly \$100,000. Hence, C-band tends to be reserved for a limited market with very specialised needs and large budgets.

Alternatives to C-band include L-band based Inmarsat FleetBroadband, Iridium OpenPort and Ku-band services.

While L-band offerings utilise much smaller antennas than C- and Ku-, they are pay-by-the-byte services sold with volume-based pricing, possibly making access to the Internet cost prohibitive.

At per megabyte charges of \$3 to \$8, usage costs could soar into the high five figures if left completely unrestricted, especially when accessing the Internet or transmitting large files.

As a potential alternative, fixed-priced Ku-band services are now available over most major shipping routes.

# Our power. > > > Your progress.

Today more of the world's maritime satellite networks are powered by iDirect. Our advanced VSAT platform allows our global network of operators to provide flat-rate, always-on connectivity services to meet the diverse and growing requirements of maritime applications. Better, reliable communications that lead to greater operational efficiency, more productivity, **more progress.**

*Visit [idirect.net/maritime](http://idirect.net/maritime) or call +1.703.648.8000 to learn more.*



Ku-band offers high capacity service and relatively unlimited broadband access at fixed-priced rates. Because it operates at a higher frequency than C-band, it can utilise much less expensive and space efficient 1.2 or 1-metre antennas.

However, unlike C-, it does not offer full global coverage and is susceptible to Rain Fade.

In order to take advantage of the low fixed-cost of Ku systems, they are typically deployed with Iridium OpenPort or FleetBroadband backup and a least cost routing device that switches between IP services as required.

This arrangement facilitates the full global coverage required by many shipping companies. Several manufacturers supply such devices, as software or hardware based systems.

**Backup – OpenPort vs FleetBroadband**

When using a back up L-band service, keep in mind that both OpenPort and FleetBroadband are pay-by-the-byte services.

While suitable for voice, e-mail, SMS and very limited data usage, their high usage costs generally rule out unregulated web browsing, large file transmission, video conferencing or other bandwidth intensive applications.

In fact, many ship owners even limit the size of e-mail attachments to one megabyte or less. So, when Ku- VSAT is unavailable, you need to limit use to voice and e-mail and 'lock out' all but

essential Internet access.

With this in mind, here is what we found when we evaluated the two services.

While OpenPort offers compelling advantages in terms of three channel simultaneous crew calling, lower data and voice charges, Polar Region access and a convenient rugged and low cost antenna, from our experience users tend to prefer the voice quality of the Inmarsat service although, given time, most users find OpenPort voice quality more than acceptable.

In terms of transmission speed, Inmarsat's FB 150 enjoys a slight advantage with its standard 150 kbps offering. Until recently, to obtain 128 kbps services on OpenPort required users to commit to a high-end pricing package and pay a premium for either 64 kbps service or 128 kbps.

However, Iridium has just announced that the need to subscribe to a high-end plan for 128 kbps service has been eliminated, along with any surcharges while, unlike Inmarsat, slower speeds will be available at discounted pricing.

So, in general, we find that in terms of features, the two services compare favourably. In terms of end-user satisfaction, OpenPort's rating varied significantly depending on the chosen service vendor.

Top notch, Tier 1 OpenPort vendors at the top of the distribution chain provide software to control and restrict usage, installation services, the critical site sur-

vey, supply of and management of critical firmware upgrades, excellent support and attractive discount pricing.

Conversely, sub-distributors at the edge of the dealer network tend to charge more, and offer inconsistent support, sometimes resulting in a poor user experience that is not typical of OpenPort.

So if you are considering the Iridium service, shop around. We believe that both Iridium OpenPort and FleetBroadband represent excellent options for a VSAT back up service.

**Small Antennas vs Large Antennas**

Understanding antenna size is one of the most critical considerations in selecting a VSAT service. Make no mistake, size matters.

Satellite professionals will tell you that while there are some very significant advantages to sub 1-metre antennas in terms of pricing and installation cost and reduced deck space requirements, these services typically require more transponder space and power and consequently cost more to operate than 1-metre or larger units.

In some cases where satellites operate in close proximity, the use of small antennas can create Adjacent Satellite Interference. To avoid this problem, VSAT service vendors with small antenna offerings often employ a technique known as Spread Spectrum.

Spread Spectrum spreads the energy

required to service the antenna across a large block of transponder space thereby reducing the power required and resolving the Interference problem.

For the vendor, however, employing Spread Spectrum requires a huge up-front cost and risk. Providers must lease large amounts of bandwidth and sometimes entire transponders. To achieve rapid ramp up and fill the transponder space, providers typically offer low cost services with higher Contention Ratios.

So, if you are seeking voice and basic internet and are not contemplating a sophisticated fleet wide networking application with ever increasing bandwidth requirements, then Spread Spectrum based services can be an excellent choice.

However, if you are a high end user, you need to weigh the advantages of a 1-metre or larger antenna units.

Although up-front hardware and installation costs are greater, a larger antenna has greater surface area and requires less transponder space and power. This means that services relying on the larger aperture can operate with Conventional Modulation rather than Spread Spectrum.

Unlike Spread Spectrum, Conventional Modulation running under iDirect or Vipersat platforms facilitates a business model where transponder space can be purchased in small increments and capacity increased along with the number of subscribers, thereby reducing vendor up-front investment risk.

**Broadband Connection**

# VSAT

Introducing maritime stabilized Ku-band 2-way communication antenna systems, **v-Series**

- High Performance
- Simple Installation
- Easy Maintenance
- Absolute Reliability

**Intellian**  
Experience the innovation.

Intellian Technologies USA, Inc. • Irvine, CA • 949-916-4411 • [intelliantech.com](http://intelliantech.com)

© 2009 Intellian Technologies, Inc. All rights reserved. Intellian and v60, v110, v130 and v-Series are trademarks of Intellian Technologies, Inc. All other trademarks are the property of their respective owners.

In addition, because larger antennas can deliver more bandwidth utilising less transponder space, there is no Adjacent Satellite Interference problem. Hence, vendors have high power capability and can offer high-end users the option of Committed Information Rates.

It is also important to consider that usage will likely increase significantly over the life of a VSAT service contract. For this reason, some vessel owners may opt for even larger 1.2 or 1.5 metre antennas with a view toward an increase in system capacity.

In the end, we find that large fleet owners with fleet-wide networking aspirations have a preference for 1-metre and larger antennas in global service applications, and they often insist upon a minimal amount of committed bandwidth or CIR.

On the other hand, some customers with less critical needs may find the lower-priced, Spread Spectrum services perfectly adequate for their needs.

### Full service vendors

When you buy a VSAT service, seek out vendors who take responsibility for the total system, including hardware and software maintenance. You should have a single point of contact for all system related issues.

When choosing a vendor, keep in mind that the components of a successful VSAT solution include the correct antenna, bandwidth and CIR, surveying the installation site and choosing the best position to install the antenna to avoid blockages and providing the appropriate L-band back-up service (Inmarsat or OpenPort).

Vendors should also provide software to monitor and control costs, crew access, and an onboard system that can reboot Network components automatically and provide remote maintenance access via the backup L-band network.

Never before has the maritime VSAT market been more competitive. Numerous new VSAT service vendors are rushing to market and Ku-band satellites with coverage over the oceans are rapidly filling to capacity - all despite the difficult economic conditions in the shipping industry.

As providers become more desperate to fill their leased transponder space, the market will abound with

new and progressively more attractive service offerings, making vendor selection even more difficult.

Prospective buyers need to exercise caution. The market is rife with misconceptions and misunderstandings, and we often find even the most sophisticated of buyers lost in the confusing claims of competing vendors.

DS



Alan Gottlieb is CEO of Gottlieb International Group, which specialises in assisting ship owners and managers with evaluation of satellite service offerings and helping service providers structure appropriate product offerings. The company's E-Book, 'An Independent Guide to Buying Maritime VSAT', can be ordered from [www.gottliebinternationalgroup.com](http://www.gottliebinternationalgroup.com). E-mail: [agottlieb@gottliebinternationalgroup.com](mailto:agottlieb@gottliebinternationalgroup.com).

**VIZADA** Satellite communications. And more.™

**FleetBroadband.**  
Get More with Vizada Solutions™

**Solutions**

Sail your vessel into the IP-era with cost-effective, global broadband data and voice communications. Inmarsat FleetBroadband enables simultaneous broadband data and voice through compact antennas to access emails, surf the internet and run your operational systems.

Get more from Inmarsat FleetBroadband with Vizada Solutions™, our unique range of value-added services. Available exclusively through Vizada Service Providers, Vizada Solutions™ are designed to enhance your communications by delivering:

- Security: End-to-end IP Sec encryption, personalized firewalls and anti-virus software
- Crew welfare: Prepaid services for voice and data
- Traffic control: Onboard cost control in real-time

Inmarsat FleetBroadband is available through Vizada, the leading independent provider of satellite communications services for users at sea, on land and in flight. For more information contact Vizada Customer Care or visit us at the Digital Ship Conference in Cyprus.

**Vizada EMEA & Asia**  
Email: [customercare.europe@vizada.com](mailto:customercare.europe@vizada.com)  
Phone: +33 (0)5 61 28 89 99

**Vizada Americas**  
Email: [customercare.us@vizada.com](mailto:customercare.us@vizada.com)  
Phone: +1 301 838 7700

[www.vizada.com](http://www.vizada.com)

**inmarsat**

# Today Globe Reinvents FleetBroadband!

Complete.

Competitive.

Compelling.

*For mariners,  
by mariners.*

You have seen the rest, now here it is, the latest Inmarsat distribution partner launches the most compelling, complete and competitive plans, built to satisfy your crew, manage your budget and control your costs. Contact your local sales office and find how there really is no other choice. We think you will agree that today Globe reinvents FleetBroadband.



[www.globewireless.com](http://www.globewireless.com)  
Phone: +1 (321) 308-0112  
[sales@globewireless.com](mailto:sales@globewireless.com)

## IMCA's e-CMID now available

www.imca-int.com

The International Marine Contractors Association's (IMCA) Common Marine Inspection Document (CMID) is now available electronically as e-CMID, along with a secure online database for the reports.

Registration and use of the e-CMID is free to all, both members and non-members of IMCA alike, at [www.imcacmid.com](http://www.imcacmid.com).

The 'traditional' form of the CMID was updated earlier this year by a cross industry workgroup, with input provided by contractors (vessel operators) charterers (oil companies through their association OGP), consultants (inspectors) and other interested parties.

Updated guidance for the new systems is already being prepared, which will cover how inspectors should assess elements and complete their report; and then how it can be integrated with the e-CMID and database.

Downloadable guides for vessel operators, inspectors and clients; FAQs for the CMID database website, e-CMID application, and CMID report content; and easy methods for reporting problems and providing feedback to IMCA will be made available.

"The launch of e-CMID marks a major milestone in the development of the CMID, which was initially developed in 1999 to provide an industry format for vessel inspection reports and to reduce the number of inspections carried out on individual vessels," explains Hugh Williams, chief executive of IMCA.

"Back then, vessels were subjected to repeat inspections each with a slightly different format because there was no acceptance of other clients' inspection results and no common approach available."

"Over the past ten years the CMID, and the consequent standardisation of vessel inspection, has had a most beneficial effect on efficiency, vessel quality and operational safety. However, we could not afford to rest on our laurels and, taking on board feedback from users of CMID, the launch of e-CMID was the logical step to take to ensure the document's continued usefulness."

In the electronic version the inspector will not be able to leave blanks or provide insufficient information - when the inspector answers 'no' to certain questions, a description of what is lacking must follow.

"We believe the electronic version will be easier and quicker to complete for the inspector," said Mr Williams.

"He should have certain information pre-populated which improves speed and accuracy. He should be able to create the report quickly whilst on the vessel. Any time saving at this point is very important to the vessel operator who, in the past, had to spend a lot of time whilst in port escorting inspectors round their vessels."

"A more accurate report can also improve the likelihood of an existing report being accepted and thus a new report not being commissioned - another saving."

The e-CMID is the necessary precursor of the database which will store the reports.

A number of users had previously reported that CMID reports were circulating with inaccuracies in them, which the vessel operator could not correct, and that updates to vessel equipment status could not be included.

There were also indications that several versions of reports could be in circulation at the same time.

It is hoped that the new electronic system will help to remove most of these issues and improve accuracy in the future.

"The new system allows the inspector to generate a list of findings to discuss with the vessel master before leaving the vessel," said Mr Williams.

"It also ensures the vessel operator has the opportunity to provide comments and updates on the inspector's findings report before, and after, it is lodged on the database."

"Clearly only one version of the report can exist on the database which addresses the feedback we received. Better quality reports and better access to them, both provided by the [electronic system], will be an improvement for all parties concerned - vessel operators, clients and inspectors."

## Seagull training system goes online

www.seagull.no

Seagull is launching an online version of its Seagull Training Administrator (STA) crew training software, offering access to Seagull's full computer-based onboard training library via the internet.

The system will give shore staff the opportunity to check on STA training records and statistical reports, as well as opening up access to all 149 of Seagull's Computer Based Training (CBT) programmes from anywhere in the world.

The majority of STA functionality will be available within STA Online, including personnel administration, competence training requirements and status reports,



Seagull's training modules can be accessed from anywhere via a web browser

company-specific CBT modules, crew evaluation and ability profiling.

No software is required to use the system, just internet connectivity and a Microsoft or Firefox internet browser.

"We have responded to the needs of customers by developing what is an intuitive online package that is both easy to use and offers a comprehensive training suite," said Seagull managing director, Roger Ringstad.

"STA Online includes a choice of CBT training that adheres to the IMO model for STCW titles, with onboard training courses including ECDIS, Ship Security Officer, and Safety Officer. Most courses are approved by Flag States worldwide."

"All training results can be accessed both on screen and in printed reports, and training modules can be run fully online, so that results can be stored in the customer's database. Users can start STA Online from a single link and do not have to install any software, while multiple users can enter STA Online at the same time from different offices."

The online package will also include a range of graphical reports, tracking fleet trends, individual vessels, or individual personnel by rank.

## Vizada weather solution updated

www.vizada.com

Vizada has released a new version of its SkyFile Weather solution, based on the latest edition of the Navimail2 software from Météo-France.

The release of the new system coincides with a renewal of the commercial agreement between the two companies to partner in providing digital weather information and software to the maritime community.

SkyFile Weather provides seafarers with customisable weather information, high resolution satellite images and other data such as sea surface temperature, wind and swell.

The new version delivers this meteorological information to crews through a direct internet connection established via the onboard mobile satellite terminal.

Vizada says that the service applies equally to all new generation IP-based services typically found on board ship,

such as Inmarsat FleetBroadband and Iridium OpenPort.

The new version of SkyFile Weather also enables customers to superimpose a forecast on its charts in order to determine the optimal route for the ship.

A monthly subscription option for the service will be introduced at the beginning of 2010, enabling customers to download up to three weather files per day for a fixed amount, as opposed to paying per file download.

"We have worked with Météo-France for ten years to develop an industry-leading meteorological service for seafarers," said Jean-Marc Duc, Vizada product manager, SkyFile.

"Through listening closely to their requirements, we have constantly evolved SkyFile Weather so that today it includes some of the most practical and sophisticated features on the market, including http compliance and meteorological routing."

## Bhagwan Marine to install crew safety system on 30 vessels

www.mobilarm.com

Western Australian marine operator Bhagwan Marine has confirmed that it is to roll-out the Mobilarm Crewsafe crew management system across its fleet of 30 oil and gas vessels following successful installations in November 2009.

Crewsafe is a wireless safety system designed to reduce the risk of injury or death through man overboard by using crew location monitoring and automatically initiating a network-wide alert to all personnel within seconds of an incident occurring.

In the event of an incident it automatically provides a GPS waypoint, range and bearing in order to facilitate a quick rescue of the person in the water. Crewsafe also offers additional security and communication functionality, such as a covert alarm capability, crew paging, First Aid training, and rescue asset and safety equipment management.

The system is currently being installed on three Bhagwan Marine vessels, including its newest vessel the multi-purpose utility catamaran, the LAURI - J. The Samson Explorer, which has had a pre-

installation survey completed, is earmarked for the next install and commission of Crewsafe within the Bhagwan fleet.

"If you happen to save one person then the company's objectives are achieved," said Bhagwan Marine managing director, Loui Kannikoski.

"I've worked in the commercial marine industry since 1974 and have experienced first-hand that prevention is the key to ensuring your crew are safe. Following the successful trials I can see Crewsafe will offer all our crew an extra level of safety which will help to save lives."



Instant alerts will warn of emergencies

# Web-based software from MarineCFO

www.marinecfolive.com

MarineCFO has released MarineCFO Live!, a web-based software solution for the marine divisions of enterprise organisations and workboat companies.

The system can be used to manage per-

sonnel, jobs, billing, maintenance and schedules without the need to install servers and software. The user pays a monthly subscription fee based on the size of the fleet for access to the service.

The application consists of four modules: Operations Live, Personnel Live,

Maintenance Live, and Vessel Live.

The operations module is used to manage areas like certifications, vendors, invoicing, logging, safety, and incident and regulatory reporting, while the personnel functions are used to control different aspects of crew management.



Marine CFO Live! combines various functions into a single interface



Keeping you in touch. Globally.

## FleetBroadband







## All you need is all you get

### Take advantage of our network & VAS and

- Control your cost
- Manage your traffic
- Secure your communication
- Integrate your fleet to your company's network
- Build your tailor-made solutions
- Keep your crew connected & happy



Maintenance Live allows users to design and manage custom maintenance solutions, with features including maintenance scheduling, outside service control, and capacity planning, while Vessel Live is an on-vessel solution with the capability to capture and manage electronic logs, report on incidents and manage ongoing maintenance orders.

The launch of MarineCFO Live! has also been bolstered by a new agreement with Echo Towing Service / Echo Marine, to use the system throughout its company.

"We chose MarineCFO Live! because it was a full-featured, cost-effective solution that didn't require servers and complex IT requirements" said Tommy Echols, president of Echo Towing Services / Echo Marine.

"More importantly, we were able to start using it right away and our people absolutely love it."

"We are extremely excited about launching MarineCFO Live!," added Joe Galatas, president of MarineCFO Inc.

"The small and mid-sized marine company can now take advantage of a cost-effective solution without the need for new servers, software, or IT. MarineCFO Live! will enable organisations to streamline their business processes by eliminating manual and inefficient procedures while only requiring Microsoft Internet Explorer."

#### Digital Ship

Scandinavia  
Thon Hotel Arena,  
Lillestrom  
March 17-18, 2010

To discuss available positions and rates, contact  
Ria Kontogeorgou,  
Tel +44 207 510 4933  
Mob: +44 7815 481036  
e-mail ria@thedigitalship.com

www.thedigitalship.com



# Maritime e-Learning podcasts added to broker portal

www.shipbrokerportal.com

SDSD, the developers of the Strategic Dataworks shipbroking software system, has announced the availability of Coracle podcasts on The Shipbroker Portal, its free online resource for the shipbroking community.

Material on subjects such as dry cargo chartering, insurance and tanker chartering and maritime law is condensed into a 10 minute audio track, downloadable from The Shipbroker Portal, the Coracle

website and iTunes.

"We have found the podcasts to be extremely widely used," said James Tweed, Coracle managing director.

"We have produced over 450 episodes,

with a total of over 150,000 downloads worldwide during Q3 2009, and making these available as a gadget on the Shipbroker Portal will certainly improve their uptake still further."



*'Over 450 shipping podcast episodes have been produced'*  
- James Tweed, Coracle

Podcasts will be available as a standard gadget on the portal homepage, delivering content from Coracle Online to all registered users.

Coracle operates online resources for the Institute of Chartered Shipbrokers, and offers education and eLearning systems in the form of podcasts, iPhone and BlackBerry applications, webinars and tutor support.

The shipping podcasts are developed in partnership with content providers such as The Baltic Exchange, and are currently sponsored by ShipServ.

**Chevron Corporation** has completed the launch of **Navarik's** Inspection software system at its Houston, San Ramon, London and Singapore offices. Navarik Inspection is a web-based cargo inspection application that automates nomination and inspection workflows, tracking the quantity and quality of oil shipments.

www.navarik.com

LEADER IN MOBILE BROADBAND

## Don't miss a shot of the 2010 Finals!

NEW for 2010!

Worldwide TV Satellite Library for Unmatched Convenience!

“ We want to reward our crew with a front row seat to this year's action-packed football finals, made possible through the TracVision M9 that has been installed on sixty of our vessels operating globally ”

- Sergey Minakov, Electrical Engineer Superintendent, Unicom Management Services

*For the captain who insists on quality and reliability, there's only one way to bring home theatre-quality TV onboard – TracVision. See the full line of systems for any size vessel at:*

[www.tracvision.com](http://www.tracvision.com)

KVH Europe A/S • Kokkedal Industripark 2B • 2980 Kokkedal • Denmark • Tel: +45 45 160 180 • Fax: +45 45 160 181 • E-mail: info@kvh.dk

© 2009, KVH Industries, Inc. • KVH and TracVision are registered trademarks of KVH Industries, Inc. • Specifications subject to change without notice. The unique light-colored dome with dark contrasting baseplate is a registered trademark of KVH Industries, Inc. • 09\_KE\_TVM9\_WorldCup\_Comm\_DigitalShip

# Turning crisis to opportunity at Exmar

**'Do less with more' – IT managers across the maritime industry may be familiar with slogans similar to this one, as budgets are slashed and costs cut. Christophe Vanneste and Ivan Renette, Exmar Shipmanagement, told *Digital Ship* about how they turned this 'mission impossible' into IT opportunity**

The year 2009 will be remembered as a time of chaos in the global economy, with companies and organisations around the world having to learn to deal with massive contractions in business, downturns in revenues and restrictions in their access to credit.

With its position as the circulatory system keeping international commerce flowing, the maritime industry is especially prone to such changes, and has been severely hit by developments over the last 18 months (as noted in the article on page 8, shipping is down approximately 15 per cent across the board).

Exmar Shipmanagement, part of the Exmar Group, is facing these challenges head-on, and the company has, over the course of 2009, looked to reorganise the way it conducts its business and make its overall operation more efficient.

Modifying the ICT structure of the Group was a fundamental part of the programme, and one of the key factors in making this a success was to look on the economic crisis as an opportunity rather than a disaster, explain Christophe Vanneste, ICT director, and Ivan Renette, PMS project manager, Exmar Shipmanagement.

"I still remember when my CEO mentioned at the first meeting of the year – 'by the way, I'm cutting 10 per cent of your budget, I don't know how you're going to

and upgrades are really needed. Someone told me they would volunteer to test the new version of Windows – I mentioned what the price would be to upgrade and they were shocked."

The bottom line in every department's operation, as far as the company's management was concerned, was that they 'do more with less'.

"Is ICT able to answer these questions? I believe we can," said Mr Vanneste. "We take these questions and generate opportunities by applying changes."

"The IT manager is trapped between two extremes – getting less capital for new investments but also needing to ensure a more flexible infrastructure to work in changing market conditions. It's not mission impossible, but it's not really mission easy either."

"We have been checking what investment we can do that will save us money in the end, and came up with some projects which we are implementing right now."

## Restructuring

One of the first projects undertaken was an internal restructuring of the ICT department within Exmar Shipmanagement, and a migration of IT elements from other parts of the group into this new structure, to create a more comprehensive singular system across the company.

"The result of this new accounting structure was more transparency in costs, and getting the rest of the company more linked to the IT and making them feel more involved in what the cost of IT actually is."

This transparency was also heavily linked with another of the Group's major initial goals – improved performance measurement.

"We implemented a measuring instrument for the ICT financials, for example, including the resources, costs, etc," said Mr Vanneste.

"Performance measurement is important, and the real target behind this is efficiency. So we first need to know what we are doing before we can act on it."

"We are doing this for the communication costs, for example, looking at what exactly is our cellphone usage, what exactly is our ship to shore communication, where does it happen, why is the cost that high. Then afterwards we can think about alternatives like VoIP, BlackBerry mail, and so on."

## Support

A critical element in this restructuring of the IT system and department was a focus on creating redundancy in knowledge and skill sets, to make sure that any improvements introduced would be resilient enough to survive if different people were unavailable.

"I don't want to have one guy running around in the department who holds all the knowledge, I want this guy to be able to take a vacation at some stage, so we've trained a second person, and then went on 'training the trainer' down the line," said Mr Vanneste.

"We need to do that to guarantee service, and we did it with all of the skill sets within the IT department. We always have two guys who can go to the vessels, two guys doing the PMS stuff. There are more people involved of course, but we make sure that there are two with the basic knowledge."

"We split the help desk with a first line and a second line, where the second line guy is also the server specialist, and another person is able to cover the second line, and so on."

Extra training is a pre-requisite for this kind of redundancy to be achieved, but while that will require additional investment it is likely to reduce costs in the long run, says Mr Vanneste.

"Training is so important, and creating the right mindsets of the guys going to the ships," he told us.

"They're experts in combinations of communications, SQL, and all of that stuff. If you don't train these people you need to send two people onboard, one for SQL and one for communications. If you remove that it creates your cost savings."

"The key element is to have all of the people working together. We have a functional mix within the team, there's a guy

sitting next to the PMS team who is an expert in servers and hardware. It has improved our efforts to keep everything running just by having those guys together and improving communication."

The support network has also been bolstered by the introduction of a 'Follow The Sun' system, where help is available from different regional offices 24 hours a day.

"Under the Follow The Sun concept, we start in Singapore where they do an eight hour shift, they hand over to Antwerp, and then we hand over to Houston, before the cycle starts again," said Mr Vanneste.

"This has been excellent for support services, and this is what our vessels deserve. It also brings the travel costs down, if you have to send an IT guy to a vessel in Asia somewhere it costs money. And it's faster."

## Six Sigma

Another project the company has begun work on is implementing Six Sigma methodology, an initiative originally developed by the Motorola company in 1981 with the goal of minimising variability in business processes.

"Six Sigma is a methodology that aims to reduce variation and eliminate waste – we are combining those two elements in a lean Six Sigma project, where the goal is reducing both at the same time," said Mr Vanneste.

"That may sound like a business project rather than an IT project, and it is, but IT is very involved in the data gathering and exact measurement. There's lots of data and IT is definitely needed for the project."

"We do the visualisation of that data – a graph or a picture says more than a thousand words. We also provide analytical tools for data drilling, and check on trends, like, for example, on server performance and service performance, to keep track of things ourselves."

With all of these projects the ultimate goal was to demonstrate how the ICT function within Exmar could work as a value driver for the business, with a solid return on investment.

"ICT in control' is an internal IT project where we implemented ticketing systems, problem management, change management, all to get better control of the whole ICT department," said Mr Vanneste. "That way efficiency can be made possible from within the department itself."

"But, at the end of the day, the main reorientation we did was to make the IT a business enabler instead of a cost centre. We are working with the business and talking about IT and business together."

"We can help the business by selecting good applications and tools, and not have everyone using Excel for everything. Better usage of the IT systems will make the working of the IT department more efficient – this is key."



Two Exmar LNG vessels performing a ship to ship transfer – off-hire of these vessels is unacceptable for the company

do it, but just do it," recalls Mr Vanneste.

"Budget cuts, headcount freezes, questions about whether you really need all of those people in your team, what exactly they are all doing. Things like controlling cell phone usage, instructions on cutting travel, questions on whether training you're providing is really needed – these were all looked at."

"They ask if newer versions of software

"Formerly we used to only do the IT for Shipmanagement, but we are now doing the ICT for the entire Group," said Mr Vanneste. "We created a new domain, new platforms, and new servers."

"For accounting and budgeting, we linked it more into the company structure and generated a price per unit that we could charge to internal customers – so it became 'pay per usage'."

## Planned Maintenance System

One good example of how the Exmar team has approached this 'IT as business enabler' concept has been the evolution of its Planned Maintenance System (PMS) over the last 15 years, as Ivan Renette, PMS project manager, explains.

"We started introducing planned maintenance with our own in-house built system in 1995, a system which was running in Sybase and programmed in PowerBuilder that we implemented simply because we wanted to replace the Excel sheets onboard," he said.

"We started by implementing it in the office and then moving on to, at that time, 56 vessels. After it was implemented, management began to realise that the system was not as it should have been – it was not class approved, it had a lot of problems with security, no user log-in, and so on."

"We had no clue which equipment was common throughout the fleet, and this was one of the main reasons why we needed to go and look for other systems. So we started to look around in the market to see which system could really help us and fit our company."



*"I still remember when the CEO said he was cutting 10 per cent of the IT budget" – Christophe Vanneste, Exmar Shipmanagement*

This search led to Exmar choosing the Task Assistant system from maritime software provider Ulysses Systems to run its planned maintenance, beginning the implementation process in 2004.

"Today we have our complete fleet up and running with Task Assistant planned maintenance systems, and it's completely fully integrated with our accounting systems and with our data warehouse system," said Mr Renette.

"Currently we have a complete data population team in Manila which is in direct communication with the Captains. I don't want to read about why a Captain needs a spare part, I just know that he needs it, so let him contact the data population team directly to get the correct information where he needs it."

"To give you an idea of what we're talking about, our office library containing the components, now has around 50,000 generic components. We have around 600,000 spare parts, and around 50,000 store items."

## Business enabler

Mr Renette says that Exmar is now using its PMS to produce KPIs and do reporting for its technical marine department, providing information that is helping to improve efficiency and reduce costs – turning the PMS into a business enabler rather than a cost centre.

One way that this is achieved is by the system keeping accurate records of the components stored and in use throughout the Exmar fleet.

Following trends in the required levels of different available and purchased components can help the technical department to understand where breakdowns in different systems and equipment may be occurring, a valuable piece of information when it comes to managing overall fleet uptime.

"This is something that we feed back to our newbuilding division to enable them to make the correct choice on the equipment that they are going to put on the new ships," said Mr Renette.

"Another thing is that we are now able to really fine-tune and optimise the workflow. In the purchasing department, for example, we now know which spare parts we need the most, which stores we need the most, and we can go to the manufacturers and force them to give us fixed pricing."

"This reduces the cost and prevents us from spending money unnecessarily. Stock is money, we have to reduce it, making sure that there are enough spares on board but not too many. This is something that we are able to track and take out of our current system with the PMS."

Mr Renette notes that the system improvements have even created noticeable improvements at the basic level of purchasing and distributing the parts and stores.

"Our vessels are around the world, seven days a week and 24 hours a day. Where are the spares, will they be in time, will they be correctly processed?" he said.

"We now have a complete status report of where the spares are. We are providing our suppliers with information telling them about where exactly we have breakdowns in our real life systems."

"Feeding back that information makes sure that they can provide us with better equipment, less breakdowns, and reduced risk of us going off-hire – and off-hire is something that you don't want to say out loud within the company."

This overall drive for efficiency then feeds back into the company's quest for Six Sigma, to make sure there is less waste in the business process.

"Based upon our complete underlying planned maintenance structure, and how we have organised the components within that system, we are now able to provide the necessary information to different departments within the company to make sure that they can work in an efficient way," Mr Renette said.

## Future improvements

With Exmar having used the economic downturn as a driving force to improve efficiency and value creation in its IT systems, the company now expects to carry on and introduce further additional improvements over the coming years.

One goal which Mr Renette is currently working towards is improved standardisation in information management across the company's vessels and offices.

"Internally we are now implementing Document Manager (into the Task Assistant) onboard the vessels, we have successfully updated our system and will put that on all of the vessels to provide one platform for everyone," he said.

"That will also reduce the need for training as people will know the system, and will allow them to access the company procedures whenever they need to, for manuals, check lists, and measurement reports."

"In the near future we will integrate a drydock specification generator and continue our reporting of KPIs for the technical department and marine department, which will hopefully eventually then also be fed to external services."

Exmar's new found drive for efficiency since the onset of the economic crisis has reflected, to some extent, a wider issue in the maritime industry, whereby companies were performing so well that the focus on promoting efficiency was lost, notes Mr Vanneste.

"We've all been busy on different investments and there hasn't really been an opportunity to look back and see how much money was being spent on systems – if they worked then it was ok," he said.

"If there were problems we'd just add more people, they could swing by and solve the problem and it would go away – but the root cause wasn't really solved."

"If we orient the IT more towards being a service rather than just solving problems then we will be checking on how the IT works within the company, and the root causes. In the end that will create reliable



*"The PMS needs to be a business enabler, not a cost centre" – Ivan Renette, Exmar Shipmanagement*

systems. That is why we did this."

Having seen the benefits of a lot of the hard work and large structural changes necessitated by the changing fortunes of the global economy, Mr Renette and Mr Vanneste are confident that they turned that potential adversity to their advantage.

"Is the crisis an opportunity or a disaster for the ICT department? I think we have seen that it has been very much an opportunity for us," said Mr Vanneste.

"That is what we have done in 2009, and I'm sure we'll move forward with plenty more projects in 2010."

"The key really is reorganising the IT to be a business enabler rather than a cost. In crisis times, reliable and good quality managed vessels will get the cargo." **DS**

**ShipSat**  
www.ShipSat.com

- Ku and L-Band Connectivity
- Always on global coverage
- Flat monthly rates
- Quick and easy to install
- The advantage of World-Link value added services
- Use of email and Internet
- Predictable and easy cost control
- Secure & reliable broadband connection
- 24/7 customer and technical support

**WORLDLINK**  
COMMUNICATIONS

**info@wlnet.com | 508-370-7778**

## Enhanced radar launched by Kelvin Hughes

www.kelvinhughes.com

Kelvin Hughes has launched new Enhanced Target Detection (ETD) features as an improvement to its MantaDigital range of wide-screen radars.

The company says that the new technology significantly enhances the display of slow-moving or stationary targets, without interfering with the normal radar appearance or operation.

ETD treats stationary and moving returns differently, highlighting the moving ones by displaying them in a different colour.

Combined with the dual PPI (plan position indicator) mode available on the

radar this enables the operator to continue using the radar in the normal way, with the addition of a simultaneous advanced detection view available on the secondary PPI without cluttering the main display.

Controls are provided to enable the operator to change the weightings between fixed and moving targets to achieve the best possible picture in varying conditions.

"We originally developed the mode for detecting ice but have found it is equally useful for detecting small targets, such as buoys, which might otherwise be seen only intermittently or not at all," said Spike Hughes, Kelvin Hughes director of sales and marketing.

"We have also found that navigators appreciate the clarity provided by removing unwanted clutter and by painting moving targets in a different colour. The overall effect on the screen is almost a 3D or embossed view of details such as waves, vessel wakes and coastlines while still maintaining an exceptionally clear picture."

"Customer response to the ETD mode has been very encouraging. One customer, a barge operator on the Rhine, was amazed that he could even spot dogs running on the river banks!"

The ETD mode is available as a software upgrade to the standard MantaDigital Radar or Chart Radar products, with no additional hardware required.



The normal radar image (left) and satellite image (centre) are combined in the enhanced display mode (right)

## ER Offshore extends positioning agreement

www.veripos.com

Hamburg-based ship management organisation ER Offshore has extended its long-term working agreement with positioning technology company Veripos.

The agreement, an addition to a previous deal in early 2008, covers the provision of positioning services, delivered via the Veripos LD2 integrated hardware platform and utilising the Verify DP graphical user interface.

Veripos currently provides services and support facilities for six of ER Offshore's UT755 LN Platform Supply Vessels (PSVs) operating in Brazil, the Gulf of Mexico and the North Sea.

The new extended contract covers the provision of identical satellite-based positioning services, equipment and software for a further two new DP2 UT776 PSVs and a series of six new DP2 anchor-handling tug supply (AHTS) vessels.

The first of these, ER Vittoria, is due to begin service at the end of 2009, with the remainder of the fleet expected to be commissioned throughout 2010 and 2011.

"We looked hard at what we required on both our existing and future vessels," said Ian Perrott, managing director of ER Offshore.

"From our experience of working with Veripos to date, we felt that the best service and option for us was to remain with the company. We are therefore pleased to have strengthened our relationship through the extension of our existing agreement."

MarineSTAR®



# Know where you're going

- The MarineSTAR Manoeuvring System provides high accuracy position, course and speed - both in the forward direction and athwartships.
- MarineSTAR assists manoeuvring in restricted waters and confined port areas. Quay distance calculation aids berthing of large vessels.
- MarineSTAR can be integrated within ships bridge systems to provide stable accurate, position course and speed data. This is especially valuable to ships using electronic charting.

# New AIS display system from Vesper

www.vespermarine.com

Vesper Marine has launched the latest version of its new collision avoidance display, the AISWatchMate RX, for use with onboard Automatic Identification Systems (AIS).

The AISWatchMate can be used with any external receiver or transponder, with the new version of the stand-alone safety display system including an internal parallel two-channel AIS receiver.

The device displays class A and class B vessel position; voyage data; navigation aids; AIS safety messages; and meteorological and hydro-graphical information, where available, including real-time wind, current and tidal data.

The AISWatchMate RX also includes additional filtering capable of removing non-converging vessels and a target prioritisation algorithm allowing it to plot crossing situations and illustrate target vessels that pose the greatest collision risk.

Once identified, the system automatically displays target information for potentially dangerous vessels including name and call sign to aid in inter-vessel communication.

The device displays GPS navigational

data including course, speed, heading and satellite status, expanding its functionality as a second-station GPS display.

"Our AISWatchMate RX is an exciting addition to our AISWatchMate product line, offering a sophisticated collision

avoidance system in a simple and easy to install package," said Jeff Robbins, co-founder, Vesper Marine.

"Gone are the days of complex set up and concerns over proper operation. By eliminating the need for a separate black box receiver, users simply plug in a VHF antenna and connect the unit to a GPS device and they're up and running."

## Accessing Capital in Today's Markets

### CAPITAL LINK GREEK SHIPPING FORUM

Tuesday, February 23, 2010 - Athens, Greece

#### Coming out of the Crisis – Positioning for the Rebound

- How is the current global slowdown in shipping different than previous downturns?
- What are Greek ship owners doing to weather and benefit from today's market volatility?
- What steps are they taking for the future?
- Will banks new lending restrictions eliminate the small ship owner?
- What are the various mechanisms through which ship owners can meet their financing needs?

Greek ship owners are a major force in global shipping operating more than 20% of the global fleet. Throughout the many historical downturns, Greek ship owners have been able to manage and survive weak freight markets long enough to turn losses into profits when markets improved. This could be the reason why the shipping and investor community continue to look at the behavior of Greek ship owners during peaks and troughs as they have been able to prove the art of success in one of the most difficult to predict professions in the world.

The 2010 Greek Shipping Forum in Athens debates the current trends in the shipping, financial and capital markets and focuses on the latest capital raising methods and various

alternative funding options in a tight credit market for public and private ship owners. Also, how to manage risk in today's global and highly volatile market environment.

The Forum will also evaluate new and emerging business models by the Greek Shipowning community in response to asset value reductions and volatility in the global shipping markets.

Taking a hard look at new global investment strategies and risk, the Capital Link Shipping Forum is designed as an interactive informational and networking forum for addressing a range of current opportunities and challenges specific to the shipping community but relevant to all global financiers and investors.

## AIS-SART rules change for 2010

www.lr.org

Lloyd's Register has issued a bulletin to notify stakeholders of changes in regulations affecting AIS SART search and rescue locating devices.

It notes that a number of amendments have been made to MSC regulations 256(84), 259(84), 260(84) and 246(83), to allow the use of AIS search and rescue transmitters (AIS-SART) as an alternative to survival craft radar transponders (GMDSS-SART).

Lloyd's Register notes that the SOLAS Convention and the HSC Codes currently require two GMDSS SART that respond to navigation radar on each side of the ship (though only one is required for ships between 300 gt and 500 gt).

The above amendments allow the use of either GMDSS-SART or AIS-SART, and are applicable to ships constructed on or after January 1, 2010, or ships having equipment replaced from this date.

All AIS-SART equipment to be installed must be type approved under performance standards set out in MSC 246(83).

#### GLOBAL LEAD SPONSOR

Fortis Bank Nederland

#### GOLD SPONSOR

Knight

#### SILVER SPONSOR

PRICEWATERHOUSECOOPERS

#### SPONSORS

CANTOR Fitzgerald

CREDIT SUISSE

Deloitte

FRIED FRANK

GMS Leadership

Jefferies

SEAFAR

MARFIN EGNATIA BANK

MAXIM GROUP

#### MEDIA PARTNERS

Digital Ship

economic outlook

ELNAVI

FAIRPLAY

Lloyd's List

THE MARITIME EXECUTIVE

SEAFAR

NAFS

NAYTIKA XPONIKA

TradeWinds

Worldoils

To register, visit [www.capitallinkforum.com](http://www.capitallinkforum.com).

For more information, please call +30-210-610-9800 (Greece) or +1-212-661-7566 (New York).

## Adams Offshore switches to Jeppesen Primar for ENC's

www.jeppesen.com  
www.primar.org

Adams Offshore reports that it has installed the Jeppesen Primar ECDIS Service on one of its dive support and offshore supply vessels, and is considering implementation of the solution across its fleet worldwide.

Adams Offshore uses a Microplot 7 ECDIS on the DPSV Adams Challenge, a 2009-built offshore support vessel. This system ran into problems with the installed ENC/ECDIS Service and with licence renewals in the Gulf of Mexico, where the vessel was on assignment for EPIC.

Adams Offshore's technical partner, Mobile Marine Technology, identified the problem as difficulty downloading and obtaining chart licences from the ENC provider.

"We had technical support on the vessel for a week. At the end, we concluded that the supplier had a problem with its database in the Gulf region," said Adams Offshore technical manager, R Rajeev Kumar.

"Then, we tried the Jeppesen Primar ECDIS Service as a back-up while we tried to resolve the problems. Eventually, the vessel's captain and I decided simply to use the Jeppesen service on both the back-

up and primary ECDIS. Since then, chart management has run smoothly."

Adams Offshore installed the Jeppesen Primar ECDIS Service on DPSV Adams Challenge in October, and Mr Kumar says that since then the system has been operational and problem-free.

Based upon this experience, Adams Offshore chose to equip both of DPSV Adams Challenge's ECDIS systems with the Jeppesen Primar ECDIS Service, and to install the same service on its DPSV Adams Aquanaut offshore support vessel.

Mr Kumar says that the company now plans to use the Jeppesen Primar ECDIS Service across its fleet.

"This instance shows the value of a service that is reliable and easy-to-use. It is this commitment to users' needs that lies behind our service and all of our solutions," said Jeppesen Marine marketing and communications manager, Willy Zeiler.

"In this case, it seems that the customer was wrongly informed about Jeppesen Primar ECDIS Service being an official source of ENC chart data."

"We are happy to see that a growing number of serious operators, including Adams Offshore, now understand that Jeppesen provides official ENC chart data, enabling easy operation, including simple downloads, pay-as-you-go licensing, online updates and value-added information like weather and route planning."



Adams Challenge's dual ECDIS are both installed with the Jeppesen Primar ECDIS service

## ChartCo reaches 4,000

www.chartco.com

ChartCo has agreed an additional subscription deal with Iino Marine Service Company Ltd, helping the number of vessels now taking services from ChartCo to break the 4,000 barrier.

ChartCo Broadcast, which uses the Inmarsat point to multi-point service, has been operational since January 1999. Since this time the company has supplemented its services with ChartCo Select, which offers data delivery through broadband or dial-up internet access, as well as e-mail.

Information available through the system has also expanded over the years beyond core items like chart corrections and Notices to Mariners to include news, weather, virus updates and others.

Toshio Araki, general manager IT promotion with Iino Marine Services, commented on the deal, saying: "With such a diverse range of vessels it is essential that we have suppliers that can react quickly to our requirements and are capable of satisfying our wide range of data services."

"Ensuring our vessels are up to date with chart corrections leads to greater safety whilst an added value of the ChartCo service is its cost effectiveness and comprehensive user software, enabling savings to be made in terms of both money and labour."

Steve Mariner, ChartCo manager, added: "We are very pleased that such a well respected company as Iino Marine has consistently chosen to fit the ChartCo system on board their vessels."

"They have been a customer of ChartCo for many years and are typical of the type of high quality ship operator that chooses to fit ChartCo to ensure that their vessels carry up to date maritime data."

"We are also immensely proud that these latest orders mean that ChartCo now provides data to over 4,000 individual vessels."

## Denmark to use space-based AIS

www.exactearth.com

Space-based AIS company exactEarth has entered into an agreement to provide its exactAIS data service to the Danish Maritime Safety Administration (DaMSA), on a paid trial basis.

Under the agreement, DaMSA will be provided with an AIS data feed and value-added services for a limited time, commencing with the launch of exactEarth's first operational satellite in the second quarter of 2010.

DaMSA intends to use the data to enhance its global ship tracking abilities, maritime risk assessment and Aids to Navigation planning, particularly in the

Arctic region, as well as improving Search and Rescue operations.

"We are very interested in the potential to augment our existing sources of data on maritime traffic through exactEarth's unique global coverage and very high detection rates," said Omar Frits Eriksson, head of DaMSA's innovation and project division.

"We hope to use the trial data to advance our knowledge of space-based AIS capabilities and develop expertise which we can ultimately pass on to other nations that share our goals."

exactEarth says that it is currently making its exactAIS trial programme available to a limited number of maritime authorities around the world.

"We are very excited to have signed our first international government customer," said Peter Mabson, president of exactEarth.

"DaMSA has long been a pioneer and a leader in the use of AIS technology, and we are pleased to have their endorsement in hand as we continue to pursue additional customers."

"We are seeing strong interest in our trial programme, which is designed to enable customers to experience the benefits of exactAIS for a relatively small financial commitment. We are confident that most, if not all of these users will sign on for longer-term service contracts once they have had the chance to work with our service and develop their own concepts of operations."



AIS detection from space can give a wide scale view of international shipping traffic

## Veripos adds Falklands GPS reference station

www.veripos.com

Positioning company Veripos has added new reference station facilities in the Falkland Islands to enhance its multi-source Differential GPS service.

The new reference station will improve positioning services for the South Atlantic and Southern Ocean regions, supporting offshore positioning and survey tasks by delivering augmentation on the 98W and AORW Inmarsat communication satellites.

User guidance on how to manually add the Falklands station to verifiable station listings are located at the 'Knowledge Base' section of the Veripos online support system (VOSS). Commenting on the development, Bobby Johnson, technical director of Veripos, said that the new reference station has been installed in response to increases in offshore activity within the South Atlantic and Southern Ocean regions.



# JRC's unified design designed for life at sea

NAVTEX  
NCR-333

MF/HF  
JSS-2150

VHF  
JHS-770S/780D



GPS compass  
JLR-20/30

(D)GPS navigator  
JLR-7500/7800



- Advanced modular design
- Intuitive user-interface
- High visibility display
- Excellent on-screen menus
- Responsive and backlit keys
- Fully IMO approved

visit [www.jrceurope.com](http://www.jrceurope.com) and discover all ins and outs

## Compact bridge system from Sperry

[www.sperrymarine.northropgrumman.com](http://www.sperrymarine.northropgrumman.com)

Sperry Marine has introduced a new compact integrated bridge system (CIBS) designed to reduce installation costs for onboard navigation.

The new CIBS is based on Sperry Marine's VisionMaster FT technology, and uses its TotalWatch multifunction displays to allow users to customise display screens to meet operational requirements. The high-resolution widescreen display consoles provide a 25 per cent larger viewing area than standard screens.

Standard operating modes include conning information display, radar only, chart radar and ECDIS, with Sperry Marine's iView 3-D picture for underwater contours and hazards an optional extra.

The standard VisionMaster FT CIBS

package includes three-node console/display units and steering stand, as well as all necessary subsystems and sensors, including gyrocompass, speed log, echosounder, AIS, VDR, GPS, steering controls and self-tuning adaptive autopilot.

"The smaller footprint and standardised equipment packaging will reduce the costs of acquisition and installation for ship owners and shipyards, and will bring the benefits of state-of-the-art CIBS technology to ships of all types and sizes," said J Nolasco DaCunha, vice president of Sperry Marine.

"The scalable system architecture means that the CIBS can be easily expanded with field upgrades to add new features and functions, including Sperry Marine's next-generation performance-based navigation capabilities for improved ship efficiency through greater ship-shore integration."



The combined system could reduce installation costs for shipyards

## US Nationwide AIS passes review

[www.ngc.com](http://www.ngc.com)

The US Coast Guard and Northrop Grumman (parent company of Sperry Marine) have successfully completed a Critical Design Review (CDR) of the core data exchange capability that will serve as the foundation for the US Nationwide Automatic Identification System (Nationwide AIS).

Nationwide AIS is to be introduced to enhance maritime security, marine and navigational safety, search and rescue efforts and environmental protection.

The two-way maritime digital communication system will query incoming vessels to check vessel identity, position, speed, course, destination and manifest and cargo data.

This information will then be combined with other government intelligence and surveillance data and shared with autho-

rised government operators to enhance maritime situational awareness.

The CDR was intended to demonstrate that the design of the system is appropriate to proceed with full-scale fabrication, assembly, integration and testing, and has now determined that the technical effort is on track to complete the development and meet mission performance requirements within the identified cost and schedule constraints.

"By collaborating closely with the Coast Guard, we were able to complete the Nationwide AIS program critical design review three weeks ahead of schedule, and within budget," said Mike Twyman of Northrop Grumman's information systems sector.

"We will continue our focus to bringing forward this key capability that ensures greater security and more efficiency for our nation's ports and waterways."

## ACR to supply AIS for Dutch project

[www.acr-europe.com](http://www.acr-europe.com)

ACR Electronics has been awarded two contracts amounting to €1.25 million to build, ship and install complete inland Automatic Identification Systems (AIS) in the Netherlands.

The contract has been awarded as part of a pilot project being run by the Dutch Rijkswaterstaat, part of the Ministry of Transport, Public Works and Water Management.

The 'Corridor 895' project is part of the

Netherlands Inland Waterway initiative for vessels active in the corridors which are longer than 20m, or commercial vessels shorter than 20m.

ACR's NAUTICAST Inland AIS transponder, a dual mode SOLAS and Inland AIS transponder designed specifically for inland waterways, represents the bulk of the tender, which in total accounts for hundreds of AIS units.

These will be outfitted through four partner companies: Autena, De Wolf Products, Huisman Maritiem, and Shipton.

**Comark Corporation** has introduced the Marine Panel Magic Elite series of panel mounted marine displays and computers. The computer features a range of processing architectures, from Celeron M to Core 2 Duo Mobile, up to 4GB RAM, and compact flash up to 32GB, while the LCDs feature full-dimming capability, with sunlight readable or standard brightness options.

**Telemar UK** has appointed Sally Cust as business development manager. Ms Cust has previously worked as sales & marketing manager for **AMI** and as a customer



Comark's latest display features sunlight readable or standard brightness functions

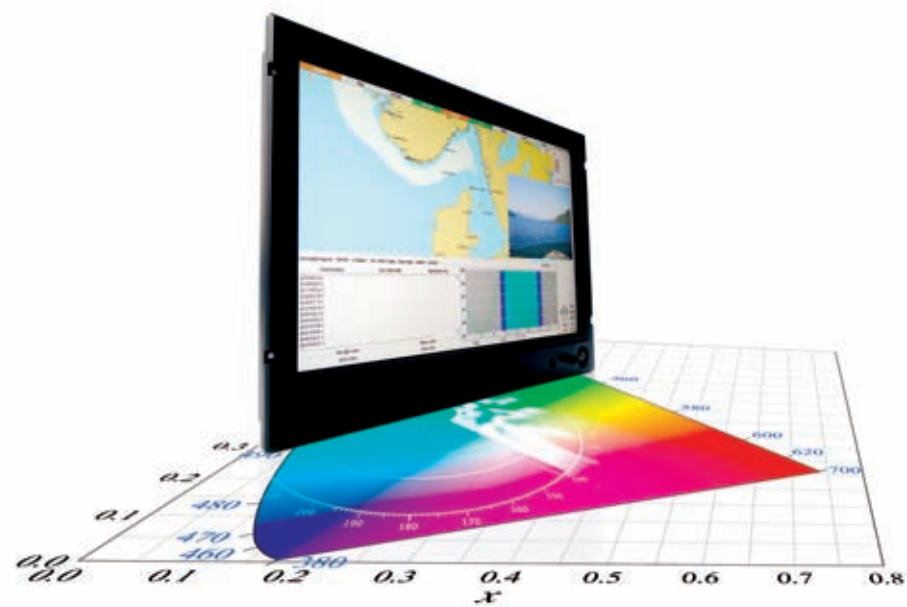
services manager with **Kelvin Hughes**.

**Hatteland Display** has signed a three-year extension of its cooperation agreement with **Sperry Marine** for the supply of high-resolution colour displays. This is the fourth such extension between the companies, with the first dating back to 2000. Sperry Marine also serves as an authorised service agent for Hatteland Display.

**Ships Electronics Services (SES)** has been appointed by **SeaView Europe** as the exclusive UK distributor of its radar and communications mounting brackets.

**Shanghai Maritime University (SMU)** and **DNV** have signed a strategic partnership agreement to establish the SMUDNV International Cooperation Centre, with the aim of cooperating in the areas of competence development, training, and maritime research and development.

Offshore drilling company **Dolphin AS** is to install dual ECDIS from **MARIS**, with official ENCs, for three fourth-generation semisubmersible drilling units: Borgland Dolphin, Bideford Dolphin and Bredford Dolphin. Rune Trondsen, marine superintendent at Dolphin, commented that the decision to implement dual ECDIS was taken to promote safer navigation.



Hatteland has agreed a deal to continue supplying screens to Sperry Marine

**Mackay Marine**, a division of **Mackay Communications**, has expanded its operations with the opening of two new marine-electronics service locations in Corpus Christi, Texas and Panama City, Panama.

**Radio Holland Group** has opened a new service office in Port Elizabeth, South Africa. This will be the 63rd office in the Radio Holland Global Network and the sixth office in South Africa.

[www.hatteland-display.com](http://www.hatteland-display.com)  
[www.sperrymarine.northropgrumman.com](http://www.sperrymarine.northropgrumman.com)  
[www.telemar.co.uk](http://www.telemar.co.uk)  
[www.ses-marine.com](http://www.ses-marine.com)  
[www.seaviewglobal.com](http://www.seaviewglobal.com)  
[www.comarkcorp.com](http://www.comarkcorp.com)  
[www.dnv.vom](http://www.dnv.vom)  
[www.maris.no](http://www.maris.no)  
[www.mackaycomm.com](http://www.mackaycomm.com)  
[www.radiohollandgroup.com](http://www.radiohollandgroup.com)



# Stay in touch

Connecting you and your business on board



Satlynx is a leading global provider of satellite communications services with over 12,000 VSATs in more than 130 countries and offers broadband satellite connectivity across ocean, sea and inland waterway for small groups of vessels operating regionally to fleets operating on a global basis.

Visit us at Digital Ship Cyprus 2010  
3 - 4 February, St Raphael Hotel, Cyprus  
Stand 17

[info@satlynx.com](mailto:info@satlynx.com)  
[www.satlynx.com](http://www.satlynx.com)



## ENCTrack made available on fixed price basis

www.datema.nl

Electronic chart distributor Datema of the Netherlands has been appointed as an IC-ENC Value Added reseller (VAR), and will be offering a modified version of its ENCTrack service from early 2010.

This version of its chart licensing and distribution system will allow the company to offer official electronic charts from both IC-ENC and Primar for a fixed price.

Using ENCTrack a vessel's usage of ENC licences is automatically determined by a tracking system, installed on board. All available ENCs are held on board and updated as required.

"We are very pleased to make this step," said Datema director, Willem Amels. "It is proof of our technical competence and our commitment to making innovative solutions for the distribution of ENCs."

"The appointment as VAR means that we will have a closer relation to the producing hydrographic offices, which will help to introduce new innovative solutions like ENCTrack."

"IC-ENC plays a central role in ensuring that ENC data quality standards and distribution policies are made consistent



A full release of the ENCTrack system will depend on further changes in ENC licensing

across hydrographic organisations, which in turn is essential to the delivery of consistent, high quality, integrated services."

Following the launch of the ENCTrack fixed price option, Datema says that it plans to eventually re-launch the original concept of ENCTrack whereby a user can view an entire world folio of ENCs, but

only pay for the charts of the areas they travel through.

However, this re-launch will be dependent on closer alignment in the distribution policies of the IC-ENC and Primar RENCs during 2010, and the parties reaching a deal on further amendments to licensing policies.

## Cybit accepts acquisition terms

www.cybitholdings.com

Tracking company Cybit and Cyberspace Bidco Limited, an acquisition vehicle controlled by investment funds affiliated with Francisco Partners, have reached agreement on the acquisition of Cybit Holdings.

The terms of the cash acquisition value the entire issued share capital of Cybit Holdings PLC, listed in London, at approximately £23 million.

Cybit provides telematic tracking and positioning solutions for both maritime and land-based applications, with its Bluefinger brand offering vessel monitoring and tracking. The company is also involved in fisheries management for a number of EU governments.

Francisco Partners is a technology-focused private equity fund with approximately \$5 billion under management. The firm has invested approximately \$4 billion of equity capital in over 50 technology companies since its founding in 1999.

The investment by Francisco Partners will allow Cybit to further expand into new markets across Europe, operating under the same management team.

"While Cybit is already on firm footing financially today, the additional investment and security provided by Francisco Partners will be invaluable to our company moving forward," said Richard Horsman, CEO, Cybit.

"We believe this investment will provide substantial capital for future organic growth as we look to expand our offering of products and services."

"In addition, as the telematics market is currently quite fragmented and overall penetration still low, Cybit will be in a strong position to consider opportunities for acquisitive growth both in the UK as well as across the European continent."

The announcement of the proposed acquisition is the first step in a process which, if taken to its successful conclusion, will see Cybit de-listed from the London stock market and placed into private ownership early in 2010.

## AIS vessel tracking on the iPhone

www.gcaptain.com

The mariners at gCaptain.com have teamed up with Maritime Information Systems (MIS), a provider of vessel tracking solutions, to launch 'gTrax', a vessel tracking application for the iPhone.

The gTrax system uses the MIS network of Automatic Identification System (AIS) antennas to gather information directly from commercial vessel transmissions at various harbours.

Once processed through the MIS server, the information is pushed out to the iPhone and the location of each ship is plotted on the app's built in Google map.

Each ship is colour coded according to its speed and oriented by course, giving a

'heads-up' view of the marine traffic around the user.

Clicking on a vessel provides additional information, such as ship's destination, job function, and navigational status.

Targets can be sorted by vessel name and function and by type, including cargo, tanker, passenger, and others. The system can also track smaller vessels equipped with AIS-B transmitters.

Locations currently supported by gTrax include San Francisco, New York, Baltimore, Beaumont (Texas), Boston, the Great Lakes, Miami, Seattle, Tampa and Shanghai, with more regions expected to follow.

The gTrax application can be downloaded from the Apple iTunes App Store.



AIS? There's an app for that

## IBS for Intership bulkers

www.raytheon-anschuetz.com

Raytheon Anschutz has been awarded a contract to supply its Integrated Bridge System (IBS) to two new bulk carriers to be built for Cyprus based shipping company Intership Navigation, a member of the German Hartmann Group.

The bulkers will be built at New Times Shipyard in Jingjiang, China, with delivery scheduled for August and October 2011.

The new bulkers, each with a capacity of 176,000 dwt, will be equipped with full integrated bridge systems installed under the combined supervision of Raytheon Anschutz Shanghai and Raytec Marine Co, a subsidiary of Intership responsible for the technical service of vessels.

The IBS will include NSC radars with chart radar, anti-clutter and collision avoidance functions, as well as a complete set of sensors and radio stations.

NSC ECDIS with automatic route planning functions will also be integrated, and trackpilots and manual steering control systems are similarly to be included in the IBS.

"The awarded contract results from a satisfying relationship to Intership Navigation, who have chosen our bridge systems also for former projects," commented Sven Dreyer, sales director at Raytheon Anschutz.

Raytheon notes that it has now sold more than 600 Integrated Bridge Systems, with approximately one third of them being delivered for installation at Chinese shipyards.



One third of all new Raytheon IBS systems have been delivered to Chinese shipyards

# New Radar Provides Enhanced Target Detection

www.kelvinhughes.com

Kelvin Hughes has recently launched "Enhanced Target Detection" (ETD) as an enhancement to its MantaDigital™ range of wide-screen radars.

This new facility significantly enhances the display of slow-moving or stationary targets without interfering with the normal radar appearance or operation. ETD, the latest innovation in the MantaDigital™

range provided by Kelvin Hughes, treats stationary and moving returns differently, highlighting the moving ones by displaying them in a different colour.

"We are harnessing modern signal and image processing techniques to give the navigator better information. Employing the latest technology in our MantaDigital™ range has enabled this functionality to be realised," says Spike Hughes, Director of Sales and Marketing at Kelvin Hughes.

ETD combined with the dual PPI mode provided by MantaDigital™ enables the operator to continue using the radar in the normal way with the addition of a simultaneous advanced detection view available on the secondary PPI without cluttering the main display.

"We originally developed the mode for detecting ice but have found it is equally useful for detecting small targets, such as buoys, which might otherwise have only

be seen intermittently or not at all," says Spike Hughes.

"We have also found that navigators appreciate the clarity provided by removing unwanted clutter and by painting moving targets in a different colour. The overall effect on the screen is almost a 3D or embossed view of details such as waves, vessel wakes and coastlines while still maintaining an exceptionally clear picture."

Controls are provided to enable the operator to change the weightings between fixed and moving targets to achieve the best possible picture in varying conditions.



Captain Pieter den Herder of Swalinge Scheepvaart in the Netherlands has been one of the first to trial ETD on his Kelvin Hughes' MantaDigital™ radar and can't praise it highly enough.

"This is the best radar I have ever used, I can tell the difference between the waves and the buoys even in bad weather.

On one occasion passing several buoys in bad weather and I could clearly see on the ETD screen a yacht was moored on a buoy. On the normal radar screen I could only detect one target, the use of ETD provided me with more information and prevented a possible collision."

Detecting buoys is especially important for Captain den Herder as quickly finding the fastest way into the port after dredging makes his business more efficient. "We are making money by using the shortest routes back to port and this radar is making that possible. Navigation is usually very difficult in the West Scheldt in bad weather, but this radar is amazing."

"It is so simple to use because of the colours," says Captain den Herder. "It is very easy to learn how to operate it and everyone who has seen it has been very impressed. I am surprised how easy it is to operate this 'high tech' radar."

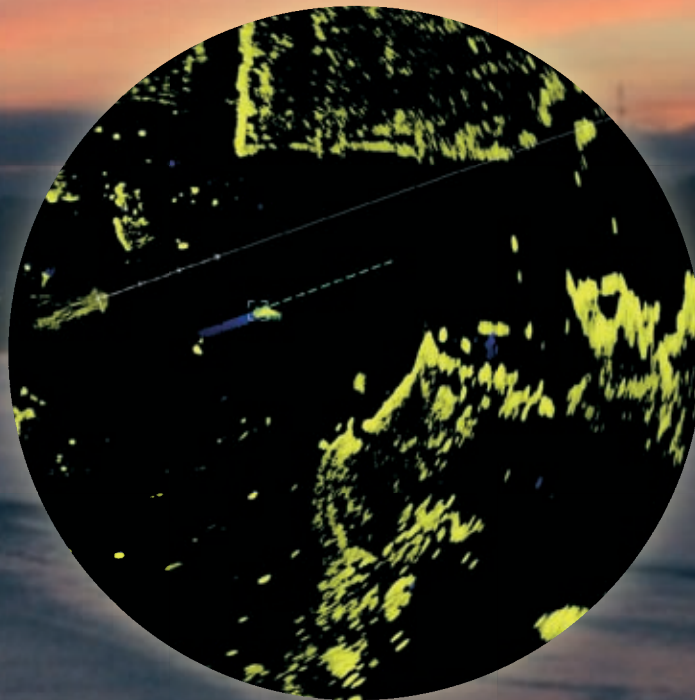
Captain den Herder also finds the two radar windows extremely useful.

"Using the dual radar presentation with one set to a three mile range and the other to the half mile range makes it very easy to navigate because you can see at a glance if you have passed the buoys and still maintain an overall navigation view without the need to keep switching from one range to another."

"Kelvin Hughes' ETD and the solid-state SharpEye™ radar offer the market the ultimate in radar performance and reliability at an affordable cost," commented Spike Hughes.

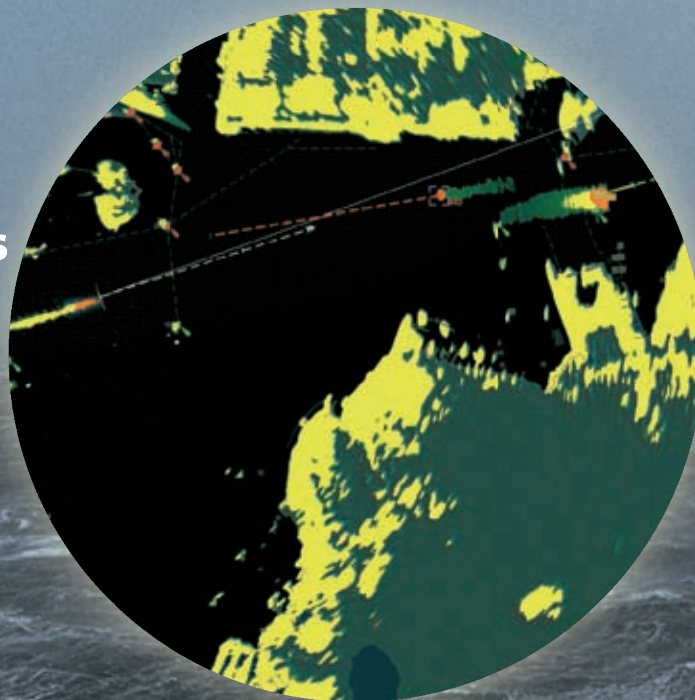
Gothenburg Approach,  
A clear dawn, April 2009

Your Radar might  
get close to doing  
this...



Gothenburg Approach,  
Force 6, September 2009

...but in these conditions  
only a  
**KELVIN HUGHES**  
Radar will do this



**KELVIN HUGHES**  
RADAR REINVENTED

"This is the best radar I have ever used, I can tell the difference between the waves and the buoys even in bad weather. Navigation is usually very difficult in the West Scheldt in bad weather, but this radar is amazing." (Captain Pieter den Herder of Swalinge Scheepvaart)

For more details and a demonstration, email: [radar@kelvinhughes.co.uk](mailto:radar@kelvinhughes.co.uk)  
or call our Sales Hotline on +44 (0) 208 498 1765

# AIS technology installed during ISS spacewalk

www.esa.int

A recent space shuttle mission to the International Space Station (ISS) has brought the European Space Agency's Columbus module a step nearer to beginning an ambitious experiment to track global maritime Automatic Identification System (AIS) traffic from space.

Astronauts Michael Foreman and Randolph Bresnik installed the AIS antenna on the outside of Columbus during a six hour, eight-minute spacewalk, as part of the STS-129 mission at the end of November. This VHF antenna is designed to pick up signals from standard AIS transponders.

The antenna was installed on the Earth-facing starboard side of Columbus, and is connected to a pair of receivers inside.

The installed equipment for the COLAIS (Columbus AIS) system features both a NORAIS and a LUXAIS receiver.

The NORAIS receiver was developed by the Norwegian Defence Research Establishment with the support of Kongsberg Seatex, while the LUXAIS receiver was supplied by LuxSpace.

Once the COLAIS experiment is ready, the receivers will operate alternately, switching every three months. Both receivers were delivered to the ISS by Japan's HTV-1 supply ferry in September 2009.

The internationally mandated AIS system enables port authorities and coast guards to track seagoing traffic, but the required onboard transponders only have a horizontal range of around 74 km.



Astronaut Randolph Bresnik with the unfurled AIS antenna, to be used for experimental ship tracking. Credit: NASA (S129-E-007770)

This is sufficient for coastal tracking or ship-to-ship monitoring, but means that traffic on the open ocean disappears into vast blind spots. AIS signals do, however, reach much further in the vertical direction – all the way up to the 400 km orbit of the ISS.

The aim of this project is to demonstrate space-based ship monitoring techniques using Columbus as a test platform, as a first step towards an operational AIS-monitoring service based on constellations of satellites for worldwide coverage.

The final element needed to begin the two-year COLAIS experiment is 'ERNObox', a prototype computer based around a new generation of ESA-developed processor chips, its name coming from the German for 'modular computer in low Earth orbit'.

"The ERNObox has already flown aboard Columbus as what is known as a SSTO – Space Station Test Objective – from February 2008 to July 2009," said Horst Koenig, Head of ESA's System Engineering section.

"Its original purpose was to assess a new processor and other technologies in the space environment. Following its

return to Earth with STS-127 in July 2009, it was refitted to serve as a data relay for the COLAIS experiment, and will return to the Station once a flight is available, though not earlier than February 2010 depending on

upload constraints for ESA payloads."

The ERNObox has been built by Astrium Space Transportation in Germany. Astrium is also responsible for the overall system integration of COLAIS.

## Strategy changes following McMurdo takeover

www.mcmurdo.co.uk

Following Orolia's successful completion of the acquisition of Kannad and McMurdo over the last three months, forming Orolia's new Positioning Division, the company has announced that a new strategy has been implemented for both units which will change McMurdo's offering to the marine market.

From 1st January 2010 McMurdo's core focus will be on producing emergency location beacons for marine and outdoor markets, meanwhile Kannad's original operation will focus separately on the aviation and tracking sectors.

McMurdo will offer two different ranges of branded products, namely the existing McMurdo range plus the products of its newly branded division Kannad Marine.

McMurdo will continue to support the existing distribution networks of both brands, with McMurdo products to be distributed via the existing McMurdo network and the Kannad Marine products via the existing Kannad network.

"This strategy is intended to bring clear benefits to the customers and users of both the McMurdo and Kannad Marine products. The pairing will enable us to ensure that their important distribution networks are continuously supplied with innovative market leading products," said Jeremy Harrison, president and CEO of McMurdo.

"The product offering will continue to respond to the growing demand for safety products compatible with the opportunities afforded by advancing technologies, and which are compliant with increasing international legislation."



The AIS antenna, prior to installation

## HITT to provide Chinese VTMS

www.hitt.nl

Dutch company HITT reports that it has agreed a deal to supply vessel traffic management system (VTMS) technology to ports in China.

The contract with the Zhejiang Maritime Safety Administration (MSA) includes the modernisation, expansion and new construction of VTMS for the port group at Ningbo, Zhoushan and Hangzhou Bay in China.

As part of the project for the MSA, HITT will provide an ISIS (Integrated

Surveillance Information Services) server to collect and integrate relevant shipping information by linking with new and existing systems within the country.

The system will also offer an internet application with access to real time information on shipping movements.

The deal is reported to have a value of approximately €3.3 million.

The Zhejiang province is located south of Shanghai, with Ningbo an important port for petrochemicals and one of China's major container ports.

## GLONASS added to SkyWave terminals

www.skywave.com

SkyWave Mobile Communications has announced the availability of GLONASS navigation capabilities on its DMR-800L satellite data communication terminal.

The DMR-800L with integrated GLONASS is able to compute its exact location using either or both the GLONASS and GPS positioning systems.

SkyWave says that this dual navigation capability will be useful to fleet owners

who are mandated to use GLONASS but do not want to incur the costs and reliability issues associated with the use of an external GLONASS module.

"The DMR-800L with GLONASS/GPS allows fleet and vessel owners to address current asset tracking and monitoring needs with a low cost, reliable and GLONASS-compliant solution," commented David Sward, vice-president of marketing and business development at SkyWave.

**Japan: The World's Most **Reliable** Market  
for Your Products and Services**

# SEA JAPAN

INTERNATIONAL MARITIME  
EXHIBITION AND CONFERENCE  
21-23 APRIL 2010

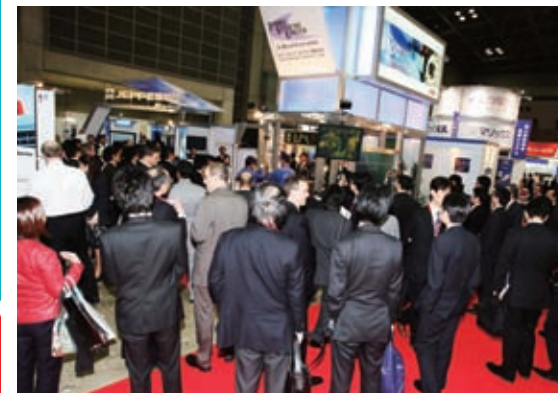
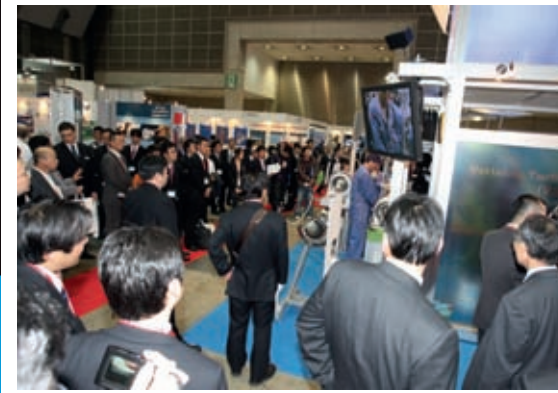
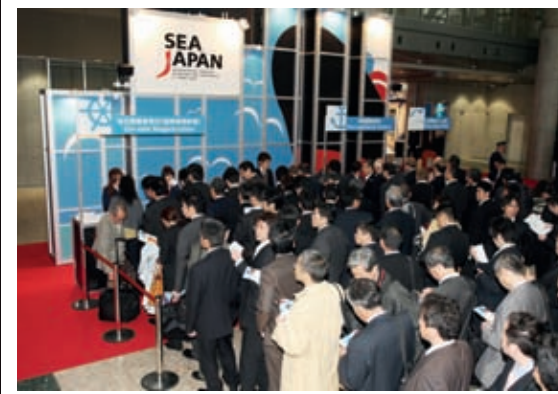
⚓ Tokyo BIG SIGHT Exhibition Center

[www.seajapan.ne.jp](http://www.seajapan.ne.jp)



Organiser UBM Japan Co., Ltd.

Sponsors Ministry of Land, Infrastructure, Transport and Tourism;  
The Japanese Shipowners' Association; Japan Federation of Coastal Shipping Associations;  
The Shipbuilders' Association of Japan; The Cooperative Association of Japan Shipbuilders;  
Japan Ship Exporters' Association; Japan Marine Equipment Association;  
JETRO



Send me details on  Visiting  Advertising & Marketing Opportunities

SJ10-DS-C10

Name: \_\_\_\_\_ Position: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_ Country: \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Product Line & Nature of Business: \_\_\_\_\_

Complete this form and fax back to: +81-3-5296-1018, or mail to:

SEA JAPAN Secretariat Office c/o UBM Japan Co., Ltd.

Kanda 91 Bldg., 1-8-3 Kaji-cho, Chiyoda-ku, Tokyo 101-0044 Japan Tel: +81-3-5296-1020 Fax: +81-3-5296-1018 or e-mail us at: [info@seajapan.ne.jp](mailto:info@seajapan.ne.jp)



UBM

# Loran-C – RIP

**A recent US government decision to discontinue operation of its Loran-C stations over the course of 2010 is sure to lead to the death of eLoran as a credible backup to GPS, writes Dr Andy Norris**

The death knell of the US Loran-C system was announced in the Federal Register on 7 January 2010. The phased decommissioning will commence on 8 February and all stations are expected to cease transmitting by 1 October 2010.

The 2010 budget proposed by the Department of Homeland Security (DHS) and signed by President Obama on 28 October 2009 included the proposal for the termination of Loran subject to "certification from the Commandant of the Coast Guard that it is not needed for navigation and from the Secretary of DHS that it is not needed as a backup for GPS."

Unsurprisingly, this created a storm among those in the US and elsewhere who have been promoting the use of eLoran, an enhancement of Loran-C, as the accepted backup to GPS and other satellite based positioning and timing systems.

Despite the protestations and lobbying, the January announcement has confirmed that the certifications have now been made.

Within the supplementary information of the announcement it is stated that: "Backups to GPS for safety-of-life navigation applications, or other critical applications, can be other radionavigation systems, or operational procedures, or a combination of these systems and procedures."

It goes on to say: "With respect to transportation to include aviation, commercial maritime, rail, and highway, the Department of Transportation has determined that sufficient alternative navigation aids currently exist in the event of a loss of GPS-based services, and therefore Loran currently is not needed as a back-up navigation aid for transportation safety-of-life users."

It does recognise, however, that continued work needs to be undertaken to assess whether a "single, domestic system" is needed as a GPS backup for critical infrastructure applications requiring precise time and frequency, though it categorically states that "the continued active operation of Loran-C is not necessary to advance this evaluation."

## Pros and cons of eLoran

Supporters of eLoran point to a long list of its advantages, which mainly arise because of its totally different architecture to satellite-based positioning systems. It is this independence that is so valued.

In particular, degradation of GNSS position accuracy or service denial because of L-band jamming and interference, satellite and control segment failures, satellite shadowing and freak levels of extraterrestrial radiation, such as from the sun, will all have zero or minimal effect on eLoran performance.

Of course, eLoran can also suffer from signal degradation effects but these will generally be quite independent to those affecting GNSS reception, underlining the real integrity enhancements that eLoran can give.

One marked advantage of Loran-type transmissions is that its low frequency high power signals are more easily detectable than GNSS transmissions and do not rely on a clear line-of sight between the transmitter and receiver. However, accuracy can still be significantly compromised in difficult reception conditions.

Despite these advantages, eLoran remains a generally inferior system to



*Inside one of the 625-ft towers at the Carolina Beach Loran Station - the facility's 650,000-watt radionavigational signals will cease transmission by October 2010*

GNSS in two quite important ways.

Firstly, it has a significantly poorer accuracy to that capable from GNSS and secondly, it cannot be considered to be a global system, even if the US had supported its introduction.

To get useful accuracy, eLoran relies on a set of transmitters, typically spaced at around 1,000 NM, and a complementary set of differential stations, perhaps with a spacing of around 100 NM for coastal navigation purposes. The actual spacing would be influenced by the detail of the coastal terrain.

Using differential stations, a reasonably good accuracy of 10 metres or better has been demonstrated. However, this performance is only obtained by effectively treating eLoran as a local service, far removed in concept from the global capability of GNSS.

Even when the US was expected to continue with Loran, it was likely that many countries would not have wanted to invest in its infrastructure.

In fact, some countries appear to be fundamentally against such investment because of general fears associated with the operation of high power transmitters in populated areas.

With the US decision, it can be expected that global interest is likely to disappear rapidly, despite its currently strong support in some European countries, including the UK.

## Marine use of eLoran

There is no doubt that if eLoran was available over significantly large regions of the globe, then IMO would mandate its use as

part of SOLAS Chapter V. Today, it would help prevent groundings, which still occur when poor bridge teams over-rely on faulty GPS equipment.

It would also help prevent potentially more extensive problems if GPS availability is unexpectedly denied over a large area. To date, this has been a very uncommon and generally brief experience and has probably not led to any accidents.

reckoning or celestial techniques.

Many mariners are proud of their celestial navigation abilities. Indeed, accuracies of about 1NM can be achieved by a skilled person in good conditions.

However, the fact remains that the 'availability' of such fixes can be very poor compared to that of electronically derived positions, simply because conditions of restricted visibility can make the taking of celestial sights impossible over periods of many days.

## A future without eLoran

The US decision to abandon eLoran was based on there being existing alternative solutions available as a backup to GPS.

For instance, in the marine world, radar is already a very effective high availability positioning source, when used in coastal waters. It can offer accuracies of several tens of metres, approaching ten metres when used at shorter ranges.

It is greatly helped where there is good racon coverage but is not restricted to such areas.

In fact, the mandating of some additional facilities could considerably ease the process of position determination by radar. In particular, it is possible to dream up enhanced racon/radar infrastructures that could make this process automatic and have potentially increased accuracy, especially when using solid-state spread-spectrum radars.

Properly implemented, an enhanced radar/racon system could form a very effective alternative for eLoran in coastal waters.

In ocean regions, the use of increasingly effective and automated estimated position techniques is a goal of many, with or without eLoran being available.

It is quite possible that such systems will become a carriage requirement, as part of a future Integrated Navigation System.

Systems may be able to benefit from affordable inertial technology, especially when aided by the ship's gyro. Mid-ocean absolute accuracies measured in a small number of nautical miles are likely to become feasible.

For the SOLAS sector, it is seen that although eLoran would be beneficial, it is certainly not an essential system, simply because there are other ways of improving positional integrity.

The reality is that, now that the US has rejected eLoran, its successful adoption in other regions, including Europe, is in severe doubt. If it was adopted just in a small number of regions, it is extremely difficult to see that IMO would mandate its carriage.

Unfortunately eLoran is well and truly dead, and other work now needs to proceed to enable the goal of improved positional integrity.

DS



*Dr Andy Norris has been well-known in the maritime navigation industry for a number of years. He has spent much of his time managing high-tech navigation companies but now he is working on broader issues within the navigational world, providing both technical and business consultancy to the industry, governmental bodies and maritime organizations. Email: apnorris@globalnet.co.uk*

The Connecticut  
Maritime Association  
Presents

# SHIPPING 2010

North America's Premier International  
Shipping and Trade Conference and Exposition

March 22, 23 & 24, 2010  
Hilton Stamford Hotel  
Stamford, Connecticut

## FOG



### Supporting Organizations:

BIMCO • INTERCARGO • INTERTANKO • The Baltic Exchange • Connecticut Maritime Coalition (CMC) • International Shipping Federation (ISF) • Association of Ship Brokers & Agents (ASBA) • Liberian Shipowners' Council • The Hong Kong Shipowners' Association • International Bunker Industry Association (IBIA) • International Chamber of Shipping (ICS) • Society of Maritime Arbitrators, Inc. (SMA) • Hellenic-American Chamber of Commerce • Norwegian-American Chamber of Commerce • National Association of Maritime Organizations (NAMO) • InterManager • Cyprus-U.S. Chamber of Commerce • Admiralty Committee of the Association of the Bar of the City of New York • Chamber of Shipping of America (CSA) • American Salvage Association (ASA) • The Maritime Industry Foundation • The Maritime Law Association of the United States (MLA) • NYMAR: New York Maritime, Inc. • Women's International Shipping & Trading Association (WISTA) • North American Marine Environment Protection Association (NAMEPA) • The Society of Naval Architects and Marine Engineers (SNAME) • International Bar Association (IBA) • INMEX China 2010

### Media Sponsors:

TradeWinds • Seatrade Communications Ltd. • Fairplay • Lloyd's List • Petrosport • Elaborate Communications • The Journal of Commerce • Shipping Digest • The Maritime Executive • The Sailings Group • Worldoils • Marine Money International • Morgan Marketing & Communications • Marine Log • Maritime Reporter • Digital Ship • Tanker Operator • Maritime Global Net • Professional Mariner • The Baltic • Tanker Shipping & Trade • SustainableShipping.com



Produced by International Marketing Strategies, Inc.

Tel. +1.203.406.0109 ext 3717 • Fax +1.203.406.0110

Email. [conferences@cmaconnect.com](mailto:conferences@cmaconnect.com) • Website. [www.shipping2010.com](http://www.shipping2010.com)

**seven** seas. **one** communication provider.™

# > UNLIMITED USE OF INTERNET AND E-MAIL

## > GLOBAL COVERAGE KU-BAND WITH **SEVSAT™**



### THE SERVICE INCLUDES:

- > 1.0 m KU-band antenna
- > Automatic Satellite Switch with SEVSAT™ Global
- > Vessel Tracker and MySEVSAT™
- > 24/7 Customer Support
- > Voice service
- > Crew Call
- > Below deck equipment



GLOBAL COVERAGE KU-BAND FROM SHIP EQUIP

CALL US NOW TO FIND OUT MORE OR ORDER DIRECTLY AT [WWW.SHIP-EQUIP.COM](http://WWW.SHIP-EQUIP.COM)

[WWW.SHIP-EQUIP.COM](http://WWW.SHIP-EQUIP.COM) • TEL: +47 70 17 24 00 • E-MAIL: [SALES@SHIP-EQUIP.COM](mailto:SALES@SHIP-EQUIP.COM)

ÅLESUND

OSLO

SINGAPORE

HOUSTON

SEATTLE

LONDON

REYKJAVIK