Digital Ship
www.thedigitalship.com
January/ February 2012

Inmarsat shake-up removes Stratos and Ship Equip brands

Incoming Inmarsat CEO Rupert Pearce has overseen a major restructuring at the company, which will include the removal of the Stratos and Ship Equip brands – with those companies henceforth to operate under the Inmarsat name

Inmarsat has announced that, as of 1 January 2012, its Stratos Global and Ship Equip companies have ceased to operate under their own brands and will now trade under the Inmarsat name.

The restructuring of the company is being overseen by incoming Inmarsat CEO Rupert Pearce, who took over the role from Andrew Sukawaty at the beginning of the year.

Mr Pearce was announced as the incoming CEO last summer, and was already serving as senior vice president of Inmarsat Enterprises and Inmarsat's group general counsel. Mr Sukawaty has moved into the position of executive chairman.

The rebranding of Stratos and Ship Equip will see sales and marketing for these businesses, and the group as a whole, aligned into four new business units, one of which will be Inmarsat Maritime.

Inmarsat Maritime and the other three units, Inmarsat Government US, Inmarsat Government Global and Inmarsat Enterprise, will join a Commercial and Sales Support division to form Inmarsat Solutions, which will become the sales, marketing and delivery arm of the Inmarsat group.

Inmarsat Solutions will be headed by Stratos CEO Jim Parm, as president. Frank Coles, previously CEO of Globe Wireless before joining Inmarsat's Global Xpress team earlier this year, will act as the new president of Inmarsat Maritime.

Direct sales

This restructuring move, particularly the decision to bring Stratos 'in-house', has raised questions as to whether this is an attempt by Inmarsat to move towards a fully direct sales channel, rather than the indirect sales via channel partners that currently makes up the majority of its MSS business.

However, the company has stated in its communications to these partners that it expects to continue using the indirect channel, and that its strategy is to have a predominantly indirect business, operating via independent channel partners.

"Inmarsat has been delivering mission-critical satellite communications services for customers who operate beyond the reach of terrestrial networks for more than three decades," said Rupert Pearce, CEO, Inmarsat.

"We have led the mobile satellite services market as a wholesale organisation. This restructure will build on that by bringing us closer to our partners and customers, making us more responsive to their needs and more efficient in the delivery of our services."

'We are committed to continue working with our independent channel partners' – Rupert Pearce, Inmarsat

"It streamlines our decision-making process and focuses our activities on the primary markets we serve. It enables us to fully leverage our end-to-end capability – from managing the satellite network, to delivering solutions to end users through our highly-motivated channel partners who add global reach

continued on page 2

IN THIS ISSUE

Digital Ship

Vol 12 No 5

Digital Ship Limited
2nd Floor,
8 Baltic Street East
London EC1Y 0UP, U.K.
www.thedigitalship.com

PUBLISHER
Stuart Fryer

EDITOR
Rob O'Dwyer: Tel: +44 (0)20 7017 3410
email: odwyer@thedigitalship.com

DEPUTY EDITOR
Julie Ann Chan. Tel: +44 (0) 20 7017 3414
email: julie@thedigitalship.com

CONFERENCE PRODUCER
Cathy Hodge: Tel +44 (0) 20 7253 2700
email: cathy@thedigitalship.com

ADVERTISING
Ria Kontogeorgou: Tel: +44 (0)20 7017 3401
email: ria@thedigitalship.com

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

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

CONSULTANT WRITER
Dr Andy Norris (navigation)
apnorris@globalnet.co.uk

DIGITAL SHIP SUBSCRIPTIONS
GBP £150 per year for 10 issues
Subscribe online at
www.thedigitalship.com
or contact Stephan Venter on
venter@thedigitalship.com,
tel +44 (0)20 7017 3407

UPCOMING CONFERENCES

DIGITAL SHIP HAMBURG
Magnushall
1-2 February 2012

DIGITAL SHIP SCANDINAVIA
Scandic Hotel Bergen City
28-29 February 2012

DIGITAL SHIP CYPRUS
St Raphael Resort, Limassol
27-29 March 2012

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

continued from page 1

and value-added services to our core service proposition."

"Our goal is to grow Inmarsat's overall business through both direct and indirect channels. We are committed to continue working with our high-performing independent channel partners who can differentiate themselves with sector knowledge and experience."

"By minimising the overlap between the Inmarsat businesses, we can better target our investment into market development activities that benefit our entire distribution channel."

New GX partner

In related news, Inmarsat has also announced that Intellian Technologies has been chosen as the latest manufacturer for marine stabilised antennas for its forthcoming Global Xpress (GX) service.

Intellian will design and manufacture a 60cm Ka-band GX antenna and a 1m Ku-band antenna that can be converted to Global Xpress when the service starts in 2013.

Both antennas will incorporate the GX core module currently under development by iDirect.

"Intellian has built a strong position in maritime satcoms hardware, and has invested heavily in their R&D, engineering and global distribution," said Frank Coles, newly appointed president of Inmarsat Maritime.

"Their commitment to produce both a Ka-band GX antenna and a Ku-to-GX antenna supports our vision of providing a pathway today to the higher performance of Global Xpress in the near future." DS

'Intellian has built a strong position in maritime satcoms hardware' – Frank Coles, Inmarsat

Odfjell to install VSAT on 40 vessels

www.marlink.com

Marlink reports that is to supply WaveCall VSAT systems for installation aboard 40 vessels as part of a new agreement with Odfjell Management.

Having worked with Odfjell for several years supplying MSS on-demand services, Marlink's renewed contract represents a new move to VSAT for the chemical tanker operator.

"We have been working with Marlink for many years and throughout this time the company has demonstrated exceptional commitment to offering us satellite communications solutions that satisfy our evolving needs," said Knut Fredriksen, vice president of technology management, Odfjell Management.

Odfjell's installation schedule aimed to have nine vessels fitted by the end of 2011, and the remainder in 2012

"Marlink's WaveCall solution will ensure the provision of reliable and high quality bandwidth aboard for continuous communication between our vessels and offices ashore, which has become crucial to the successful operation of our business."

The new contract follows a workshop with Odfjell Management at Marlink's Eik Teleport, where a customised service package was developed to meet Odfjell's specific requirements.

Installations were scheduled on nine vessels in late 2011, with the remaining installations to be carried out in 2012.

Each vessel will have access to four simultaneous voice lines and three LANs for crew and admin purposes, including internet web access and crew calling functionality.

The vessels will also be equipped with FleetBroadband 500 terminals, supplied by Marlink.

"There is no one-size-fits-all communications solution, so through maintaining an open dialogue with our customers such as Odfjell, we are able to evaluate their requirements and package systems and services together to best match their needs," said Tore Morten Olsen, CEO, Marlink.

Software and communications releases from Boatracs

www.boatracs.com

Boatracs has launched two new products, a fleet management software platform called Boatracs BTConnect and a tri-mode data communications system from Qualcomm, the Mobile Computing Platform 200 Series, or MCP200.

BTConnect is a web-based solution that integrates messaging and mapping functionality to provide access to fleet-wide data. It includes features such as route planning, custom landmarks and global map layers.

A beta programme for BTConnect was concluded in late 2011, prompting the company to introduce the system.

"Over a dozen of our customers participated in the beta programme representing fleet sizes from 1 to 100 vessels," said Irwin Rodrigues, president and CEO of Boatracs.

"The feedback was overwhelmingly positive, with specific praise for not only the ease of access from mobile devices, but also the ease of managing vessels from a display that combines mapping and messaging in a very efficient and powerful manner."

"We are in the process of migrating all of the beta participants to BTConnect now, and have already signed on new customers to the product."

The MCP200 is a multimode data communications system that delivers two-way messaging and positioning through satellite, cellular and Wi-Fi.

Using either a slide-out keyboard or a colour touch screen, the MCP200 has multiple data ports to connect peripherals such as a compact scanner to send documents to shore.

Boatracs says that the new system offers higher output at faster speeds for the same price as previous versions of Qualcomm's narrowband satellite data communications systems.

"Boatracs is excited to offer these products to the maritime industry, expanding our portfolio of turnkey solutions that integrate hardware, software and airtime for customers," said Mr Rodrigues.

"With additional services scheduled for release in early 2012 such as AIS integration and global broadband satellite coverage, Boatracs is poised to deliver a flexible suite of maritime communications solutions to fit any customer's needs."

THOMAS GUNN navigation services ltd.

YOUR PERFECT PARTNER FOR THE TRANSITION TO DIGITAL NAVIGATION

Total ECDIS Solution

NAVECDIS

Fully Type Approved ECDIS

- 24" widescreen monitors
- Solid state hard drives
- Advanced route planning and passage planning
- Remote diagnostics for rapid & low-cost support
- Option for radar video overlay
- Modular design for easy installation
- CBT (computer based training) module

ADMIRALTY

ADMIRALTY VECTOR CHART SERVICE

- The world's most comprehensive ENC service
- One single, efficient chart system
- Total flexibility to save you time and money
- Always up to date - updates via e-mail or web service
- Admiralty Information Overlay for T & P corrections
- Quality, reliability and integrity
- ECDIS compatibility to meet latest IMO requirements

Voyager

Voyager Digital Update Service

- Compression technology achieving 80% file reduction
- Product catalogue management system
- Admiralty BA NTM's and tracings service
- Admiralty Digital Chart and permit updates
- Admiralty Digital Publication updates
- Weekly UK M-Notices
- Updates via web service or email
- No special equipment required

Total Navigation Solutions

ADMIRALTY

INTERNATIONAL CHART AGENT

www.thomasgunn.com | +44 (0)1224 595045 | info@thomasgunn.com

Harren & Partner to implement Courier Compressor

www.seasecure.net

Harren & Partner Ship Management in Germany is to install the Courier Compressor system from SeaSecure as part of its roll-out of FleetBroadband services across its fleet.

SeaSecure says that its system will be used to reduce satellite traffic and airtime costs through the use of compression technology.

The Courier Compressor is a stand alone software that can compress files that are already in a 'compressed' format, such as PDF documents and JPG images. The files can be sent as e-mails directly from the application.

The company says that the software preserves text legibility while maintaining visual and colour quality. File formats like JPG can be compressed further by up to 95 per cent, and PDF documents up to 80 per cent.

Harren & Partner will also install the software at its offices, to minimise traffic costs associated with sending e-mails from shore to the vessels.

Harren & Partner is rolling out FleetBroadband across its fleet, and will use the SeaSecure system to help manage the link

Thuraya IP adds Relay Mode

www.thuraya.com

Thuraya has announced that its 384 kbps Thuraya IP satellite broadband system has been upgraded to include a new Relay Mode functionality.

The Relay Mode will allow users of Thuraya IP to run a range of applications which require a public IP address on the terminal equipment attached to the IP device.

"We have set the bar with our Thuraya IP solution as the world's smallest satellite broadband solution to support 384 kbps streaming," said Thuraya's director of product management, Rashid Baba.

"With the new Relay Mode, Thuraya IP will continue to provide a superior high-speed data experience and flexibility for our consumer base which relies on Thuraya IP for critical communications."

"Following this upgrade to Thuraya IP, any terminal equipment used with it can now obtain a dynamic or static global public IP address, allowing for higher operational efficiency and compatibility with all industry-specific applications."

Satcom management from GMN

www.redportglobal.com

Global Marine Networks (GMN) has launched RedPort Global, a satellite network management system for maritime and offshore satellite broadband users and distributors.

The company says that RedPort Global includes services that can save up to 80 per cent of satellite airtime using data compression, caching and control, as well as prepaid VoIP, e-mail and internet, least cost routing, firewall filtering and remote control.

"GMN has long been a leader in satellite data services," said Dr Luis Soltero, president and CTO of GMN.

"Now, with the launch of RedPort Global, we are offering satellite broadband users important new data services while building on the foundation of our popular webXaccelerator satellite routers and XGate satellite data products."

Concurrent with this new launch GMN is also launching two new webXaccelerator (wXa) satellite routers, which can work in tandem with RedPort Global services.

The original webXaccelerator satellite router was launched in October 2010, and GMN says it has received orders for over 700 units so far.

Combined Ku/L-band market continues to expand

www.speedcast.com

SpeedCast has become the latest company to introduce a maritime package integrating Ku-band VSAT and L-band services for a fixed monthly fee, with the launch of SeaCast SIGMA.

SpeedCast says that SeaCast SIGMA will combine unlimited broadband VSAT connectivity with a back-up FleetBroadband to be used in case the primary is unavailable, or to troubleshoot and restore the primary connection in the event of an issue.

Three different packages are available, starting from an entry price of $2,800 per month, ranging from an unlimited 256 kbps connection up to an unlimited 1 Mbps service.

These packages include all required VSAT and L-band equipment (both above and below deck), as well as back-up FleetBroadband airtime, for the fixed monthly price. All packages are for a fixed period of 60 months.

Value added services will be included, delivered from the 'cloud' and providing link acceleration, WAN optimisation, vessel tracking, web filtering, voice calls and, for the IT manager, an online monitoring and reporting portal.

"SpeedCast was the first company to introduce a global Ku-band maritime service, which allowed seamless auto beam switching between many different satellites and across many maritime VSATs from different manufacturers, delivering unparalleled coverage and performance for our global maritime customers," said Nick Dukakis, VP of maritime and offshore, SpeedCast.

"In addition SpeedCast was one of the first companies in maritime back in 2007 to realise that the main primary link for most vessels would be Ku-band VSAT with a secondary back-up system dependent on an L-band service. Now many of our competitors have adopted a similar model."

"SeaCast SIGMA represents the evolution of our maritime services and experience in the marketplace over the last four years, and we will continue to roll out more innovative products and services in future."

The new service is available via SpeedCast's global network of certified partners.

Astrium completes Vizada acquisition

www.astrium.eads.net

EADS Astrium has completed its acquisition of Vizada, after receiving the necessary regulatory approvals.

Vizada will be integrated into Astrium Services following the announcement, as part of the €673 million deal between the companies.

"We are happy to welcome Vizada into the EADS Group, which concludes a successful year for us in terms of acquisitions," said Marwan Lahoud, head of EADS corporate strategy and marketing organisation.

"In 2011, we have significantly strengthened our services portfolio, which is a key focus of our acquisition strategy."

Vizada comprises Vizada Americas, Vizada Networks, Vizada EMEA & AsiaPacific and Marlink, with more than 700 employees serving 200,000 end-customers in maritime and other sectors both directly and through a network of 400 service provider partners.

The addition of Vizada will grow the Astrium Services workforce to include over 3,200 employees, under four business lines: Telecom Commercial, Telecom Governmental, Secure Satcom Systems, and GEO-Information Services.

'We have significantly strengthened our services portfolio' – Marwan Lahoud, EADS

SOAP access to INFINITY

www.navarino.gr

Navarino reports that it has added a 'SOAP & XML' feature to its INFINITY satcom management system, which will now be available to all users.

SOAP (Simple Object Access Protocol) allows any internet-enabled system operated by the user company to exchange structured information with the vessel via the INFINITY system.

Due to the nature of this protocol and its language, SOAP is totally independent and is compatible with any programming model.

Navarino says that this could be particularly useful in the management of crew welfare-related transactions from shore, by linking crew management systems with crew internet accounts.

Each time a new crewmember joins a vessel, a new crew internet and calling account is created with specific quotas, depending on their rank. Any consumption of satcom units, such as with crew internet PINs being reloaded, would then be automatically charged to the company's payroll system without the need for any human intervention.

More services.
More communication. More possibilities....
More than a box!

A bandwidth management and optimization solution
specifically designed and developed
to increase the efficiency of your vessels' communications,
reduce the costs of both business and crew communication
and offer more crew welfare options.
Flexibility, Security, Savings...
Infinity Solutions for infinite needs!

Distributed by navarino
For **more** information visit: **www.navarinotelecom.com**

Thrane & Thrane
CERTIFIED PARTNER

INFINITY
MARITIME COMMUNICATION SOLUTIONS

Cloud computing for maritime

Everybody's talking about it, but not everybody is doing it – 'cloud computing' is a major point of discussion for modern IT managers, but is yet to take off in the maritime industry. Alexandros Charvalias, Deloitte, explains some of the potential benefits and challenges of using cloud services

'Cloud computing' is undoubtedly one of the current 'hot topics' in modern IT, and the concept is certainly an attractive one – the ability to access your data and applications anywhere, on any device, at low costs and with expert support.

This next wave of computing, untethering the traditional chains between the user and the machine on their desk, aims to make working with information a more mobile and flexible experience.

Technology giants like Apple and Microsoft have thrown their weight behind this vision of the future, applying their resources to systems like iCloud and Office 365 respectively, and countless other IT providers are doing their best to latch on to this wave with a variety of different cloud services.

Despite this growing trend, in the maritime industry cloud services have been slow to gain traction.

The reasons behind this are various – the specialised nature of maritime software systems, the integration of expensive satellite communications links into companies' infrastructure, and the sometimes conservative nature of vessel operators to name but a few.

However, given the continued movement in this direction in mainstream technology, shipping companies will need to pay attention and examine the cloud services on offer as the options expand.

Knowing some of the most important benefits and challenges associated with the technology will be critical, particularly the one key aspect of cloud computing that is currently foremost in the mind of business users – security.

As Alexandros Charvalias, assistant manager, assurance and enterprise risk services, Deloitte, explains, there are a large number of potential pitfalls waiting in the cloud for the unsuspecting user.

"As this is a trendy topic, there are a lot of surveys going around concerning the maturity of the market and the potential issues with cloud computing. Most of the surveys have similar results – security is the primary concern. This is followed by issues of data control and performance issues," he said.

"Cloud computing simply means that data that you would normally have within the enterprise boundaries hosted behind a firewall are now outside that firewall."

"From a security perspective you have at least two connections involved – one from the enterprise to the cloud service provider and another from the cloud service provider to the data storage location. So in a sense you are doubling the risk of having the data in transit."

As Mr Charvalias points out, encryption can be a solution in securing moving data, though this can be more problematic if you are part of a system that includes an application as a service.

In that case you may need to process your data on the service provider's side – and this may not be possible with encrypted data.

Of course, the issue of data transit presumes that a connection is available to transport the data – and the availability of that connection to the service is not guaranteed.

"Unlike pulling out your laptop or desktop and having access to your data, when your data is in the cloud you need the internet to access it," said Mr Charvalias.

"This means that if you have internet connectivity issues you won't have availability. So how can your cloud service provider make sure that you have high availability, or your own internet service provider?"

"There is also the possibility that the demand for the cloud services could actually rise so fast that the provider's architecture cannot support it. That could lead to availability issues or, even worse, data integrity issues if updates are not being completed properly."

Data in the cloud

Presuming that you've managed to make a secure connection to the cloud, and initiated your required flow of information, you will then have to deal with the further risks and threats that are an inherent part of operating in the virtual world.

One of the most immediate of these is the possibility of a cyber attack on the IT architecture that you are employing.

"The shipping industry is not traditionally a target, but the cloud is a multi-tenant environment, so you have multiple companies that are utilising the same infrastructure. If another tenant is a target then you can get targeted with them since you are within the same infrastructure," said Mr Charvalias.

"More than that, the service providers themselves are actually very good targets. There is one example I know of a company that was a cloud services provider that was being hit with denial of service attacks, and the cyber criminals requested money to stop the attacks."

"For the user, that would mean that until the service provider pays the money or finds another solution you will not have high availability of the service."

Then there is the further issue of data back-up, which is taken out of your own hands in the cloud, and also the jurisdictional data privacy issues that working in a virtual world can create.

"It's more or less the same as any outsourcing, you need to make sure that the data that you have sent to the cloud are being backed up, at all the server farms and all of the provider's locations across the globe, in the same manner that you would do it internally," said Mr Charvalias.

"And you want it done in a manner according to the laws and regulations that apply to you. Governance and compliance are important. There are a number of different types of legislation that are relevant to shipping, but how can you be sure that the cloud services provider is actually fulfilling those requirements, and how can you monitor them?"

"Given the fact that this technology is geographically boundless, your data can be stored in various locations around the globe. How can you be sure that the provider has enough controls in place to comply with data transfer rules in different regions, like the Data Protection Act or other requirements?"

Data ownership

One thing that can be of concern to companies in moving data and services out of the office and into the cloud is the potential problems of ownership – once your data is in the possession of an outside entity it will obviously be much harder to retain control of how that data is managed.

Mr Charvalias points to data disposal as one potential issue that could be difficult to manage to your satisfaction.

"How can you be sure that the data you deleted have actually been deleted, and that someone in the cloud hasn't copied it or archived it or something like that? If you don't have access to the processes and tools that the cloud service provider is using to perform that disposal it's hard to be sure," he noted.

"If you subscribe to a service provider and start performing data entry and processing at that provider – who owns the data? You would normally say 'I do', but that is not always the case."

"There have been cases of service providers selling data to third parties to subsidise costs. Perhaps not in full form, maybe as statistics or anonymised data or just a portion of it, but this is an issue that needs to be considered in any contract you make with the providers."

Similar issues also apply to removing yourself from the cloud service once you become a user, and extracting all of your information from the virtual domain.

"Let's say you have transferred some services to the cloud, and you are happy for a while, but after some time you decide it's not working for you," said Mr Charvalias.

"Are you happy to pay to get your data back, either in-house or to another cloud provider? How open is the architecture of the provider in supporting extraction of your data, and how willing are they to help you at the point where your relationship is already broken?"

"There was a case where there was a US company and it cost them tens of thousands of dollars to build custom software to extract the data in a usable form, simply because the provider didn't have a very open architecture in the applications and wasn't very cooperative."

Even if the cloud services provider can be trusted not to intentionally use your data in ways that you had not intended, the danger still remains that an unintentional or accidental leak could occur.

"This is a multi-tenant environment, so that might also mean that another tenant might get unauthorised access to your data, either through erroneous configuration or because other tenants attack you," said Mr Charvalias.

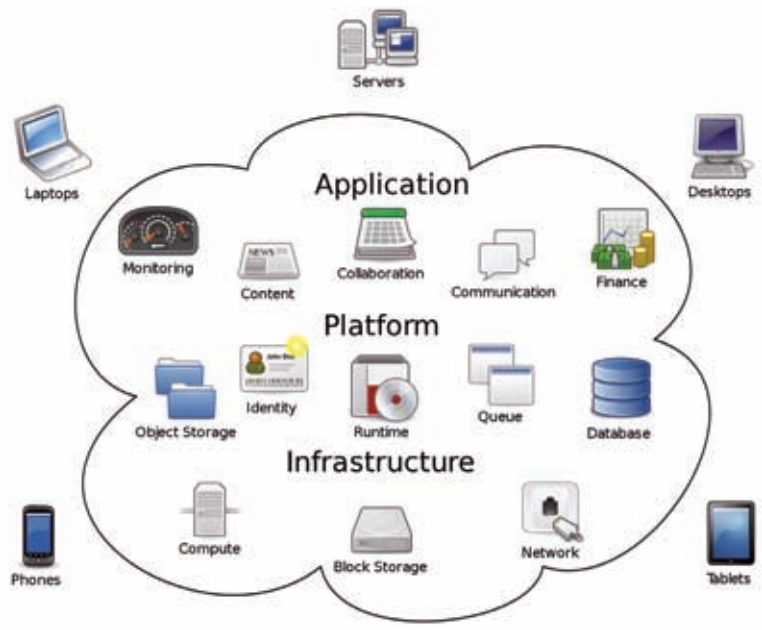
"As an example, a company that was offering e-mail services and address book services was a victim of erroneous configuration of their cloud service, and this opened up the address book of the whole client list to all of the clients. It took them two hours to sort it out – and two hours is enough to be a disaster."

"A security incident with one tenant can spill over to other tenants, and that raises questions about who is liable. Is it the service provider, is it the other tenant? You don't have any contractual agreement with the other tenant so it will be difficult to sort out."

"If an authority in another country decides to seize a server because of another customer in the cloud, your data might also be on the same physical server and that would mean that your data was seized as well. That could lead to data loss or disclosure to other parties."

Joining the cloud – recommendations

These tales of cyber attacks and data theft may seem like enough to completely put a



Connecting to 'cloud' services can create a new level of flexibility in how you can access and work with your data

Onboard Online

s@tGate

Satellite internet services

- Crew pre-paid internet access and B2B post-paid
- Data compression and caching
- Remote and onboard management via a user friendly web interface
- One rate plan for business and crew
- No hub is required at customers' premises
- 24/7 Customer Support

otesat _maritel
MEMBER OF OTE GROUP

Keeping you in touch. Globally

Tel.: +30 210 4071111 • Fax: +30 210 4071110
e-mail: customer_care@otesat-maritel.com, marketing@otesat-maritel.com • www.otesat-maritel.com

shipping company IT manager off the idea of moving to a cloud based infrastructure, but Mr Charvalias insists that, while these issues exist, there are still benefits to be gained from using this kind of technology.

"There are a lot of challenges, they are not unsurpassable but they are challenges," he said.

"Does that mean that it is not a good idea? No, but we need to identify and take into account the associated risks, understand those risks, and mitigate them to a tolerable level."

The first recommendation Mr Charvalias makes is to carry out a thorough risk assessment before you start looking at the cloud services available to you.

"The level of detail of that assessment is relevant to the importance of the data that you are thinking about transferring to the cloud," he said

"This means that, firstly, you need to have a process in place to identify the importance of your data throughout its lifecycle – from creation to processing, storage, back-up and, eventually, disposal."

After deciding on the issues that are most important to you with regard to your data security, it is important to then discuss these specific aspects of the service with your potential providers.

"You need to have some type of security questionnaire, which you should share with the potential providers," said Mr Charvalias.

"Many providers already have such questionnaires at their sites, and you should take that into account when looking for a provider. There are even generic templates for questionnaires like that available from security organisations, which you can use as a basis for this."

Lastly, make sure that you examine, and then modify the contract terms and conditions that are offered to suit your own particular circumstances.

"I know this might come as a shock, but those terms are there to protect the provider, not you! You need to change them, or make sure, at least, that your risks are covered in the contract," said Mr Charvalias.

"This means looking at detailed service level agreements, and how these agreements will be monitored. Look at the confidentiality clauses, in case you want to get into the system and be able to see what is happening yourself."

"Have a detailed definition of responsibilities – who has ownership of the data, what are the rights and obligations of each party, and who is liable in the event of a security incident."

While these steps may not eliminate all of the threats that are out there, following advice like this can at least help to minimise the potential for problems with cloud services. For Mr Charvalias, that can mean that the company can begin to fully explore the potential of this technology to improve its business.

"Doing these things can help you to manage the process and get the benefits of being in the cloud, without exposing yourself to extreme risk," he said. DS

This article has been adapted from a presentation given at the Digital Ship Athens 2011 conference

Emergency response capabilities on Iridium satphone

www.iridium.com

Iridium has added an emergency response functionality to its Iridium Extreme satellite phone, through a partnership with GEOS.

The GEOS service has been integrated into the SOS button on the Iridium Extreme. Pressing the SOS button automatically dials the GEOS emergency response centre, providing a connection to a live support representative.

GEOS can then notify Response Search and Rescue (SAR) authorities through its International Emergency Response Coordination Center (IERCC) in Houston, Texas.

The IERCC has translation capabilities for up to 200 languages, and has coordinated thousands of responses in more than 100 countries since 2007.

Standard usage charges apply for the emergency phone call, or for SMS or location messages sent.

"The GEOS service is one of the many new innovations we are delivering to partners," said Joel Thompson, vice president, product management, Iridium.

"Iridium worked with a select group of portal providers who developed location tracking and messaging services for the launch of the Iridium Extreme. With the launch of the GEOS Emergency Response service, Iridium Extreme customers now have several options to manage their communications during an emergency situation."

Pressing the SOS button can provide a direct connection to a GEOS emergency response centre

"Since the SOS button is programmable, customers have the ability to use the GEOS service if their organisation does not offer such a service. We wanted to ensure that anyone using the most rugged satellite phone on the planet had an option to reach a highly trained professional in an emergency situation."

Iridium Extreme customers must register at www.geosalliance.com/iridium to initiate the emergency response service.

Globalstar satellite launch success

www.globalstar.com

Globalstar has successfully launched six new second-generation satellites, from the Baikonur Cosmodrome in Kazakhstan.

The spacecraft were finally launched on December 28, 2011, using the Soyuz-Fregat version of the Soyuz launch vehicle, after a number of delays had pushed back previous scheduled dates. Launch services provider Arianespace confirmed that the upper stage accurately injected the six second-generation satellites into the targeted low earth orbit of approximately 920 km.

Globalstar reports that all six satellites were successfully acquired following separation of the Fregat Upper Stage and release from the satellite dispenser, and that it has initiated satellite in-orbit testing with all six spacecraft operating normally.

"It is with great pleasure that we announce the successful third launch and continued deployment of our second-generation constellation," said Tony Navarra, president of global operations for Globalstar.

"We are now only one launch away from completing our four second-generation satellite launches and we look forward to the future services our new constellation will support. With these six new satellites now safely in orbit, we once again congratulate and applaud all of our Globalstar employees world-wide and thank launch provider Arianespace as well as our satellite contractor Thales Alenia Space for this launch success."

Globalstar signed a contract with satellite manufacturer Thales Alenia Space in late 2006 for the design, manufacture and delivery of its second-generation constellation satellites. A total of four launches of six satellites each are being conducted by launch services provider Arianespace.

The first launch was conducted in October 2010 and the second launch was completed in July of 2011.

The new satellites are designed to last for 15 years, twice the lifespan of Globalstar's first generation satellites.

The third launch of Globalstar's network of second generation satellites was successfully completed at the end of 2011. Photo: Roscosmos

KVH®

KVH® INDUSTRIES
MINI-VSAT BROADBAND℠

What broadband at sea was meant to be℠ – TracPhone® V7.

Dramatically cut your airtime costs and improve your ship's operations with the world's largest maritime VSAT network, **KVH's mini-VSAT Broadband℠** – the most affordable service for broadband Internet, e-mail, and telephone!

"In today's competitive shipping market, our ships, charterers and fleet managers require **secure and reliable IT networks** to support **critical business processes**. It is also equally important to **improve crew welfare** in order to attract and retain skilled seafarers. **By choosing KVH, we are gaining an affordable, comprehensive solution that brings together proven hardware, a global network, and fully integrated network management and crew welfare solutions that will support our needs for years to come.**"

– Rob Frenks, Group ICT Manager; Vroon B.V.

Fast, low-cost Internet at sea –
Rely on broadband Internet with speeds as fast as 2 Mbps down and 1 Mbps up while saving 85% or more vs. other solutions.

Crystal-clear telephone calls –
Make calls whenever and wherever you want using either of the two lines of integrated voice service optimised for maritime customers or KVH's crew calling solution.

Easy to install and setup –
ViaSat's exclusive ArcLight® spread spectrum technology enables a small 60 cm antenna with dramatically superior performance, easy installation and activation in as little as 1 day!

Find out how KVH TracPhone V7 can change your business at:

www.kvh.com/digitalship

QUALITY CERTIFIED SYSTEM ISO 9001

NMEA 2010 INDUSTRY AWARD – TRACPHONE V7 MARINE COMMUNICATIONS

KVH INDUSTRIES WORLDWIDE

World HQ: United States | info@kvh.com
+1 401.847.3327

EMEA HQ: Denmark | info@emea.kvh.com
+45 45 160 180

Asia-Pacific HQ: Singapore | info@apac.kvh.com
+65 6513 0290

Steamships Shipping to install Marine Software

www.marinesoftware.co.uk

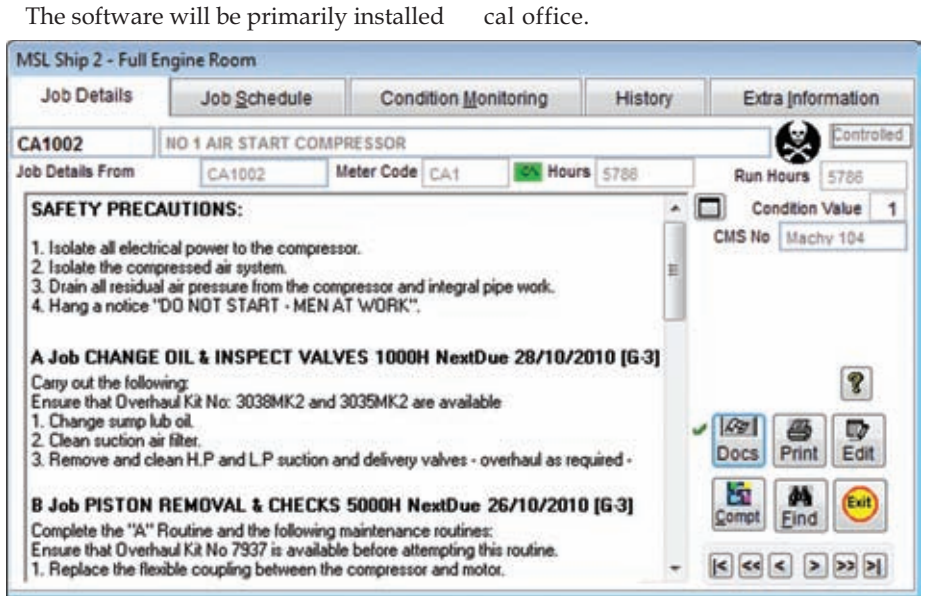
Steamships Shipping in Papua New Guinea is to install the MPM - Marine Planned Maintenance and MSK - Marine Storekeeper software from UK company Marine Software for the control and management of 13 vessels.

Steamships Shipping currently operates a range of multi-purpose cargo vessels ranging from 400 to 6000 dwt, including tugs, landing craft and an environmental research vessel.

The software will be primarily installed on three of its larger vessels, namely Hiri Chief, Obo Chief and Kiunga Chief, with the remaining vessels being operated ashore in 'Master' mode within the central fleet office software.

This type of configuration offered the company a greater degree of operational flexibility, as there was no requirement to install physical software onboard the smaller vessels.

All software was installed during a recent Marine Software training visit to Steamships' Port Moresby technical office.



Steamships will implement the software system for its 13 vessels

PortVision introduces software package

www.portvision.com

PortVision has introduced its SmartOps Fleet Management System, which builds on the company's AIS-based vessel-tracking system to offer an enterprise resource management application.

One feature of the new system is the PortVision Activity Logger (PAL), which is installed in the wheelhouse of each ship.

Customers can use the SmartOps touch-screen display or implement the PAL on an existing PC to record events and delays while capturing all necessary information required for invoicing and reporting.

All PAL data is shared with the fleet operator's traffic department to ensure that users are provided with accurate information. The PAL also supports two-way text messaging to-and-from each vessel.

An invoicing module is included, which supports rules dictating how freight time, demurrage and pass-through services are billed to the customer. Users can incorporate industry-standard demurrage, maintenance and delay criteria into each invoice, along with Waterway taxes and other pass-through expenses.

Additionally, users can modify invoices to meet customer-specific requirements, as needed.

All communications between the wheelhouse and shore-side teams are handled using the PortVision TriMode system, which combines AIS, cellular and satellite communications with least cost routing.

"SmartOps enables fleet owners and operators to increase revenue, reduce costs and create tighter and more efficient customer relationships," said Dean Rosenberg, PortVision chief executive officer.

"It is the only system tailored to the specific business processes of liquid cargo marine transportation, and incorporates valuable best practices for improving productivity and efficiency while eliminating paper, reducing errors and minimising labour."

"Perhaps most importantly, SmartOps enables unit tow fleet operators to collaborate with their customers not only on traffic updates and other real-time logistics, but also on complex invoicing and regulatory reporting so they can speed approvals while minimising discrepancies and distractions associated with billing and compliance requirements."

The system is available now including fleet operations management, with personnel and work management modules to follow later in 2012.

SpecTec launches AMOS Replicator

www.spectec.net

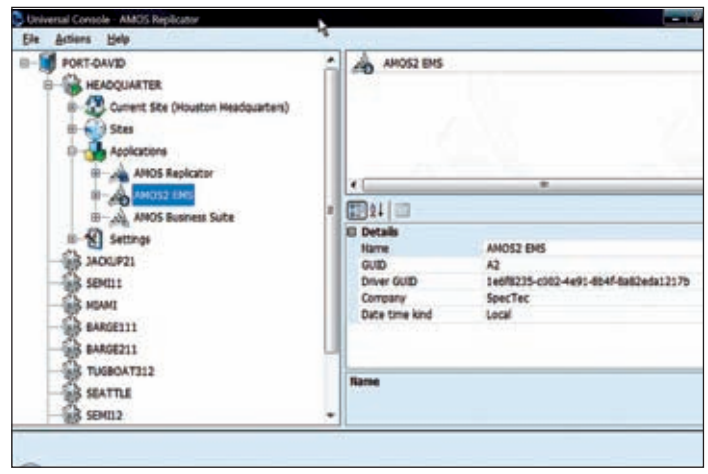
SpecTec has introduced a database replication system for use with its AMOS software package.

The company's new AMOS Replicator (AROR) is the result of four years of development and testing, and SpecTec claims that it can "replicate any data, from any system to any system."

While data transfer capabilities were already included in previous versions of AMOS, SpecTec says that the AROR tool allows the process to be managed much more easily, and for the process to be customised by the user.

The application allows users to install and configure the software, import and export data, monitor the import and export processes, and survey the data replication history. AROR can also be used to resolve problems arising from importing data with missing references.

It has been developed using Microsoft.NET Framework 3.5 and SpecTec says it is suitable for many DBMS vendors' systems (such as MS SQL, Oracle and Sybase).



SpecTec claims that the replicator can replicate any data, from any system to any system

Functionality for data capture, data packaging, file splitting, file posting, and sending has been included, with SpecTec noting that the ability to split or join is an uncommon function for this type of software.

AROR can split the file to be sent into predefined maximum sizes (defined by the user) and then reassemble it back to its original size at its destination.

Crystal Cruises to implement e-procurement

www.shipserv.com

ShipServ reports that Crystal Cruises has signed up to its TradeNet e-procurement platform.

Crystal Cruises, owned by Japan's NYK Line, operates out of Los Angeles, California. The agreement covers two ships, Crystal Symphony and Crystal Serenity, which are both using SpecTec's AMOS maintenance and purchasing system.

"As we look to increase the efficiencies of our worldwide operation, we expect the new system to streamline our purchasing processes," said Bob Koven, vice president of procurement, Crystal Cruises.

"We would like to thank ShipServ for making the implementation process so smooth and seamless."

ShipServ says that its TradeNet community includes approximately 170 shipowners, managers, shipyards and drilling contractors, trading with 37,000 suppliers servicing over 6,000 ships.

Project to examine false seafarer certification

www.maritimefacts.com

Chalmers University in Sweden has begun work on a project which aims to examine the problem of false seafarer certificates, and how the production of a digital seafarer ID card might help to improve the situation.

This research will form part of the EU-backed Mona Lisa project, and aims to conduct a feasibility and exploratory study of a system for control of onboard certificates.

The aim of the study is to construct a system which will be able to remotely control crew certificates to simplify document handling and increase maritime safety.

As part of this project Chalmers University is appealing to industry stakeholders to participate in the study and share their views, knowledge and experiences of seafarer certification.

With this in mind, a website has been set up, at www.maritimefacts.com, where visitors can leave their input in a number of different ways, whether by leaving a comment or participating in a web survey.

The project partners note that all responses will be kept confidential, and that names or e-mail addresses will not be forwarded to anyone else.

Interorient commits to Seagull CBT

www.seagull.no

Seagull has agreed a deal with Cyprus-headquartered Interorient to act as the sole provider of onboard training systems to the Interorient fleet.

Interorient employs over 300 shore-based employees and more than 1,200 seafarers on around 60 fully managed ships, including a number of predominantly ice class product tankers, containerships, roll-on roll-off vessels and bulk carriers.

The company has used Seagull training modules since 2005, starting with Seagull's Crew Evaluation System (CES), a computer-based assessment tool which is used to evaluate the knowledge of seafarers as part of the company's recruitment and promotion process, and to identify future training requirements.

"The CES is a tool we continue to use extensively to verify the competence of new joiners to the company, as well as to enhance the professional knowledge of our existing crew members," said Shane Rozario, Interorient's corporate training coordinator.

Each vessel operated and managed by Interorient, through either of its two main offices in Cyprus and Hamburg and its managing office in Miami, is equipped with a Seagull training computer loaded with Seagull Training Systems (STS).

The STS incorporates Interorient's Career Development System (CDS), and company-specific training programmes, as well as a range of generic CBTs and training videos. Interorient and Seagull have already been working together for almost four years to create a CDS specifically for Interorient's seafarers.

"In view of our recent fleet growth, and our desire to raise the skills of our officers to a higher level, we realised the need to enhance crew training and provide seafarers with a systematic career development strategy. The result is the CDS," said Mr Rozario.

"We determined that this should be a structured system of onboard training courses, including Seagull's standard CBTs as well as various bespoke training modules developed to meet our specific needs. Most importantly it also had to include hands-on training based on our in-house safety management requirements."

'Our seafarers would like the option of carrying out CBT while on shore leave' – Shane Rozario, Interorient

The CDS has gradually been rolled out across the fleet, and by early 2011 all vessels operated by Interorient were equipped with and running the Seagull CDS. Interorient also intends to obtain class approval for the CDS in the near future.

"The CDS is designed to evidence the onboard, company training requirements for a seafarer's current rank, and also the next higher rank, for all vessel types," said Mr Rozario.

"It is used as a promotional tool to provide a career path for all our seafarers, as well as a knowledge base for competence and skill development."

"Together with Seagull we aim to develop the CDS system as a central point for maintaining all onboard training activities, including drills and training related to the types of cargoes being carried."

In addition to shipboard training, Interorient has equipped its branch offices in Riga, St Petersburg, Manila and Cebu with both CES and CMT training facilities, helping to enable crew to carry on with their training while they are ashore.

The company uses more than 40 Seagull CBT titles and training videos for its onboard and ashore training regime, covering subjects including safety, navigation, cargo handling and engineering, as well as the development of 'soft skills' such as communication and leadership.

During 2011 Interorient switched to Seagull's online platform, allowing its seafarers to use CBT training, conduct CES tests and view their training records via the internet.

According to Mr Rozario, the new online systems have proved to be more flexible and are not limited by hardware specifications.

"The message we were getting from our seafarers was that they would like to have the option of carrying out CBT while they are on shore leave, as sometimes it can get quite hectic onboard ship, making it more difficult to complete courses," he said.

"With the Seagull online platform we have given them that option and we have had a very positive response so far."

The online approach has been rolled out across the Interorient fleet over the past 12 months or so and all the company's crew have the chance to carry out training using the internet from wherever they are.

"We now get better, more updated data," said Mr Rozario. "We can log on any time and see a real time training record for our crews."

In other news, Seagull also reports that it has donated a package of its computer based training software to Mercy Ships, the operator of the world's largest non-governmental hospital ship, the Africa Mercy.

Mercy Ships provides free health care, community development, health education and agriculture projects, mental health programmes and palliative care.

"The donation from Seagull increases the skills of our crew, and the onboard training programmes will allow us to direct even more of our resources to the people of Africa," said Arvid Solheim, national director - Mercy Ships Norway.

"Prior to this donation it was necessary for Mercy Ships to fly crew away from the ship for training courses. The fact that the training is now available onboard our ship means the benefits of Seagull's donation are two-fold."

The Africa Mercy has the capability to perform approximately 7,000 surgical tasks each year and is currently in the final month of a 10-month field service deployment in Sierra Leone, a country the charity has visited seven times over the last 19 years.

Once this is completed the vessel will sail to Ghana for a scheduled dry-docking before undertaking six months' field service in Togo.

QinetiQ GRC has appointed **Summit Systems AS,** a provider of computer aided design (CAD) and product lifecycle management (PLM) solutions to the Norwegian market, as the distributor of its Paramarine marine design software in Norway.

The IBM Maximo Asset Management system offered by **SRO Solutions** has been type approved by **DNV (Det Norske Veritas)** and is now approved for use onboard DNV classed vessels with the Survey Arrangement Machinery PMS.

DA-Desk has announced the appointment of three new executive directors - Marcus Demgenski as managing director, Domenico Maria Carlucci as director financial services, and Hans Christian Mordhorst as commercial director. The new members of the senior management team join Ken Anderson, who has been operations director for the past seven years.

www2.qinetiq.com/home_grc/products/paramarine.html
www.srosolutions.net
www.da-desk.com

Van Oord signs 90-vessel IT infrastructure deal

www.palantir.no

Norwegian maritime technology company Palantir is to supply its KeepUp@Sea system to Van Oord's fleet of approximately 90 vessels after the agreement of a new contract, the companies report.

The deal includes design, implementation and support services for Van Oord in the development of its new Vessel IT Infrastructure project.

The IT infrastructure being created for Van Oord will be built on Palantir's KeepUp@Sea solution, and will be delivered as a managed service from the Palantir company headquarters in Stord, Norway.

The agreement will initially cover a three year period. Additional deliveries covered by the deal include hardware, logistics, roll-out and migration services onboard the vessels.

The global roll-out to the Van Oord fleet was scheduled to begin at the start of 2012.

"This major deal is a statement of quality - both for our KeepUp@Sea solution and the skills of the people involved in supporting and developing the KeepUp@Sea solution," said Arvid Dregelid, CEO of Palantir AS.

"The core focus on standardisation and automation of IT&C services proves to be an advantage towards achieving new, international customers."

Van Oord was scheduled to begin the roll-out to its fleet in early 2012

A world leading satellite operator

With 29 satellites, Eutelsat has pionnered the development of today's maritime telecommunications and continues to build its success on the reability of its in-orbit resources, its expertise and continuing commitment to innovation. Our VSAT technology provides corporate class networking services, interconnectivity and real-time data applications for all business, leisure and crew welfare needs.

www.eutelsat.com maritime@eutelsat.fr

eutelsat
communications via satellite

Orion Marine launches latest software

http://orionmarineconcepts.com

Maritime software company Orion Marine has launched version 1.1 of its NAU – Integrated Vessel Management System.

The system is available in the 'cloud', in 45 languages, and includes an interactive training and certification module as part of the monthly subscription. No extra annual maintenance or support costs are charged.

Users can switch the language of the system to one of a list of languages which includes English (as the default), French, Indonesian, German, Russian, Chinese, Korean, Hindi, Japanese, Italian and Dutch, by selecting from the drop down list.

The previous version 1.0 is already in service for approximately 100 ships, with modules covering requisitions, planned maintenance, work planning and permits to work, electronic documentation, environmental management and risk assessment.

A variety of modules for reporting, accounting and analysis are also available.

Aquarius Maritime in Singapore has been among the first shipping companies to choose to apply the system to its fleet, with Aquarius managing director, Capt Pankaj Mohan, pointing to the integration of the multilingual tool as being of particular benefit to the company's multinational staff.

Antigua & Barbuda accepts Regs4ships digital publications

www.regs4ships.com

Regs4ships reports that the Antigua & Barbuda Department of Marine Services and Merchant Shipping has officially recognised its Digital Maritime Regulations service as an electronic equivalent to the Antigua & Barbuda Carriage of Nautical Publications requirements.

Vessels flagged to that state can now replace a number of their printed documents with a single compliance CD or DVD disc. Regs4ships operates a database combining flag state, EU, ILO, IMO and MCA documentation into a single resource.

Antigua & Barbuda is one of fifteen flag states on whose behalf the company can supply Digital Maritime Regulations, which include shipping related directives, circulars and information letters from the flag state, plus copies of the maritime conventions, codes and related publications.

The service is available via a subscription package.

"This is great news for Regs4ships," commented David Clayden, sales and marketing manager at Regs4ships Limited.

"We are continually improving our products and services and flag state recognition is paramount. We look forward to continued expansion throughout 2012."

Hapag-Lloyd to install BASS

www.bassnet.no

German shipping company Hapag-Lloyd AG is to install fleet management systems from Norwegian software provider BASS.

Hapag-Lloyd, which operates a fleet of more than 145 container ships, will initially implement the BASS package on 40 vessels.

The contract includes all ten BASSnet modules, covering maintenance, procurement, dry-docking, safety, risk management and operations, as well as services like database building and conversion.

"After a detailed evaluation process we identified BASSnet as the most complete and powerful fleet management suite in the market," commented Jens Habler, Hapag-Lloyd's senior director IT infrastructure & operations management.

Hapag-Lloyd has now joined fellow vessel operators like Stolt Tankers, Pacific International Lines, NYK Ship Management, "K" Line and CMA CGM in using the BASS system.

"BASSnet's success reflects the dedication, teamwork and customer-oriented approach of our company," said BASS CEO, Per Steinar Upsaker.

"It shows that BASSnet is meeting our customers' requirements for a business driven, complete all-in-one user-friendly suite. We can succeed even against hard competition, and of course it helps that our products are built on up-to-date technology, a single database and are unrivalled."

"In order to save costs, shipping firms need to automate. Invest in our integrated suite, and you will soon see the results in your bottom line."

Hapag-Lloyd will initially implement the system on 40 vessels

Online version of Castrol directory to go live

www.castrol.com

A new online version of Castrol Marine's Directory of Marine Services is set to go live in December, offering access to data on ports and product availability.

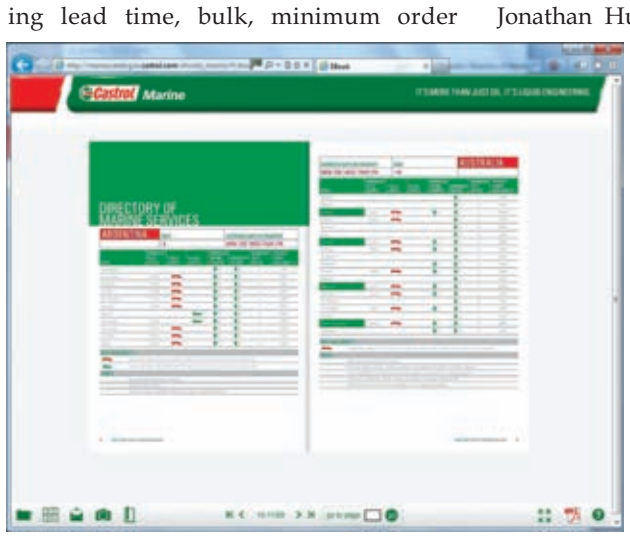
The paper brochure version of DMS was developed to allow customers to check product availability at each port served and details of that product (including lead time, bulk, minimum order required, etc).

In launching a web-based version, Castrol Marine says it has been able to add significant content and capability to the information guide.

"As well as being updateable at any time, the online version of DMS will include greater published availability of products, because supply will be linked to stock points instead of port class," says Jonathan Hutchinson, marine marketing manager, Castrol.

"Furthermore, the DMS will be a single point of access for all up to date Material Data Safety Sheets and Product Data Sheets for all products. The online version offers capacity for additional notes on ports and contact details for supply, as well as information on expected lead times.

The online system will be configured for use on PCs, mobile telephones and tablets, and is supported by Google Maps to guide customers on ports.



The online version of the directory offers capacity for a greater level of detail

Seabourn completes Fidelio implementation

www.fideliocruise.com

Hamburg-based software provider Fidelio Cruise reports that it has completed an IT systems upgrade across Seabourn's six-ship fleet by implementing its system onboard the Seabourn Spirit.

The project began in March, with Fidelio Cruise's Shipboard Property Management System (SPMS), ResOnline and Fleet Management System software installed on board the Seabourn Odyssey, a 32,000 gross ton cruise vessel.

Since then, the same systems have been installed on board the recently launched Seabourn Quest and four other vessels in the cruise line's fleet – the Seabourn Legend, Seabourn Pride, Seabourn Sojourn and Seabourn Spirit.

The six Seabourn vessels now carry a full range of Fidelio software, with all ships now using SPMS for guest, crew and visitor management as well as on-board financial operations.

The Fleet Management System (FMS) and ResOnline System, installed onboard the ships and shoreside, will be used to facilitate the automatic transmission of data between ships and head office, providing real-time updates and enabling Seabourn to monitor and compare the operating performance of individual vessels within its fleet.

The head office will be provided with data for its fleet-side management accounting system and an instant snapshot of overall fleet performance at a pre-determined frequency, typically once a day.

The system installation was managed as part of an integration process with Seabourn's Seattle-based sister company, Holland America Line. Holland America Line's fleet is already equipped with Fidelio software.

"We have taken a rather aggressive approach, switching to Fidelio systems from one day to the next, which proved to be very successful," said Brent Davidson, vice president - information technology for Holland America Line.

"We completed the fleet installation in about six months. We couldn't have done it without the help of Seabourn's crews. Everyone was very receptive and adopted Fidelio readily, which made it a lot easier for all involved. They found a lot of processes much easier and less time-consuming than their previous system."

From ship to shore,
simplicity is the key to success.

20 years experience. 1 simple solution.

- Type Approved PMS
- Minimal Training Required
- Rapid Technical Support Service
- No ‘Per Seat’ or any Annual License Fees
- Global Customer Base from VLCC’s to Workboats
- Complete Package or Single Modular Components available
- PMS, Stock, Procurement, Dry Dock, Safety & Document Management Solutions

Visit **www.marinesoftware.co.uk**
or email **info@marinesoftware.co.uk**

MARINE SOFTWARE LIMITED

Christmas gifts from KR and Thomas Gunn

www.krs.co.kr
www.thomasgunn.com

The Korean Register of Shipping (KR) and Thomas Gunn Navigation Services have both made donations of their respective technologies to worthwhile causes during the Christmas period.

KR has donated 150 copies of its KR-CON software application to the World Maritime University in Malmö, Sweden.

KR-CON is a database application that contains the full texts of all IMO Conventions, Codes, Resolutions and Circulars, contained in a single USB device, that can assist in applying the various rules and regulations correctly.

In addition to donating the KR-CON system to the university KR says it will also provide updated versions each year.

"KR-CON is one of KR's greatest software and R&D achievements," said Oh Kong-Gyun, KR's chairman and CEO.

"Using state-of-the-art technology, we have been able to archive the vast repository of IMO-generated material and deliver it in a user-friendly and intelligent format to a range of shipyards, shipping companies, flag states and other maritime authorities."

"I was particularly proud when we were asked to create and supply a tailored version to the European Maritime Safety Agency (EMSA) to assist with its port state control activities. I am equally proud to be donating our system to the World Maritime University."

Meanwhile, Thomas Gunn has donated a complete set of world routing charts to the Jubilee Sailing Trust (JST) to voyage around the globe for the first time, creating an opportunity for physically disabled people to explore the world from the decks of a square-rigged sailing ship.

"No other country operates a tall ship that can accommodate disabled people, including wheelchair users, to the extent of the specifically designed and purpose-built JST vessels," explains Andy Spark, ship operations manager, Jubilee Sailing Trust.

"While the concept of sailing a tall ship around the world with novices on board is not new, this circumnavigation brings new meaning to the idea that 'everybody' can experience crossing the oceans on a square-rigged sailing ship. The ethos of the JST is to integrate people of all physical abilities, so at any one time, around 50 per cent of the voyage crew will be able-bodied and the other 50 per cent will be disabled."

"To accommodate a range of disabilities, the JST ship features lifts for wheelchair users, an audio compass for the visually impaired and a hearing loop for the hearing impaired. Representatives from the proposed ports of call for the voyage are already expressing an interest in chartering the ship during her visit to their country as an unprecedented opportunity for their disabled nationals."

The planning process for the 18 month voyage is well under way, with the vessel expected to leave the UK next winter and follow the route of the old trading square-riggers, arriving in Australia in time to represent the UK during the International Fleet Review of the Royal Australian Navy, in October 2013.

The JST ship will then take part in a Tall Ships Race from Sydney to Auckland.

"We are delighted to support this unique endeavour," says Thomas Gunn, founder and managing director of Thomas Gunn Navigation Services Ltd.

"During our work with the Trust we have seen it changing lives, giving people of all physical abilities and sailing experience the chance to experience the thrill and adventure of being at sea, sailing side by side as equals."

New software from Intellocorp

www.intellocorp.com

Maritime technology company Intellocorp reports that it has partnered with Danish shipowner Sea-Flex to launch two new products, IntelloShip and SeaPlan, for 2012.

The software systems are both available as Software as a Service (SaaS) or as an On-Premise-Software installation, and aim to provide tools to manage operations and monitor the performance of the company.

The IntelloShip system is used to control and analyse a range of shipping company data, offering drill-down capabilities for specific detail as required. This is supported by the SeaPlan service, which is used to manage compliance, certificate management, and other administrative tasks like purchasing and budgeting.

Through its partnership with Sea-Flex, Intellocorp will be able to perform onboard testing of the software, with the aim of removing any bugs before entering into the marketplace.

"IntelloShip is a software that has been needed in the maritime industry for a long time, the added value of IntelloShip is significant and will add transparency, timeliness as well as cost savings," said Shannon McKee, president of Access Cruises.

ClassNK updates free container structure software

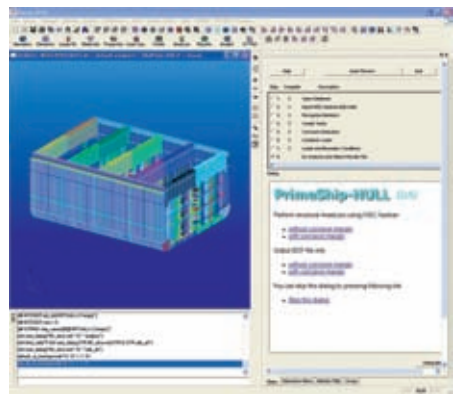
www.classnk.or.jp

ClassNK has released a revised version, version 2.5.0, of its direct strength assessment program for container carriers, PrimeShip-HULL (DSA)/Guideline for Containers.

The software, which will be made available free of charge, is designed to perform the direct strength assessment (DSA) calculations for container carrier structures defined in the guideline. Using an FE (finite element) model, users can execute complicated FEM analyses through the use of special features such as the automatic identification of structural members and compartments.

The class society says that this could assist ship designers and shipyards in improving efficiency in the ship design process.

"The workload of ship designers has increased as a result of the ever growing number of regulations and conventions. ClassNK sees the easing of such burdens and the improving of efficiency through IT



ClassNK's software is available free of charge

products and services as a key goal of our Society," says ClassNK president, Noboru Ueda.

"This software is the product of the Society's many years of experience in both drawing approval and software development. ClassNK will continue to use this experience to further boost usability, upgrade overall performance, and develop powerful new functions."

Eimskip to install GL software

www.gl-maritime-software.com

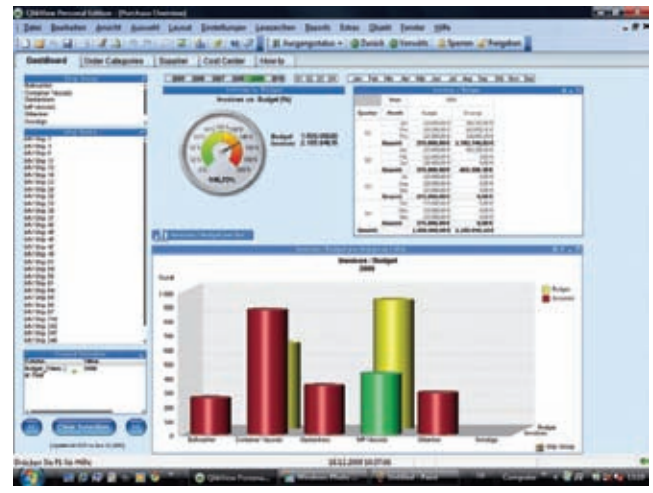
Icelandic shipping company Eimskip is to implement the GL ShipManager and GL FleetAnalyzer fleet management software systems from Germanischer Lloyd.

Eimskip chose the new systems after examining applications from six maritime software providers, and will use the technology to support the ship management activities of its expanding fleet.

The focus of the implementation will be on integrating processes such as maintenance management, purchasing and inventory control, as well as safety management, and will include an interface with the SAP accounting system already in place at Eimskip.

The FleetAnalyzer will be used for reporting and monitoring of budget and maintenance performance, as well as creating metrics on a fleet-wide level for further analysis.

The project began at the end of 2011, with a set of initial project milestones scheduled to be achieved by the beginning of 2012.



The FleetAnalyzer is one of two systems to be provided

Northern Marine first for energy management audit

www.bureauveritas.com

Northern Marine Management has completed the first certification audit of any shipping company in the world to the new standard ISO 50001- 2011 - Energy Management Systems, covering systematic monitoring and control of energy usage.

The audit of Northern Marine Management Ltd, Stena's ship management division, was performed by Bureau Veritas.

Only four other organisations in the UK have this certification, one being the Royal Mint, and no other shipping company has yet achieved this.

Northern Marine Management technically manages fifty-seven vessels, including the Stena tanker and gas carrier fleet as well as vessels for various other blue chip ship owners.

"Achieving this new and high standard for energy management across the whole company is a key step for us in demonstrating that shipping is at the forefront of environmental responsibility," said Philip Fullerton, technical director, Northern Marine Management.

BS ISO 50001 Energy Management Systems is intended to assist organisations in making better use of their existing energy consuming assets, create transparency and facilitate communication on the management of energy resources and promote energy management best practices and reinforce good energy management behaviours.

Northern Marine implemented its first Shipboard Energy Management Plans on board its Stena AB vessels during 2005, which was followed by the introduction of an environmental and energy efficiency rating scheme on five of the company's ro-ro vessels.

These moves meant that the monitoring and measurement processes were largely in place for the new fleet and company-wide standards, which were codified and documented in the form of the company's two new policies: the 'Safety, Environmental, Energy & Quality Policy' and the 'Energy management and Efficiency Policy'.

We've connected our dots to help you better connect yours.

Perhaps you've heard that Harris Corporation is building the largest business focused specifically on remote communications — Harris CapRock. If so, you're probably wondering what that means for you.

For starters, it means you have access to the world's most advanced terrestrial, wireless and satellite network for remote communications. It means you'll get responsive, reliable communications connecting your operations anywhere on Earth. It means the most extensive local service and support in the most countries with teleports on 6 continents, 5 Customer Support Centers, 83 points of presence on a global terrestrial network and 140 countries served. It means we're ready to meet all of your communication demands today and tomorrow.

So how will Harris CapRock better connect your dots?
If you had to pin us down, we'd say "in every way."

www.harriscaprock.com/maritime-ds

HARRIS CAPROCK™

RELIABILITY NEVER REACHED SO FAR™

What do these market leaders have in common?

NORTH STAR SHIPPING
A member of the CRAIGGROUP

OLYMPIC
OLYMPIC SHIPPING AS

EMAS

SeaBird Exploration

ISLAND OFFSHORE

DCF

NORTH SEA SHIPPING

Eidesvik
Your Partner in Shipping

Knutsen OAS Shipping

SIMON MØKSTER SHIPPING

Gulf Offshore Norge AS

subsea 7

seaTacks

TM Master...

Fleet Management Solutions

Maintenance & Inventory - Docking Management - Centralised Procurement - Crew Management - Voyage e-Log - HSSEQA

TeroMarine
Fleet Management Solutions
www.teromarine.no – admin@teromarine.no

Meet us at
Asia Pacific Maritime
in Singapore 14.-16.
March 2012.
Stand BB02 Hall B.

Design software updated by AVEVA

www.aveva.com/marine

AVEVA has released its latest Design Reuse 12.1, Space Management 12.1 and Surface Manager 12.1 versions of its software products for ship design, all part of the AVEVA Marine portfolio.

AVEVA says that Design Reuse 12.1 will allow for copying of ship design data so it can be reused on a similar ship, allowing a standard design policy to be used on new designs.

The new software enables designers to create new designs using parts of previous designs, and to apply a standard design to a new project. Objects can be copied based on properties, attributes or dates.

AVEVA Design Reuse also allows for the definition of the material quantities and costs of similar ships to be created early in the design process, for budget estimation and project cost monitoring.

"AVEVA Design Reuse allows shipyards to make the fullest possible use of their expertise and previous designs. This cuts down design time and effort when modelling a new project," said Stéphane Neuvéglise, head of business management – marine systems, AVEVA.

"Through its adaptive capabilities, AVEVA Design Reuse can cut up to 70 per cent off the time needed to redesign a similar ship from scratch."

AVEVA Space Management 12.1 is a shipbuilding system used to automatically create and manage layout drawings that document the subdivision of the ship into spaces with their functional design properties.

The company says that the capabilities of the new product should help to reduce risk in the design of more complex ships such as cruise ships, naval surface vessels, submarines, ferries and offshore supply vessels.

AVEVA Space Management generates a ship wide, room-oriented functional definition of the ship design, which can be reused in other design disciplines. As the design evolves decisions regarding the shape and functional properties of spaces are recorded and refined in the software.

Interrelationships between the functional needs of adjacent spaces can thus be handled to ensure that the overall ship design is safe, complies with regulations and is cost efficient.

Design properties are recorded in the 3D model of the ship and can also be documented in automatically created General Arrangement based drawings.

"AVEVA Space Management is a new tool for space design decisions which reduces potential project-risk by enabling a 'what if' approach within the design process," said Mr Neuvéglise.

"It facilitates advanced functional design optimisation by using an early 3D space model of the whole ship, allowing many more options to be considered in the available design time. In parallel, it automatically creates General Arrangement-based drawings typically used to record space design decisions."

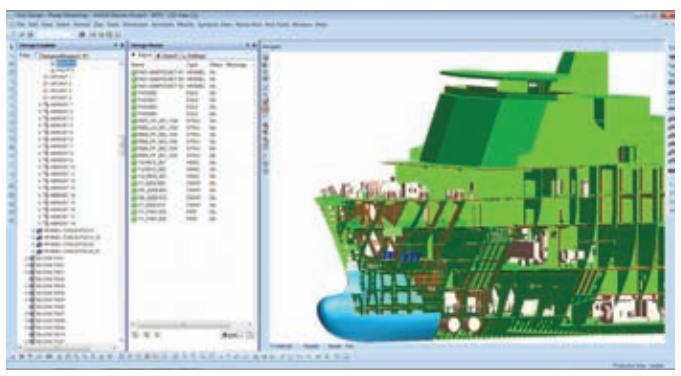
"Designers can then focus on design decisions rather than the creation of drawings that document the decisions. This is particularly important on complex designs that require multiple design iterations that create many General Arrangement drawing revisions in order to reach an acceptable design."

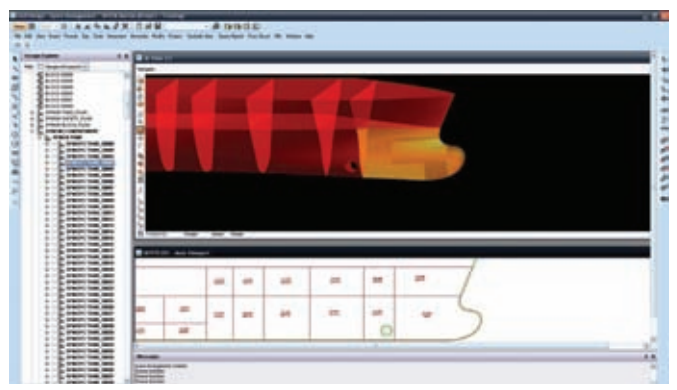
The other new product, AVEVA Surface Manager, allows the transfer of surfaces to and from external systems, in various formats such as IGES, SAT, DML and STEP AP 203, by the use of neutral standards.

Surfaces from existing projects for conversion can also be extracted into external formats for use in third-party software.

The AVEVA system includes tools for quality assessment of the managed surface and, if needed, can repair defects detected in surfaces transferred from third-party applications.

For the sub-division of work packages, the Surface Manager can also split surfaces so shipyards can protect the investment and confidentiality of their hullforms by only distributing to sub-contractors the part of the hullform they need to do their work.





The latest versions of AVEVA's Design Reuse (left) and Space Management (right) have been released

Benchmarking – the magic term?

Surviving in a difficult market is something that a lot of companies have been faced with recently. InterManager, whilst not promising a magic wand, has developed a tool that may help achieve this difficult feat, and has recruited Columbia Shipmanagement as one of the first companies to test it. Markus Schmitz, SOFTImpact, and Dietrich Wulff and Alexander Oswald from Columbia Shipmanagement spoke to *Digital Ship* about this new technology

In June 2011, InterManager launched its 'Shipping KPIs' in London (*Digital Ship*, September 2011). Since then, the corresponding online database for reporting and benchmarking, InterManager KPI Environment (IMKE), has been made publically available.

A total of 62 companies have entered their KPI (key performance indicator) data from Q1 and Q2 2011 into IMKE following the launch. The first to enter information into the database were what the IMKE partners call the 'fast five': Columbia Shipmanagement, Bernhard Schulte Shipmanagement, Thenamaris Ships Management, V. Ships and Marfin.

This 'fast five' were to go on to form the basis of the subsequent 'Shipping KPI Expert Group', which was expanded to also include MMS Co, Marintek and Wilhelmsen Ship Management, as well as SOFTImpact as the company responsible for assisting developers in shaping the final web based application.

These IMKE pioneers were quick to grasp InterManager's KPI concept and the individual parameters, but were also aided by the fact that their existing reporting structure enabled them to easily adapt the IMKE system to their own organisations. Together, the 'fast five' have provided data from a significant number of vessels for the database, amounting to 646 so far.

As the inflow of companies and vessel data continues, the IMKE database is anticipated to contain data material from 1,000 vessels by April 2012 and, it is hoped, will contain KPIs for 2,000 ships by the end of 2012.

This kind of growth will require the shipping industry to respond positively to the project, and for more organisations to enter their KPI material. Only if the database contains a substantial amount of data will the benchmarking tool provide significant informative value.

However, since the comprehensive use of the benchmarking tool requires the collection of a wide variety of information, including finance, inspection, HR, technical, environmental data etc, it is an ambitious goal to hope for wide industry participation as soon as the end of this year.

"Although most companies have the relevant information available somewhere," says Markus Schmitz, managing director of the IT company creating the IMKE software, SOFTImpact, "assembling, centralising, preparing and processing this array of data can pose a big entry hurdle."

Extensive research and collaboration with the shipping industry over the project's six year development period has further shown that a number of shipping companies have hitherto not used a structured collection or storage system for KPI relevant data.

He pinpoints that, so far, there has been no unified and standardised way of accumulating performance related data and working out KPIs in the shipping industry.

"A large number of companies," says Mr Schmitz, "do still not use KPIs to review and improve their business performance. The ones that do, resort to their own systems – there is no such thing as a standard, yet."

To further the confusion, the variety of KPI storage formats, from simple paper copies or Excel to advanced databases and collection systems, has proven to be almost unlimited. A further complication lies in the fact that there are usually various people responsible for the collection and storage of the data needed for the IMKE database.

Only a very small number of organisations have this data so readily available in their system that it can be exported into a new external system without much effort. At the forefront of these are the tanker companies that are often under pressure from their charterers, namely big oil companies, to provide KPIs.

As such, tanker companies have shown particular interest in using IMKE at this stage.

Benefits of using IMKE

IMKE is an online database tool that allows users to enter data about their fleet. This data can then be used to do reporting.

Another important function is the benchmarking tool. Once sufficient KPI data has been accumulated this will enable a user to compare the performance of his fleet, or certain parts thereof, to the industry average.

"The concept of a KPI database is that the quality of work can actually be measured as opposed to gauged," explains Mr Schmitz.

The first six months of having the system online have shown that IMKE users can be divided into groups according to what use they intend to make of the database. The two main categories are ship owners and ship managers, and Mr Schmitz has found their aims to be surprisingly different.

"The owners are actually a very strong group when it comes to using IMKE," says Mr Schmitz. "At the moment they are the strongest interest group."

"Their key goal is self-improvement. This means they are mainly interested in collecting and entering data where they reckon they can improve, which are especially the ones where they do not excel."

"Management companies can share the benefit of self improvement and additionally see an opportunity to demonstrate how well they are doing towards their customers."

The use of the database is entirely up to the companies entering their data, there is no regulation of its use. IMKE does not ask the user to enter a complete set of KPI, however the more data a user has available when starting to use the database the more comprehensive the results will be.

Mr Schmitz notes that a number of KPIs are specific to the kind of vessel and the type of trade engaged in.

Shipping KPI data is collected quarterly and can be entered into IMKE at any time (i.e. data from past quarters can be included). Data can be entered via an interface that allows for electronic data transfer into IMKE.

As soon as the data is saved in the system, the KPIs are automatically calculated. These can be used for reporting and comparing the vessel with other ships in the fleet.

Vessels can be displayed separately with an individual pie chart or in a fleet overview. A colour-coded system makes it possible to spot unusual data immediately. With a click on the highlighted KPI, the user receives an explanation containing the definition of the parameter, its dependencies and the formulae used to calculate the rating.

The company's KPIs can, in turn, be benchmarked against a chosen reference group. This group is compiled according to the specifications of the user and defined by parameters such as individual vessels, vessel types, trading areas, nationality of senior officers, vessel subtypes, flag and DWT ranges.

For example, a vessel operator can choose to benchmark a particular vessel in his fleet against all container ships that are trading in Europe, under Russian officers, under the German flag, above 200,000 DWT.

The resulting bar chart will initially show the highest condensed parameter, the Shipping Performance Indices (SPI). By clicking on the respective bar, the user can drill down to the individual KPI and obtain an explanation, a breakdown according to vessel type, and any trends.

Ultimately, it depends on the individual organisation as to what use it makes of IMKE with regards to input, reporting and benchmarking; the possibilities are manifold.

Of course, the complexity of any tool delivering an array of functions also creates the need for instruction, and the IMKE partners have already started to schedule training programmes for the shipping community to introduce the features of the technology, starting with a session at the *Digital Ship Hamburg* 2012 conference (see box at end of this article).

"Firstly, users need training," says Mr Schmitz, "for the internet page, which we are trying to keep simple, intuitive and user friendly."

He also acknowledges that "due to special user requests and in order to incorporate all desired functionalities the software is getting increasingly complex. But then, every powerful software is difficult to use."

"The next step in training," he continues, "is the KPI standard as such. The user needs to know what is measured and how. Ultimately, the user needs to understand how the KPIs that result from the data he has entered are to be interpreted. E.g. what does it mean if a company has a certain KPI of 7? Is it good or bad, and what if the industry average is 9 or 5?"

Another reason highlighted for compe-

The IMKE tool allows users to benchmark their performance against the aggregated results of other operators

Powering Satellite Communications *and More*

SingTel has ICT covered end to end.

SingTel goes beyond owning satellites and teleport infrastructure to provide widespread connectivity.

From applications increasing ship to shore communication efficiency, to network management, to field installation at ports around the globe. With 4 teleports pointing to more than 30 satellites, supported by an extensive terrestrial network of more than 52 PoPs in over 30 cities – SingTel ensures quality customer experience in communications and connectivity.

- ✓ **Cost effective crew welfare applications**
- ✓ **Intelligent fleet network management system**
- ✓ **24 x 7 Network Operating Center**
- ✓ **Experienced ICT consultants**
- ✓ **Secured private network**
- ✓ **Real-time shore applications**
- ✓ **Flexible price plans**
- ✓ **Global coverage**

Our innovations are formulated by researches involving key shipping professionals in SingTel hosted forums. A leading Satellite and ICT provider with more than 35 years of experience, SingTel offers complete solutions to naturally drive productivity, efficiency, and experience.

For the new year, here's what we have for flexible price plans.
An unprecedented $2888 unlimited service package which includes MVSAT and FleetBroadband backup*.

To learn more about our New Year price plans and be on our mailing list for updates, please contact us at **satellite@singtel.com**, indicating **DS-SingTel** in your reply.

Global Service Center (24hrs)
+1800 788 0022 (Singapore) +65 6788 0022 (International)
Email: satellite@singtel.com
www.singtel.com/satellite

*Terms and Conditions apply

SingTel

tence training is the fact that it is only if the user knows what he can gain from entering data into the system that he will be motivated enough to do it properly. Training is also essential to ensure that all data is entered correctly and that the database is displaying the right information.

Currently, the trust that owns and manages IMKE is working to set up a certified training system that can guarantee quality and comprehensiveness.

Another entry hurdle for using a complex tool is the time and financial investment required to begin, as well as the subsequent ongoing effort involved.

With regards to IMKE this depends very much on the size of the company and its existing reporting and controlling structure. The effort could be justified if the solution is going to prove valuable over time.

"IMKE has been designed for a long usage period," remarks Mr Schmitz, "and we hope it will be in use for at least ten years."

Mr Schmitz further emphasises the importance of ensuring that all users interpret the KPI accurately and use IMKE correctly. This is paramount in order to obtain accurate benchmarking results.

Apart from the internal management there are several external parties that might potentially be interested in viewing the KPIs and the results of the benchmarking process.

In addition to the owner and charterer, insurance companies and P&I clubs have signalled their interest as this would allow them to adapt their premiums and reward companies with strong KPIs. It is, however, down to the individual company to decide on this.

Outlook

As an industry initiative, the InterManager KPI project and its IMKE database depend on a few significant factors in order to be successful.

"The most important key to the project is to obtain a critical mass of vessel data," explains Mr Schmitz.

"By the end of 2012 we are hoping to have 2,000 ships in the database. This, I think, is the amount that is necessary to use the data effectively and to secure the success of IMKE for the whole industry."

Such large numbers are, however, not needed for segmented analyses. Certain parts of the shipping industry are only interested in benchmarking against each other, such as tanker companies. The critical mass for these certain segments may thus be reached much earlier.

"I believe that IMKE will reach the critical point in some segments such as the tanker and gas carrier business much earlier than for the overall shipping industry," asserts Mr Schmitz, mentioning 500 vessels as a good number.

Another long-term concept where IMKE could be applied is for KPI based contracting. Under such a scheme it would be possible to award higher fees to ship managers that produce strong results in the benchmarking process.

"Some very confident managers see this as a prime goal," notes Mr Schmitz. "The standard is a living being that will constantly evolve, change and adapt. It will never be completely finished."

"Now is a very dynamic time. The database has been in use since June and companies can see what they can do with the tool, play around."

"We get a lot of queries to add features and functions. The wish-list is long. The challenge at this stage is to incorporate the important functions whilst at the same time keeping the software manageable and usable and not creating a monster."

The system will go through a period of live testing, subsequent to which the whole database will be reviewed and necessary corrections made. In short, the standard has to be verified according to real live data.

Mr Schmitz is convinced that, with the hoped for industry participation, there will be substantial benefits to the users. "The KPI project," he concludes, "has extreme potential."

An overview of the fleet's KPIs can quickly show where the company is performing well, and where improvements may be required

InterManager debated a variety of solutions and decided against an independent vetting process. The system, however, has been designed to detect KPI values that divert abnormally from the typical standard.

For example, if a company enters that it has 6 cadets per vessel and the usual number is between 0-3 the system detects the potential mistake and notifies the user.

"It is tricky to adjust the software to recognising wrong values, but some values are so wrong that an automatic system could detect it," explains Mr Schmitz.

Confidentiality – who has access to the data?

In order to ensure maximum security, strict confidentiality measures have been introduced. Vessel data can only be entered by the DOC (document of compliance) holder, typically the ship's manager, who also permits and restricts access to the data.

All entered data is owned by the company who has supplied it. This becomes especially significant when a vessel changes management – without authorisation of the previous manager, the new manager cannot view and use the data.

Columbia Shipmanagement

Columbia Shipmanagement is one of IMKE's 'fast five' users, and a member of the Shipping KPI Expert Group,

Captain Dietrich Wulff, Q.A. Manager / DPA, Columbia Shipmanagement, and Alexander Oswald, who assisted in technical matters by consulting with Columbia Shipmanagement on matters of Business Intelligence, told *Digital Ship* about the company's motivation to participate in this project.

"We felt obliged," says Mr Wulff," to be amongst the first companies to get started on the IMKE project. The uploading of performance indicators for a sufficient number of vessels at this stage was, and is, essential in order to validate the concept."

Another key factor for early participation and support of the project was that Columbia Shipmanagement, like other organisations, has experienced difficulties in communicating using its proprietary KPIs.

"It was evident," explains Mr Wulff, "that a KPI standard within the shipping industry was missing. Consequently, there was a need to focus on the most important performance indicators and provide a tailor-made reporting tool for the various stakeholders."

"Before the InterManager KPI project everybody had a different understanding of what individual KPIs mean. A standard makes it a lot easier to exchange data with another ship management company or owner and it gives us common ground for discussion."

Columbia Shipmanagement has been inputting data into IMKE since early 2011, so far providing data and information on 90 out of the company's 190 vessels. Columbia used a file based upload mechanism, with support from SOFTImpact, for this process, though this mechanism is planned to be replaced by a fully automated interface in the coming quarter.

Mr Wulff is conscious of the fact that the tool is still in its initial phase, but explains that Columbia Shipmanagement were still able to be convinced to take part in this project at such an early stage, providing a contribution which he feels is vital for its success.

"Monitoring, measurement and controlling of processes," he explains, "can be achieved by using KPIs at any given time. KPIs are great tools to assist a company to identify trends, control limitations and track effectiveness of corrective actions."

"Being able to benchmark effectively was one of the main objectives in taking part in the KPI project that led to the set-up of the IMKE benchmarking website."

"The absolute fundamental basis for that is to establish a common understanding on KPIs among all stakeholders. It is of the utmost importance to have common ground for discussion about the KPIs, their source and dependencies between each other."

Mr Wulff also highlights a further potential advantage of IMKE as an off-the-shelf reporting and business intelligence solution. "Organisations," he says, "wishing to make use of the industry standard are able to do so without having to invest heavily into their own IT-infrastructure and business intelligence knowledge."

No considerable introductory input

As explained by Mr Schmitz, IMKE's introductory investment with regards to time and money can be substantial. This concern, however, did not prove true for Columbia Shipmanagement.

Columbia Shipmanagement has used an internal Enterprise Resource Planning System (ERP) since 2010. The ERP, which functions as the company's central business application, hosts all processes throughout the whole Columbia group.

Mr Wulff explains, "this ERP is the transactional system and contains all business process related data."

In order to incorporate the InterManager KPI system, the IMKE database had to be connected with the ERP. A specific software architecture was devised to secure the data transfer.

Some time had to be spent on aligning the InterManager KPIs with the company's proprietary KPI system, a part of the system integration that is detrimental for the success of the tool. In order to obtain correct benchmarking results, organisations that have been using KPIs need to ensure that their understanding of each individual parameter is the same as InterManager's.

Columbia Shipmanagement's IT team analysed the KPI framework via the handbook provided by InterManager and broke the parameters down into the business processes contained in its ERP. Subsequently, reports were designed and a validation process created.

The transition from Columbia Shipmanagement's previous system to the new one using IMKE was executed by the company's in-house IT- team.

"This process," says Mr Wulff "was very straight forward. We don't need dedicated staff to collect data for the IMKE website, the business process output itself drives the InterManager KPI framework and BI (Business Intelligence) solution. And since the BI platform had been implemented prior to the KPI system, there was no considerable financial input."

Columbia Shipmanagement is confident that the on going integration of the InterManager KPI framework into the company's ERP system will be concluded within four months.

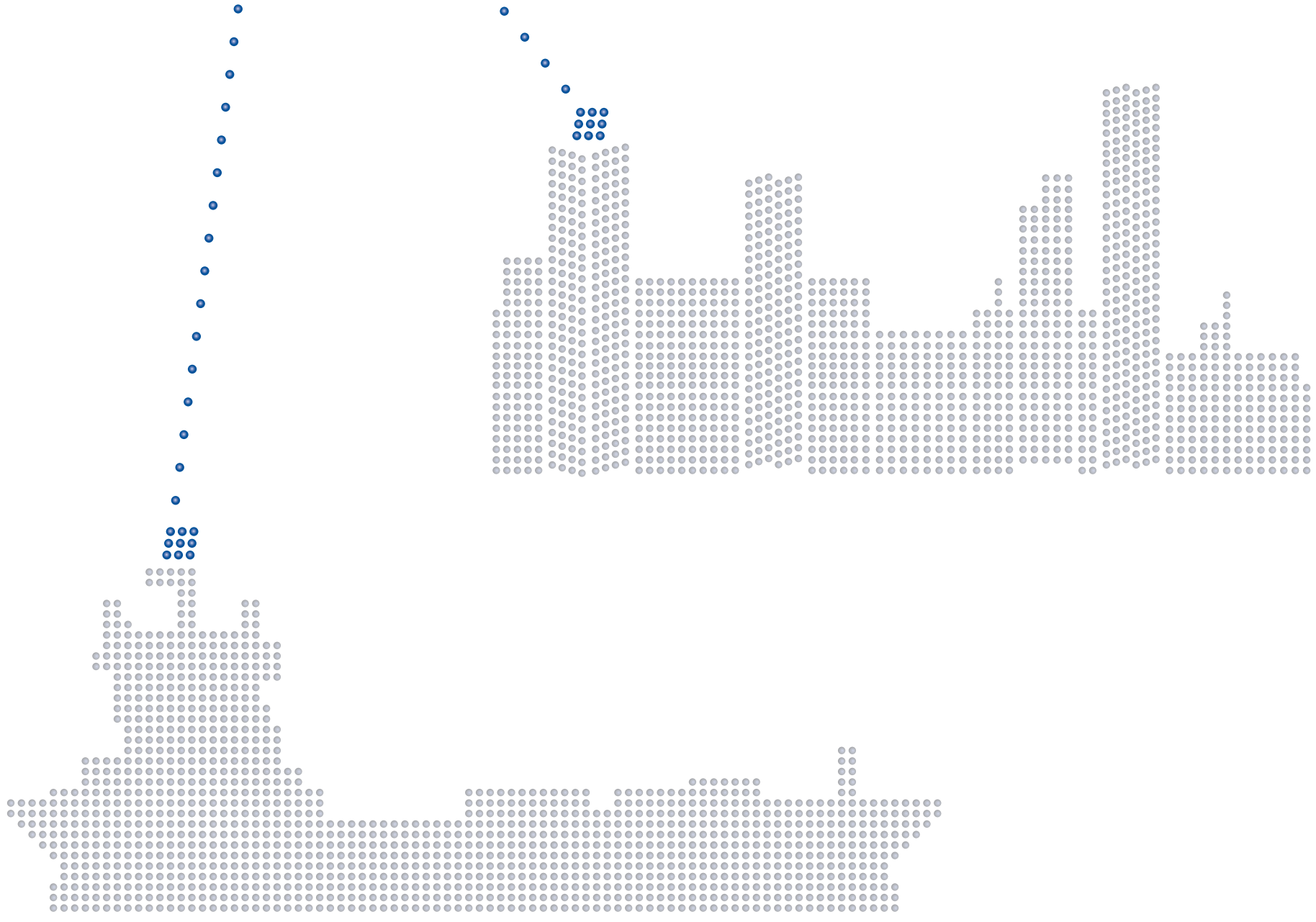
However, companies that do not use an ERP system already, or are less familiar with the use of KPIs, might take considerably longer to implement IMKE.

Minimal ongoing effort

On top of the initial investment, companies adopting the tool will need to estimate the continuing effort that will be required to keep the system running. Columbia Shipmanagement says it has found the implementation of IMKE with

RADIO HOLLAND CONNECT: AIRTIME ANYWHERE

WE CONNECT AT SEA



FOR ALL YOUR
CONNECTIVITY SOLUTIONS

www.imtechmarine.com

Design by superyachtart.com

Imtech

Radio Holland

its BI solution manageable, and the ongoing effort to be minimal.

"There is hardly any additional workload for our staff," says Mr Wulff. "The necessary parameters are fed into the system through their daily work. All data entered into the ERP is automatically loaded into IMKE and figures can be extracted according to need at any given time."

Staff at Columbia Shipmanagement also needed no enticement to learn about a new system. "On the contrary," says Mr Wulff, "our users are keen on using the tool, because this way they can analyse their daily progress and see their results immediately, as well as spot room for improvement."

Thus, there is no extra IMKE training needed for the company's users, a further simplification of the integration process which is likely to add to the acceptance of the system by the staff.

Columbia Shipmanagement has also avoided another potential stumbling block, the correct understanding and interpretation of the InterManager KPIs by the individual user. The company is supporting its staff through a structured system of information on each individual KPI, displaying the KPI value as well as some of the calculation background.

Additionally, the system is configured to offer an explanation on how the KPIs are calculated, what specific work processes they are based upon and on the ownership of the process. "We devised this in order to make our lives easier and the process of calculating KPIs and benchmarking our company waterproof," notes Mr Wulff.

Aided by the existing BI and the in-house IT team, Columbia Shipmanagement has been able to integrate the new system with virtually no additional effort from the staff. However, it should be noted again that not all companies could be expected to implement IMKE so easily.

As Mr Schmitz explains, there will be need to create specific structures and carefully instruct the staff collecting the data and using the database. The implementation phase for an organisation that has neither the IT resources at hand nor the necessary data ready is therefore likely to take substantially longer.

For most companies it will further be essential to be able to make use of a sound guidance/ support and training system, both during the implementation phase and whilst using the IMKE tool. Support and training should ideally encompass all stages of the transition period to the InterManager KPI system, and carry through to the ongoing use of the system.

Columbia Shipmanagement has so far not needed extensive training or support. This, however, might be due to the fact that the company, as a member of the KPI working group, was already familiar with the concept of the system as well as its potential complications.

A new user will firstly need to understand the InterManager KPI system with all its parameters and their hierarchy. "This," says Mr Wulff, "is essential in order to establish how to collect the relevant data in the organization."

"For the accuracy of the benchmarking tool it is absolutely crucial that all users have the same understanding of the parameters. Guidance should therefore leave minimum room for interpretation."

The support should further cater for the needs of different users. Some users, such as smaller companies, might want to collect their data, upload it on to the IMKE webpage and use the reporting function. They will look for support in collecting and uploading data, using the reporting function and subsequently in understanding and interpreting the results.

Other organisations that use their own reporting systems, such as Columbia Shipmanagement, will want to integrate their structure with the InterManager KPI system and IMKE database.

"These," explains Mr Wulff, "will look more for technical support in merging the two systems and feeding the database with data as well as obtaining results afterwards."

Outlook and potential

The IMKE database and benchmarking tool is still in its early stages. It may have been proven to work as a reporting tool so far, but its worth as a benchmarking device is yet to be determined. This depends on industry participation and the amount of data entered and updated regularly.

Mr Wulff is hoping for a positive response within the shipping industry. "One can only estimate, but I would say that 1,000 vessels is the minimum to provide for a sound industry representation," he says.

"The more vessels enter their data, the better and more accurate the results are." He adds however, "that this process might well take a while."

Mr Wulff further points out that it is important that every single indicator reaches a volume of around 1,000. "This," he warns, "might not be so easy to achieve. Some KPI are very specific to certain companies or areas. Additionally, not all users will have the data available and might want to contribute some of the KPI at a later stage."

If the development of the IMKE database goes as planned by InterManager, and as hoped for by Columbia Shipmanagement, the effect on the shipping industry might be significant.

"I can imagine," says Mr Wulff, "that the KPI tool will be used by potential customers in the future in order to assess and appraise a company's competence, similar to the practice in the oil industry."

"A shipping standard, where everyone has the same understanding of the KPI, will be of great value in this respect. If I was to convince a potential user of the InterManager KPI system and database, I would give them one key phrase: benchmarking."

"Benchmarking," concludes Mr Wulff, "is the core of the project and its most important feature and main benefit. Every company that is interested in the continuous improvement of its performance – and incidentally in the survival on a very difficult market – needs to know how good they are and gauge where they stand in comparison with the competition. From this point of view, benchmarking may be the magic term!" DS

As part of its efforts to introduce the benefits of its KPI project to the shipping community, InterManager will be running a workshop as part of the Digital Ship Hamburg conference on 1-2 February 2012, that aims to provide an overview of how companies can utilise the IMKE KPI Standard and System to collect performance data and benchmark their ship operations against the industry.

Attendance at the workshop is free for employees of shipping companies. For further information or to register for the workshop, visit the Digital Ship website, at http://www.thedigitalship.com/conferences/hamburg/hamburg_2012.shtml

LNG engine room simulator from Kongsberg

www.kongsberg.com

Kongsberg Maritime has released an Engine Room Simulator (ERS) model based on a Dual Fuel Diesel Electric (DFDE) Engine Room configuration from an LNG carrier.

The simulated ship has two propulsion motors geared together to one fixed pitch propeller. In addition to propulsion control and power management systems, the model includes four Dual Fuel Generators (6.6kV), one bow thruster, and a number of ship service and gas handling consumers, both low and high voltage.

Students can train on dual fuel engines, learning how Boil Off Gas (BOG) can be used in an effective plant and in a diesel electric combination.

In addition to gaining a full understanding of DFDE engines, training scenarios on potential energy saving can be created that take into account the current cost of fuel and compare the efficiency of a DFDE plant and a traditional steam plant.

"The training requirement for Dual Fuel engines is growing rapidly," said Leif Pentti Halvorsen, product manager for engine room simulators, Kongsberg Maritime.

"Of the 30 LNG carriers with non-steam turbine propulsion on order at Samsung as of December 2006, 16 featured DFDE propulsion. Since then, the share of new LNG carriers with DFDE propulsion systems has grown to be the majority of all new LNG carrier buildings."

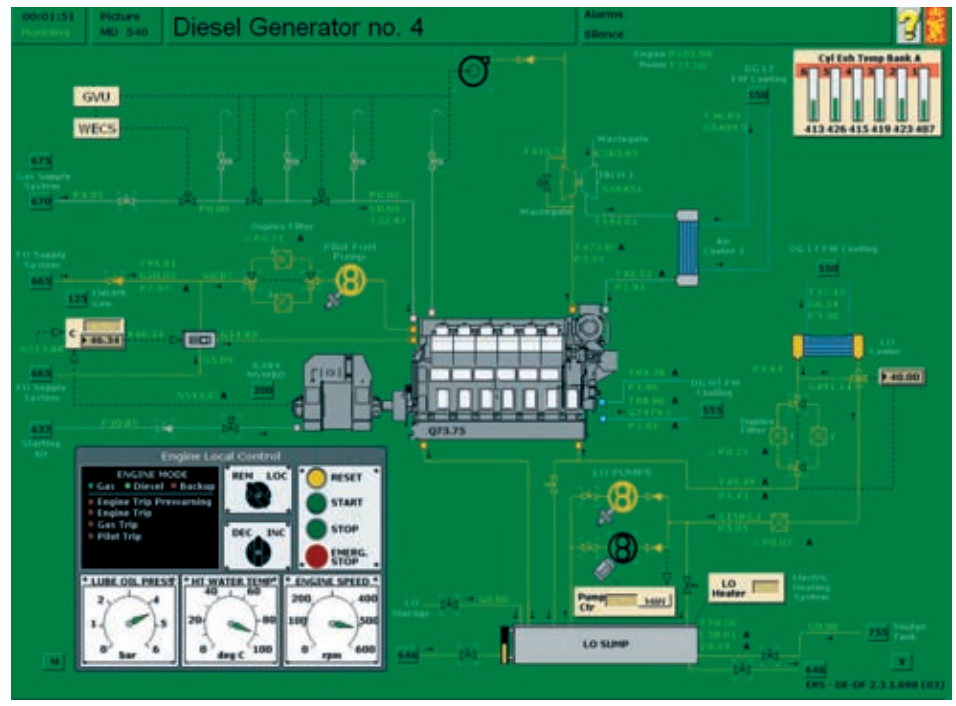
"According to LNG world shipping statistics of all LNG carriers on order, 36 out of 49 have a DFDE configuration. Kongsberg K-chief systems are used to manage and monitor the necessary power and gas cargo supplies on board, so we have an excellent foundation for the new DFDE ERS model."

In other news, Kongsberg Maritime also reports that it is to supply simulators to the MOSAIC 2 facility (Maersk Offshore Simulation and Innovation Centre) which recently began construction at Maersk Training in Svendborg, Denmark.

The framework agreement signed by Kongsberg Maritime and Maersk Training covers delivery of a range of simulators and on-going support to the new training centre, which is an extension of the existing MOSAIC facility in Svendborg that opened in February 2010.

Simulator delivery is scheduled to start within 6 months and includes an Offshore Vessel Simulator that can be configured to operate as various vessels. The simulator will be mounted on a motion platform and will work with Kongsberg's K-Chief 700 automation system, K-Pos Dynamic Positioning Trainer and a Ballast Control system.

Also included is a Neptune Engine Room Simulator with BigView touch screen technology and three new engine models, as well as a Riser Management Simulator and a crane simulator which will be part of the final delivery scheduled for 2013.



The DFDE configuration is included in Kongsberg's Engine Room Simulator

The complete engine room simulator incorporates a number of different simulated systems

The MOSAIC 2 training facility will be installed with Kongsberg simulators

Simulator deal for NCA

www.forcetechnology.com

The Norwegian Coastal Administration (NCA) has entered into a long term contract with FORCE Technology for the provision of simulator based training for 350 pilots and VTS operators.

The five-year contract will focus on training on resource management and teamwork between pilots and VTS operators, and will take place at FORCE Technology's simulator training centre in Lyngby, Denmark.

"We chose FORCE Technology because of their high competence level and their experience gained through many years of conducting training with a strong focus on human factors and pedagogical methods within simulator based training," said Jon Leon Ervik, head of centre for pilotage and Vessel Traffic Services in Norway.

FORCE Technology uses an in-house developed software based on the DEN-Mark1 mathematical model, SimFlex, on its simulators, which the company says has been instrumental in creating a believable simulation experience.

"This is a significant contract for the maritime training department of FORCE Technology," said Peter Sørensen, head of department, training, ports and human factors at FORCE.

"FORCE Technology has been conducting international pilot training and provided input to design of VTS operations for many years and we are very happy that the NCA has chosen our company as training provider. We see this as the result of many years of focused effort on the development of efficient training tools."

New AIS products from Vesper Marine

www.vespermarine.com

Vesper Marine is to introduce two new Class B AIS products to its WatchMate range for 2012, the company reports.

The WatchMate Vision Class B transponder with touch-screen control and a fully wireless Class B AIS transponder black box, AIS XB-8000 are both being launched during the new year.

The company says that they will aim to minimise screen clutter and unwanted targets, allowing the user to concentrate only on vessels that are of importance and to avoid unnecessary alarms.

Four individual alarm profiles are available (Harbour, Anchor, Coastal and Offshore) which can be customised so that the user can switch between profiles.

"We are adding to our existing product line-up with a touch-screen version whilst keeping the same values of the incredibly successful easy-to-use approach of WatchMate, which incorporates our unique feature for the filtering of targets at the user's discretion," said Mike Ogle, general manager of sales and marketing for Vesper Marine.

"We continue to offer the full WatchMate family of intuitive AIS devices to suit the differing vessel types and courses that owners take."

"Users can be assured that whichever WatchMate device they choose, each version provides filtering techniques that reduce the amount of clutter on screen and so enhance safety by ensuring that users focus only on the objects and vessels that are relevant to their safe passage."

Adveto ECDIS for National Geographic

www.adveto.com

Swedish ECDIS supplier Adveto, through its distributor GPS Marinkonsult AB in Stockholm, has secured an order to supply its technology to the expedition ship National Geographic Explorer after the completion of a test and evaluation programme, the company reports.

This vessel will be the first Adveto ECDIS equipped vessel sailing all waters around the world, including the Arctic and the Antarctic.

"GPS Marinkonsult started to work with ADVETO's navigation products many years ago. I must conclude that according to my opinion ADVETO has the best ECDIS on the market," says Göran Sjödin, CEO of GPS Marinkonsult AB.

"ECDIS-4000 from ADVETO has features like multi routes, advanced predictors, alternative night presentation and download of Primar charts and chart updates over Internet directly into the ECDIS. This makes Adveto ECDIS an ideal system for all operations."

The National Geographic Explorer will sail all over the world using the Adveto ECDIS

Nautisk Forlag acquires McCurnin

www.nautisk.com

Chart distributor Nautisk Forlag has acquired 100 per cent of the stock in McCurnin Nautical in New Orleans, with the acquisition having taken effect on January 1 2012.

Nautisk Forlag says that it aims to strengthen its global chart distribution business and enhance its digital capabilities through the purchase.

McCurnin Nautical was established in April 1982, and has worked with Nautisk Forlag since 2008 on digital chart distribution using Nautisk's Neptune software.

"We are very pleased with this acquisition. Our global distribution network has been too inefficient in the USA/ Americas," said Nautisk Forlags CEO Thomas Fjeld.

"Now we [will] gain a new hub which is centrally placed for distribution all over the American continent and sub-continent, in addition to acquiring a profitable company with satisfied customers. We will immediately start the implementation of Nautisk's logistical system, as well as seek a wider customer base."

Patrick Thompson, who has worked for McCurnin as office manager for several years, will continue as general manager of Nautisk Forlag in New Orleans.

Martek Marine has opened a regional hub office in Singapore, which will be headed by Simon Whitaker, as regional director. He will be supported by regional sales managers Soon Young Tan, who will focus on South East Asia, Australia and New Zealand, and Clayton Thomas, who will be responsible for markets in North Asia.

Marine electronics company **Aage Hempel** reports that has opened a new office in Panama, which commenced operations on January 16th 2012. This new office joins other locations such as Spain, Gibraltar, Morocco, Portugal and Malta in the company's sales and service network.

Alphatron Marine has been approved to provide ECDIS training courses on **JRC (Japan Radio Company)** ECDIS systems, adding to an earlier training approval for **Transas** ECDIS. The company can now provide type specific training, class room training at its headquarters, training on location and onboard training.

Transas Marine's German division has become the first German training institute to receive **BSH** Flag State approval for its STCW compliant ECDIS training, the company reports. The training follows the IMO Model Course 1.27 and is compliant with the Manila Amendments to STCW 2010, compulsory for training as of 1 January 2012.

www.martek-marine.com
www.alphatronmarine.com
www.transas.com
www.aagehempel.com

UKHO Information Overlay added to JRC ECDIS

www.ukho.gov.uk
www.jrc.co.jp

UKHO reports that its Admiralty Information Overlay is now available via Admiralty e-Navigator and on JRC ECDIS models.

The Admiralty Information Overlay, a free service to Admiralty Vector Chart Service (AVCS) customers, is available on JRC ECDIS models JAN-701B, JAN-901B, JAN-2000.

UKHO says that the Overlay is the only service to include the worldwide Temporary & Preliminary Notices to Mariners (T&PNM), and also includes the results of UKHO's review of the world's ENCs.

Viewed on e-Navigator, the Overlay allows the bridge team to view and assess the impact of T&PNMs and other navigational information when planning a voyage.

When viewed on a JRC ECDIS, the Overlay is automatically displayed as an additional layer over the ENC to see how T&PNMs may impact a voyage.

"Admiralty sets the benchmark for accurate ENCs with the AVCS, and most of our ECDIS customers rely on the data for their primary navigation," said Tamiho Shinya, JRC.

"It is therefore important for them to have access to this additional information in a simple, integrated way. By delivering compatibility with the Overlay on our newest ECDIS models, our customers can plan and execute voyages with improved safety and ease, and more easily demonstrate compliance during Port State Control inspections."

JRC ECDIS will now have the Admiralty Information Overlay available

In addition to JRC ECDIS, the Information Overlay is also available through Transas Navisailor and the SevenCs ORCA Master Electronic Chart System (ECS).

The Information Overlay will be available through e-Navigator V 2.4 from December 2012.

"The integration of the Information Overlay into both front and back of bridge operations is delivering significant enhancements to the mariners' ability to plan safe and efficient routes and to their situational awareness while executing those voyages," said Ian Moncrieff, Admiralty chief executive.

"It's a further example of our commitment to provide mariners and shipping companies with the accurate and trusted data they need to sail safely and compliantly."

Raytheon bridge for Malaysian and Dutch vessels

www.raytheon-anschuetz.com

Raytheon Anschuetz Singapore has been awarded a contract to supply an Integrated Bridge and Navigation System to a new Platform Supply Ship (OSV) being built at Nam Cheong Dockyard in Malaysia, while a complete Raytheon bridge will also be delivered to a new vessel being built at Bodewes Shipyards.

The delivery in Malaysia to the 79m DNV classed vessel will take place in Q3 2012, and covers four navigation workstations for the front bridge, with radar, chart radar, ECDIS featuring a radar video overlay, and customised conning.

For aft bridge operations, a fully operational conning workstation will also be delivered, while the ship's steering system will feature an adaptive autopilot which works with the ECDIS to create a track control system.

"At Raytheon Anschuetz Singapore we have built up excellence in tailoring solutions to the particular needs of Asian shipbuilding, from standard navigation systems to advanced configurations," commented Jan Lötzsch, managing director of Raytheon Anschuetz Singapore.

"The bridge system for the new PSV is an excellent proof of our capabilities in project engineering, assembly and testing."

Meanwhile, at Bodewes Shipyards, Alewijnse Marine Systems has delivered a complete Raytheon Anschütz bridge system for a ship owned by Nescos Shipping B.V.

The bridge package included X&S band radar, dual ECDIS, autopilot and gyrocompass from Raytheon Anschütz, and was supplemented by VDR, AIS and GMDSS equipment.

"We have many years of experience in the design and supply of navigation and communication systems from many brands across all kinds of vessels," stated Michiel Louwerse, Alewijnse navigation and communications manager.

"Our recent partnership with Raytheon Anschütz allows us to offer a very high quality solution for all kinds of new build vessels, from feeders to workboats."

"The order to deliver the full bridge system for hull number 762 is another step forward in our mission to supply bridge systems in the Dutch market."

ECDIS – a vast pedagogical experiment

While the mandatory carriage requirement for ECDIS will undoubtedly introduce a number of benefits for navigators, international regulatory bodies have created a huge potential problem trying to force through these changes without proper regard for the availability of the training that will be required to make sure the technology is used safely, *writes Prof Capt Ralph Becker-Heins, Safebridge*

Electronic Chart Display and Information Systems (ECDIS) represent the navigational future. Used properly, they offer substantial advantages over the old paper and pencil method, a continuous plot of the ship's position, warnings about navigational hazards in the vicinity, and improved safety.

A huge bonus is the ease of correction compared to the labour-intensive manual correction process necessary with paper charts, which would drive a navigator with a world chart folio mad.

So why is there some apprehension about the now mandatory process that will see the world fleet fitted with ECDIS over a six year period? What is there to be afraid of in this hugely positive technological development?

A number of major concerns do remain about the adoption of electronic chart systems. None are new but, as with many developments that are enthused over by the manufacturers who have produced the new equipment, it is the translation from theory into practice that tends to be glossed over.

The cat's pyjamas

During the developmental stage of ECDIS and its performance standards, insufficient emphasis was given to the need to develop a common presentation with standardised nomenclature and controls. This might be no great surprise – radar sets and most navigational equipment are subject to the same problems.

The new, high technology, equipment that is found on ships today has been developed by manufacturers who build their products with input from more than one industry.

In the case of ECDIS, information technologies merge with existing navigation procedures, the presentation of hydrographical data with ship systems automation, ergonomics with education.

It makes available a volume of information that in itself poses a problem to the inexperienced user (data saturation), yet every equipment and chart supplier alike is totally convinced that his equipment is the cat's pyjamas.

Why? Because each one is selling a commercial product, adding bells and whistles to 'improve' the capabilities of his equipment and differentiate it from the competition.

The range of different ECDIS systems too is becoming a headache, one that is made worse not only by shipowners´ technical departments not liaising with the crewing department but also by manufacturers fighting to get a competitive edge.

Currently some 30 manufacturers are flooding the ECDIS market with more than 40 different types of ECDIS making use of numerous different visualisation kernel brands.

Different nomenclature is used for identical functions, one uses a trackball where another uses a mouse, default brilliance settings are not the same (in spite of specific guidance on this point), etc., etc.

One of my students, who has actually written his thesis on the risks represented by the variances in terminology, realised very quickly that there is no defined, standard, terminology: confusion was pre-programmed…

ECDIS training

In trying to force the implementation and use of ECDIS (it has been around for some 20 years) as the primary navigation device with the objective of increasing safety, the international regulatory bodies have shot themselves in the foot.

They have created an environment where the bulk of the effort and costs are aimed purely at achieving ECDIS compliance on the basis of available equipment and all other considerations that contribute to safety of operation have more or less fallen by the wayside.

To be more succinct, no regard has been paid to the human factor, to the usability, in the implementation of the new technology in an area where the human being is still the primary operator and decision maker.

Let us be clear, the changeover from paper to electronics represents a major change, and one that has important implications for training and bridge procedures.

An ECDIS is not something that can be installed by the manufacturer, with a few reassuring words offered to the crew in residence, which is then left to make the most of this exciting piece of kit.

Indeed, there have already been groundings where precisely this indifference had been adopted and had contributed to the mishap.

Let me put this into context: have you ever bought a new mobile phone and tried to use it without reading the instructions? Would you like to be doing that whilst driving a 250,000 ton tanker?!

Perhaps it is the computer age we live in, when few of us ever receive any formal training in the equipment we have to use every day, which produces a mindset that regards an ECDIS as just another sort of business machine to become used to, when it is, for a navigator, a major 'change of course'.

So training does become a very much more serious matter: 'generic' training, which introduces the navigator to the principles of ECDIS, is absolutely essential as a precursor to type training, which will ensure that the navigator is capable of operating the equipment fitted to the ship he or she will sail in.

It is the development of this training that is still the subject of debate over its length and extent at a time when equipment is already being fitted to new ships and retrofitted to others.

This also has implications for the movement of officers around a fleet, especially where different types of ECDIS equipment are fitted, as officers will then be required to undergo additional periods of familiarisation when they change ships, making them less flexible from a personnel department's point of view.

The usability of commercial ECDIS software tends to range from difficult to verging on the impossible. ECDIS uses expensive software doing an important job, on what may be a large and very expensive vessel. Surely it should be designed to be easy and straightforward to use?

Oddly enough this is often not the case. There are several reasons for this:

- The official ECDIS standards do not lend themselves to useable software. For example, the performance specification for ECDIS is over ten years old so naturally it is based on ideas and technologies that were prevalent ten years ago.

  At the time the standard was written there was not much around in terms of marine navigation systems and chart data. So rather than just drawing on best practices and experience, the standard also needed to present a vision of how the committee thought that navigation software ought to be: a nearly impossible task no matter how good their crystal ball was.
- So designing ECDIS compliant software that is also usable is difficult in the first place, but it gets worse. Given a realistic situation of limited budgets and resources, the focus of the development effort tends towards the need for compliance.

  Usability is a secondary issue since unless the ECDIS can be certified as compliant with the standards it cannot be sold as an ECDIS.
- Actually getting the software certified is a time consuming and expensive business. I am talking many months and thousands of dollars here. It is not trivial. And here comes the catch: once the software is certified then it cannot really be changed without having to be re-certified.
- Ship owners are tight fisted. Typically they will not spend a penny more than necessary on equipment so as long as it meets the regulations – at which point it is usually the cheapest system that will do.

  I am not saying this is wrong – running a ship is a fantastically expensive business, but it does tend to make for comparisons based on simple cost rather than other factors. A particular company's software may be easier to use but if it is more expensive than its rivals then it will be hard to sell.

S-Mode

S-100 is the chart data standard intended to replace S-57 at some point in the future.

The groups working on this have recognised that a typical ECDIS can be a bit tricky to use. They have also noted that each ECDIS tends to be tricky in a different way, so they have come up with a solution called 'S Mode'.

The basic idea is that every ECDIS has a button which will set it into S Mode. In this mode the controls, menu options, settings and so on will be exactly the same irrespective of which company made the ECDIS.

Maritime training has traditionally focused on classroom-based instructor training

jrceurope.com/**ECDIS**

For professional seafarers

Our ECDIS systems are one of the world's most advanced and future proof e-charting solutions available today. But there's much more to it...

Globe *i*Fusion®

Communications Made Simple!

Introducing Digital Quality Voice for FleetBroadband!

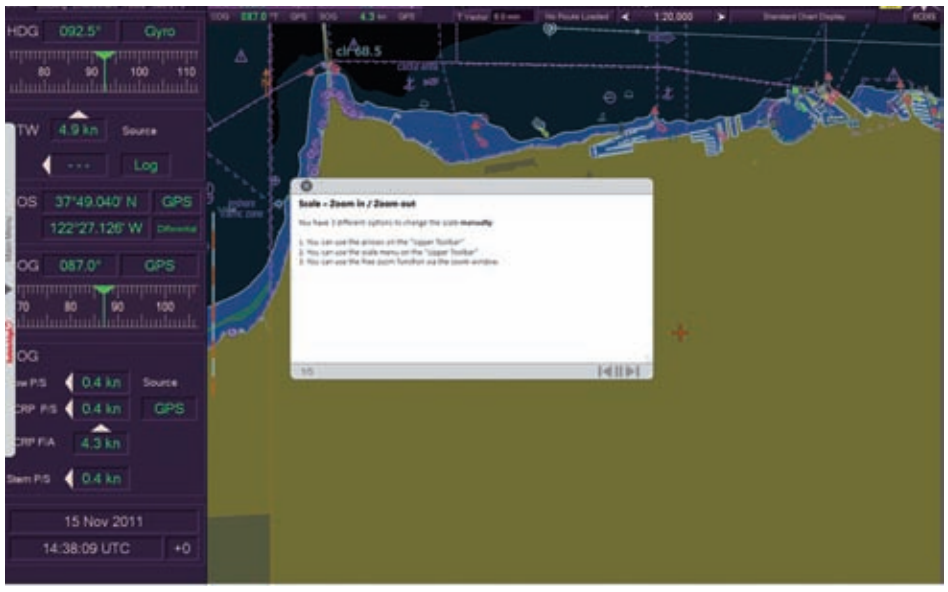
- The first FleetBroadband to support multiple voice lines
- Superior voice
- Inexpensive shore to ship calling using standard U.S. numbers

- Caller ID: incoming and outgoing
- Free onboard mobile to mobile calls
- All calling features supported from GSM phone
- GSM services available on over 800 vessels

Please see us at:

- Digital Ship Hamburg (Booth 22) 1 February 2012 and
- Digital Ship Scandinavia (Booth 18) 28 February 2012

GLOBE WIRELESS®
www.globewireless.com
Phone: +1 (321) 308-0112
sales@globewireless.com



Today's seafarers are more comfortable working and learning in virtual environments

This is such a beautifully naive notion – it says 'we're a bit scared of this software so let's make it all the same'.

Of course, the companies developing ECDIS would implement S Mode but they would almost certainly stop there – where would be the incentive and budget to do anything more, where the competitive edge, when human nature would guarantee that only the S Mode would be employed?

Everything would boil down to cost. How else would you differentiate between systems that all look and feel the same?

Do you seriously for one moment think industry will go there? That is the route to stagnation and a dead end; it is in complete contradiction to the dynamic of modern business - and so we come back to training.

The pedagogical experiment

There is only one way to make software more usable and that it to allow software developers to experiment. They have to try out ideas and find out what works – and with whom, for no two people are alike in their learning capabilities.

It is very difficult; in fact it is amazingly difficult and it takes time, which we do not have.

With ECDIS, new navigation equipment has been introduced into the world's merchant fleets well ahead of the development of any sort of formal training requirements for that new equipment.

For decades maritime training institutions, but also STCW training requirements, followed their own training pedagogy. That was heavily grounded in teacher-centric, classroom-based lectures that methodically advanced students through each of the skills in a series of lessons.

Often the instruction was based almost exclusively on such explicit learning techniques with little emphasis on instructor guided, implicit learning (learning by doing).

Back then, students were assumed to be linear thinkers, which is not a natural condition, and not very technologically savvy. But modern students are very comfortable using quite sophisticated telecommunication and computer gaming technologies.

If we are honest, today's students are normally more comfortable in these virtual environments than their instructors. Because of that, increased experimental learning (that is student-centric) in a controlled interactive environment (simulation) is suited as most appropriate for becoming familiar with a new ECDIS device.

Training is the bridge but there is also an overwhelming need for user feedback to ensure that ECDIS actually delivers the safety benefits expected by the industry. How can the training branch provide this bridge and assess the human needs?

And, finally, why do I refer to it as a 'vast' experiment?

Estimates indicate that there are at a minimum some 250,000 officers out there requiring ECDIS training. If we look at the next six years to come (the implementation period of ECDIS on board the ships) this means 250,000 training events for generic training.

But additionally some 750,000 training events for type-specific ECDIS familiarisation, e.g. an officer will be confronted with an unknown ECDIS when changing the ship, but also when staying with the same model of ECDIS, as the ECDIS manufacturer may have released a major ECDIS software upgrade for his brand.

The industry has to further develop quality equipment based on best practice.

However, the underlying trial-and-error method has to be accelerated to collect user feedback on a large scale, and without undue delay, from which to better understand the users' needs, revise the parameters and then improve the system before having the navigation systems of the future tested again. DS

Prof. Capt. Ralph Becker-Heins is a Professor of Navigation and Director of Safebridge, a Hamburg-based maritime training company specialising in online, type-specific, ECDIS simulation training.

This article has been adapted from a presentation delivered at the IAME 2011 conference. To read the original paper, visit the Safebridge website at: www.safebridge.net/node/82.

The Connecticut
Maritime Association
Presents

SHIPPING 2012

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

March 19, 20 & 21, 2012
Hilton Stamford Hotel
Stamford, Connecticut

GAME CHANGERS

CONNECTICUT MARITIME ASSOCIATION, INC.

Produced by International Marketing Strategies, Inc.
Tel: +1.203.406.0109 ext 3717 • Fax: +1.203.406.0110
Email: conferences@cmaconnect.com • Website: www.shipping2012.com

www.shipping2012.com

Space-based AIS continues to develop

Space-based AIS provider ORBCOMM has announced that it has successfully launched VesselSat2, an Automatic Identification Service (AIS) enabled satellite, while competing provider exactEarth has announced three new orders for its global vessel tracking and monitoring system, exactAIS.

ORBCOMM's new satellite was built by LuxSpace Sarl, an affiliate of OHB System AG, and was launched by the China Great Wall Industry Corporation from the Tiayuan Satellite Launch Center (TSLC) in the Shanxi Province of the People's Republic of China on January 8, 2012.

The company reports that the satellite was successfully deployed from the Long March launch vehicle into its proper polar orbit.

After successful completion of in-orbit testing and check-out, VesselSat2 is expected to provide complete global AIS coverage, including the North and South Poles. It is expected to enter into commercial service before the end of the first quarter of 2012.

ORBCOMM is the exclusive licensee for the AIS data collected by VesselSat2 as well as VesselSat1, which was launched into an equatorial orbit on October 12, 2011, and is now providing commercial service.

ORBCOMM says that combining this existing satellite with the new VesselSat2 will provide higher probability of vessel detection, greater refresh rates, and improved message delivery speeds for its AIS users worldwide.

"We are excited to announce the successful launch of VesselSat2, enabling ORBCOMM's satellite AIS service to provide complete global coverage," said Marc Eisenberg, CEO of ORBCOMM.

"AIS users will experience an even higher quality of service, including lower latency and optimal data delivery, solidifying our market leadership and bringing us another step closer to providing unmatched AIS service as we deploy our next generation constellation."

VesselSat1 and VesselSat2 will also supplement ORBCOMM's next generation (OG2) constellation of 18 AIS-enabled satellites that currently are under construction.

ORBCOMM recently announced an updated launch schedule for the OG2 satellites, which includes launching the first OG2 prototype satellite on the first Cargo Re-supply Services (CRS) mission in mid-2012, followed by an additional launch of two OG2 satellites into a high inclination orbit as a secondary payload in late 2012.

In early 2013, the company plans to launch eight to twelve OG2 satellites, and the remainder of the constellation of 18 OG2 satellites is expected to be launched in 2014.

All launches are to be performed by Space Exploration Technologies (SpaceX), and are expected to be on Falcon 9 rockets. The AIS technology will be carried as a secondary payload on other SpaceX spacecraft launches.

ORBCOMM says that the inclusion of two OG2 satellites as a secondary payload on a high inclination insertion orbit will enable it to significantly improve messaging services in polar latitudes.

Additionally, it should provide the ability to thoroughly test and verify OG2 satellite performance before the primary launch of eight to twelve OG2 satellites.

"We are pleased that SpaceX has offered ORBCOMM this opportunity to launch two satellites that will help our customers using our OG2 messaging services, and additionally augment service to our maritime Automatic Identification System (AIS) customers that benefit from coverage at higher inclinations," said Mr Eisenberg.

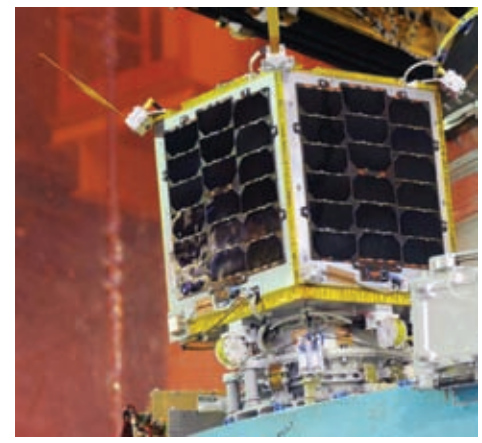
"The net outcome of these revised launch plans has us launching OG2 satellites at a faster pace with less risk."

Space-AIS orders

Competing satellite-based AIS data provider exactEarth meanwhile has received three new orders for its services from different governments.

The governments of Australia and Singapore are both new customers for the service, while another existing customer, the Canadian Government, has signed a new contract to use satellite AIS data to support a range of applications including maritime surveillance and security, traffic monitoring, environmental protection, and search and rescue operations.

exactAIS uses an AIS receiver-equipped satellite constellation and its own processing technology to deliver a wide overview of vessel locations.



VesselSat1 Photo: ISRO

"With these recent customer wins we have now surpassed $10 million of orders booked in the last twelve months," said Peter Mabson, president of exactEarth.

"This news caps a very successful year highlighted by the further expansion of our satellite constellation. We are constantly demonstrating the benefits of exactAIS to maritime authorities worldwide and this continues to result in new customers."

"It is a testament to our global capability to see that exactEarth now has customers spanning five continents across the world and, as recently reported, we delivered more than 3 billion AIS messages to these customers over the past year. We expect to gain further market traction in fiscal 2012 as we add to both our in-orbit and ground-based infrastructure." DS

Navigational distractions

An unfortunately common contributory cause cited in marine accidents is the failure of navigators to competently apply the modern technologies in use on today's vessels. However, whether using computer based systems or traditional methods, good training and good watchkeeping have a greater influence than the technologies themselves, *writes Dr Andy Norris*

As reported in *Digital Ship* last month, the London P&I Club is right to warn that technology can cause costly distractions. The examples of this range from seemingly obvious misdemeanours to subtleties that justify why a watch officer has to be so carefully trained and subsequently kept well informed.

However, many of the obvious distractions, such as accessing the web or dealing with personal e-mails while undertaking a watch, are not really a technology issue.

It has always been easy to compromise good watchkeeping, for instance by reading a magazine or scribbling a letter, activities which are obviously equally distracting when compared to their more modern equivalents.

Banning web technology from a bridge is certainly not a solution. Used appropriately – and not by the watch officer – it can usefully provide additional information to the bridge team in support of the safety and efficiency of the ship.

As we enter the e-navigation future the OOW will actually need to be regularly accessing web-based information, but the activity, by legislation and design, will necessarily be far removed from the normal diversional experience of web-browsing.

Distraction arising from the misuse of navigational displays is the more difficult task to eradicate, not least because there is generally no right answer as to how a complex display, such as radar or ECDIS, should be optimally set in any given situation.

The problem today is that we are needing to navigate ever more safely in increasingly demanding situations. This is only possible by having access to increasingly detailed information.

The skill is always to have the right level of information available and not be distracted by irrelevant detail.

The radar display

Radar forms a good example of the problems that the wrong decisions on display settings can give. In fact it has suffered from display detail issues since it was first introduced to merchant vessels over 60 years ago.

Leaving aside problems of inappropriate range scale selection, the historical problem with radar was associated with incorrect settings of the gain and clutter controls allowing critical targets to be missed, either because they didn't paint a return at all or because returns were hidden in a visual overload of displayed noise and clutter.

Modern signal processing technology has significantly simplified the setting-up of a good basic radar image and it appears that few incidents are now caused by incorrect settings of these controls.

Today, the main problems arise from the steadily increasing functionality of radar and the amount of complex information that can be displayed at any one time.

A considerable amount of data is now provided outside the radar circle. However, this is normally quite well laid out, with few operator options on its use, and does not seem to create significant distraction problems for anyone familiar with the particular system.

Even so, the detailed layout of this area varies considerably from system to system, underlining the need for proper familiarisation of the equipment before undertaking a watch, especially as it has become the main area used in the control and indication of user-set parameters.

The real potential problem facing the user lies within the radar circle. So much information is available for display that an unskilled operator can easily fill it with a density that can totally obscure a developing critical situation.

For example, the data available on a modern radar display includes colour coded radar returns, AIS targets, target trails, tracking vectors and identifiers, own ship heading line and past track, navigation lines, routes, maps, range rings and parallel index lines.

Also, radar displays are now increasingly offering the option of being able to show ENC data – which, despite its great usefulness, also unleashes more display misuse possibilities.

Target tracking

Modern radars for large vessels typically permit the simultaneous tracking of 200 targets – 100 each of radar and AIS. It is this capability, in particular, that can create display confusion when inexpertly used.

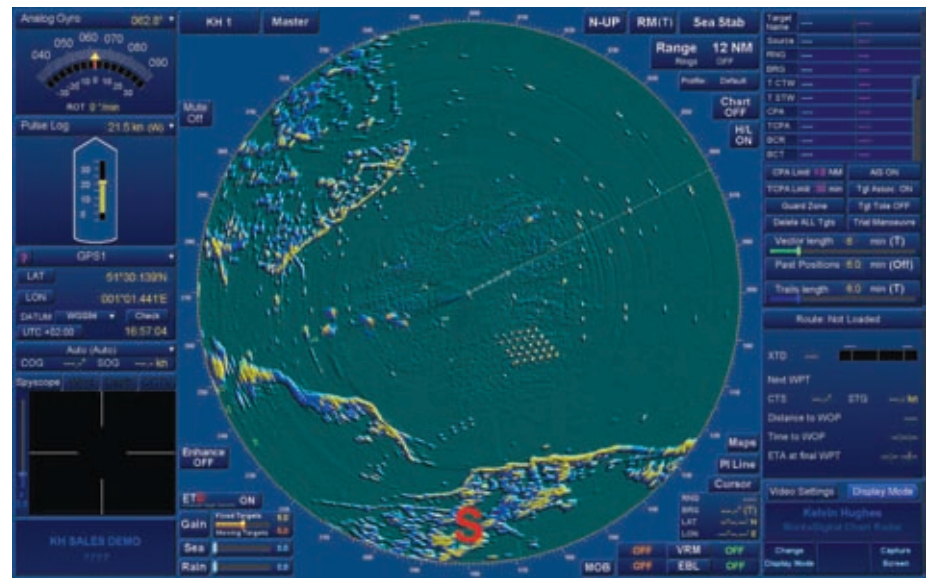
It is probable that some users erroneously think that if everything possible is being tracked by both radar and AIS then the collision alarms will always provide an alert to any possible problem.

However, the mass of vectors and identifiers that can arise, particularly with many overlaid radar and AIS tracked targets, can prevent a good appraisal of the real issues. In addition, automatic collision alerts are more likely to be confused with the wrong targets because of the crowded display.

A mindset that assumes that an automatic warning will be given for any potential problem detaches itself from a proper understanding of the ever-evolving situation. Even worse, it wrongly assumes that current technology will always identify a potential problem.

It is difficult to argue, however, that the tracking capability of radar should be reduced to prevent any misuse, simply because the number of targets being ideally tracked is so situation dependent.

Also, as so frequently argued in this column, AIS and radar used together greatly enhance the ability of the user to assess the integrity of the perceived situation.



Over 60 years radar has evolved to reduce initial problems with display settings, but other issues remain

For the current situation, a skilled user will readily decide on a good option that will avoid a confusing display, while still retaining an integrity monitoring capability for critical targets.

This could include the judicious use of the target association functionality, which decreases the display complexity of targets that have been acquired by both radar and AIS.

In the not too distant future it can be envisaged that radar processors will be forming 'sleeping' tracks on all targets, both by radar and AIS. The tracking controls of the operator will just select which targets will actually display basic tracking information on the display, such as course vectors.

Sleeping tracked radar targets would still trigger collision alarms, just as can be set today for sleeping AIS targets.

The instant availability of tracking data would help de-clutter the scene as most targets could be left without vectors being shown, with perhaps the display set to show trails or past position plots of a sensible length for all moving targets.

On-going training

Some of the set-up issues with modern radar appear to arise from the poor and even non-existent training that some users have received on AIS, and particularly with using AIS on radar.

This was underlined at a recent gathering, when a number of serving watch officers appeared not to understand the term 'sleeping AIS targets', even though they were using modern AIS enabled radar displays at sea.

Perhaps it was just the term that baffled them. However, knowledge of the concept of sleeping AIS targets is critical when de-cluttering a modern radar display, particularly when AIS is being used to its fullest potential in providing integrity enhancement.

A major problem is the mindset of much of the industry, thinking that radar training is a fixed learning experience that forms part of the fundamental education of watch officers and remains valid for life.

The safe navigation of a vessel is a difficult task and OOWs should rightly be proud of what they do. However, just like medical doctors, they all need to be kept properly abreast of modern developments.

This is the only way that they will continue to make judicious use of all the technology provided on the bridge. If this is ignored, the distraction potential of newer systems could become an increasingly dominant issue.

Often the question is asked 'why do we need change from what we have now?' The fundamental answer to this is that humans, through their governments, demand ever-increasing levels of safety and environmental protection, at the same time as demanding affordable and easily available products.

The present navigational aids on ships are inadequate to meet these increasing end-customer demands. Just as problematic, on many occasions they are still far from meeting the present demands of the OOW. Ongoing change is therefore inevitable.

What we have to ensure is that we keep the OOW properly engaged in obtaining a full understanding of the present situation.

Automatic alerts from the technology should rarely come as a surprise, not least because the OOW is maintaining his or her own skills in setting up clear displays populated with relevant detail. 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

KNS THE NEW STANDARD OF MARITIME COMMUNICATION

Connecting You to a Brighter Future

All New KNS SuperTrack Series

As a longstanding partner of maritime industry, a field where connection is of vital importance, KNS develops all its maritime antennas according to the highest standards of sturdiness and functionality. In 2012, we introduce all new SuperTrack Series for marine stabilized antenna systems for satellite communications, satellite television-at-sea (TVRO), broadband at Sea, voice and data services with upgraded performance. This year, we promise to connect you to a brighter future. For more information on the all new KNS SuperTrack Series, please call us at +82-42-932-0351 or visit us at www.kns-kr.com

KNS
1314, Gwanpyeong-dong, Yuseong-gu,
Daejeon, South Korea, 305-509
T +82 42.932.0351 **www.kns-kr.com**

SATELLITE 2012

See us at #593

www.intelliantech.com

TRUST AN ANTENNA DESIGNED TO A HIGHER STANDARD.

In designing our new VSAT antennas,
Intellian engineers started with a clean sheet of paper.
Components and systems were analyzed and refined.
Intense vibration, shock and stress simulations eliminated potential weak spots.
Rigorous quality controls were put in place during manufacture.
All done so you get sea-worthy – and trustworthy – performance right out of the box.

When you're choosing an antenna for your VSAT system, specify Intellian.

Get a higher standard of performance by design.

Intellian®

VSAT Performance by Design

Global Offices Seoul • Innovation Center • Busan • Irvine • Seattle • Rotterdam
APAC +82.2.511.2244 **Americas** 888.201.9223 **EMEA** +31.1.0820.8655