

ECDIS today:

talking navigation

INSIDE ISSUE SIXTEEN:

IMAREST PRESIDENT'S DAY

NAV 07 CONFERENCE

SAFETY IN THE STRAIT

SHIPMANAGERS' FORUM

DEFENCE: NAVIGATION STANDARDS

PORT PROFILE:
UNITED ARAB EMIRATES

Welcome to Issue 16.

THE ECDIS today team had a busy time at the Europort Maritime exhibition in Rotterdam and we were delighted with the positive messages and encouragement we received from readers, who visited our stand, on some of the recent changes we have made to the magazine.



Inside this issue on page 5 we look in more detail at the IHO CHRIS committee meeting which took place alongside Europort in Rotterdam.

We also once again continue to talk navigation with pages 8&9 dedicated to the Nav 07 Conference, pages 10&11 on navigational safety in the Malacca Straits and 12&13 featuring a roundtable discussion on perceptions of electronic charting.

The magazine also takes a look at safety standards on ships focussing on the Paris and Tokyo MOU Inspection Campaigns on pages 16&17 and quality standards in charting on pages 18&19.

We continue with reports on the maritime Defence sector on pages 22-25, profile the ports of the United Arab Emirates on pages 20&21 and preview the London Boat Show for leisure mariners on pages 26&27.

Jayne Fitzsimmons

At ECDIS Today we are always looking for new ideas, feedback and contributions. If you have something to say or would like to get involved, please contact me:

editor@ecdistoday.co.uk

CONTRIBUTING WRITERS



Guy Anderson is Editor of Jane's Defence Industry magazine, author and editor of Jane's World Defence Industry yearbook, industry editor of Jane's Defence Weekly, and a regular contributor to the UK Defence Forum.



Paul Bartlett read Nautical Studies at Plymouth before joining Seatrade Magazine as a journalist. Though now working for himself, he is still involved in shipping project finance, as well as maritime communications and labour.



Nigel Kitchen started his marine media career with The Motor Ship. He now works as a freelance marine journalist and PR consultant and has also been involved in creating, running and speaking at numerous ship management related conferences.



Iain MacIntyre has established a niche as an independent transport industry writer, following the creation of their New Zealand-based company MacIntyre Public Relations in 1987.



Dag Pike is a world-renowned sailor and marine writer, he has had 24 books published since 1974. He has written many articles covering all aspects of shipping, yachting and workboats, both in terms of marketing and technical matters.



Nick Roberts-Alatti started out at Cater's News Agency before moving to the Birmingham Daily News. After spending time teaching journalism, Nick became content editor for the Exeter Express and Echo. Nick turned freelance in 2005 and has recently written for the Sunday Express, the Mail on Sunday, New! magazine, Fresh magazine and Practical Family History. He also works as a tutor for the London School of Journalism.



Neville Smith is Associate Editor at Lloyd's List and has been reporting on the international maritime industry for ten years. After four years managing the development of the Lloyd's List internet edition, he was appointed Associate Editor in September 2004.



Chris Watson has been a journalist for over ten years having worked as a reporter and feature writer with a range of newspapers and media groups including Haymarket Publishing and Teletext, and as sub-editor and designer with daily regional newspapers the Plymouth Evening Herald and the UK's evening newspaper of the year 2004, the Exeter Express & Echo.

EDITORIAL DISCLAIMER

No part of this magazine may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior written permission of the United Kingdom Hydrographic Office. The views of the authors expressed in ECDIS Today are not necessarily those of the publisher (The United Kingdom Hydrographic Office). This is a free of charge publication for subscribers, subscribe at www.ecdistoday.co.uk

CONTENTS

4 NEWS & EVENTS

5 INTERNATIONAL NEWS

THE International Hydrographic Organization (IHO) has pledged at a committee meeting in Rotterdam to continue to work with industry in developing standards for ENC's.

6 IN FOCUS: IMAREST PRESIDENT'S DAY

THE UK Hydrographic Office, the Royal Navy and QinetiQ give a taste of where they are headed 'In defence of the future' Chris Watson reports.

8 TALKING NAVIGATION: NAV 07 CONFERENCE

ECDIS Today writers Nigel Kitchen and Dag Pike take a look at some of the big issues discussed at the Royal Institute of Navigation's NAV 07 conference 'Are We There Now?'

10 TALKING NAVIGATION: SAFETY IN THE STRAIT

NEVILLE Smith looks at the latest developments in navigational safety in the piracy hotspot which connects the Indian Ocean to the Pacific Ocean.

12 TALKING NAVIGATION: SHIPMANAGERS' FORUM PART ONE

Attention needs to be paid to the quality of charts used in ECDIS, writes Nigel Kitchen.

14 UP CLOSE AND PERSONAL: MARITIME UNION CHIEF BRIAN ORELL

MARITIME union chief Brian Orrell is now general secretary of Nautilus UK, the union for maritime professionals at sea and ashore.

16 STANDARDS: SHIPS' SAFETY MANAGEMENT

BOTH the Paris and Tokyo Memorandum of Understanding on Ports State Controls are running parallel concentrated inspection campaigns. Neville Smith and Ian MacIntyre look at its implications.

18 STANDARDS: ISO ACCREDITATION FOR CHARTS

ATTENTION needs to be paid to the quality of charts used in ECDIS, writes Nigel Kitchen.

20 PORT PROFILE: UNITED ARAB EMIRATES

PAUL Bartlett reports on how the thriving port industry in this part of the Middle East is continuing to expand and adapt to the needs of shipping.

22 DEFENCE: EU JOINT COLLABORATIONS

GUY Anderson looks at the long road ahead for EU countries in creating joint collaborations in the defence sector.

24 DEFENCE: NAVIGATION STANDARDS

WAYNE Hoyle, Vice President and General Manager of Canada's Offshore Systems Limited, argues that what was once a clear separation between the needs of the two sectors is now, thirty years on, at the point of convergence.

26 LEISURE: LONDON BOAT SHOW PREVIEW

THE London Boat Show takes place from January 11-20 at London ExCeL and yachting expert Dag Pike takes a look at some of the best new navigation tools on the market.

28 LIFESTYLE: GLOBAL ADVENTURER JASON LEWIS

GLOBAL adventurer Jason Lewis has just completed an epic 13-year journey circumnavigating the world by using only 'human power'. He tells ECDIS Today's Nick Roberts-Alatti about his incredible trek and the importance Admiralty Charts played in it.

30 NEED TO KNOW: FACTS ABOUT CHARTS AND CARRIAGE REQUIREMENTS PART 2

PART two of our lowdown on the second edition of the guide **Facts about electronic charts and carriage requirements**.

31 CONTACTS & TECHNOLOGY: PORTABLE SAT-NAV SYSTEMS

JUST as ships are stepping up the use of ECDIS for navigation much the same is happening back on dry land with road users increasingly using satnavs.



CONVERGENCE OF COMMERCIAL AND DEFENCE NAVIGATION REQUIREMENTS

BY WAYNE HOYLE, VICE PRESIDENT AND GENERAL MANAGER OF OFFSHORE SYSTEMS LIMITED.

WAYNE Hoyle, Vice President and General Manager of Canada's Offshore Systems Limited, which has been providing ECDIS to Marine and Defence customers since the late 1970's, argues that what was once a clear separation between the needs of the two sectors is now, thirty years on, at the point of convergence.

Ever reducing budgets in both the commercial and military sectors and the desire for predictable through life costs are driving them to a convergence point in terms of technology.

More and more Military ECDIS users are seeking International Maritime Organization (IMO) accredited systems and in some instances training courses and ultimately paperless bridges. Likewise, more commercial customers wish to appreciate the through life cost associated with the technology, something military customers have focused on for a number of years. The accreditation of systems against a pre-defined independent standard has been common in both the Defence and Merchant Marine sectors. The IMO, in its partnership with the International Electro-technical Commission (IEC), has made great strides to formalise the standards for navigation which appear to be increasingly more acceptable to military customers, possibly a result of greater pressure on budgets and a

realisation that commercial standards can make certain military equipment fit for purpose.

The emphasis on no interference from other emitters and the robust design requirements of a Military Specification or Defence Standard compliant system has historically made it difficult for commercial off the shelf systems (COTS) to achieve compliance.

For example, the IEC 60945 standard has evolved over time and is now a viable alternative to many aspects of the more onerous Mil Spec 461 or Def Stan 59-41. This makes the suitability of COTS systems evermore appropriate for the Defence market, while maintaining the price edge afforded by a commercially produced system. This in turn leads to a clear path between COTS, COTS accredited to an IEC standard such as IEC 60945 and COTS accredited to a military standard such as Mil Spec 461.

Many systems in service with Defence customers have evolved this way, starting as pure COTS items and ending up, through considered design and detailed knowledge of standards, as accredited against all aspects of the military standard.

The assumption that this is hardware centric should be avoided. The

“ The electronic chart is very much with us, from the basic Raster Chart to the highly sophisticated ENC, the later benefiting the military by adding particular value with situational awareness in control and operations rooms ”

accreditation of the software to a recognised standard is equally important and this is where the commercial sector is one step ahead. Military accreditation of software is traditionally reserved for the high-end safety or mission critical systems, where the cost associated with software written in mandated code, running on independent processors with specific fail safe conditions is accepted.

In the commercial sector where the operational imperative means the demands are not as great but the financial and safety consequences are huge, the IMO is insistent on the accreditation of navigation software. This trend is being followed by many military customers who, in nearly all cases require software accredited to IMO standard. In some instances it is going a step further with Navies seeking accreditation for paperless bridges which as well as accredited systems, requires accredited training for navigators.

The electronic chart is very much with us, from the basic Raster Chart to the highly sophisticated ENC, the later benefiting the military by adding particular value with situational awareness in control and operations rooms. Where the commercial sector has accepted mandated requirements such as Automatic Identification Systems (AIS), military users are now realising that they can have IMO compliant navigation

and also gain military advantage from the AIS messages, a capability that is most prevalent in the homeland security arena.

It has long been a demand of the commercial sector to make the most efficient use of personnel. This has been most influential in the development and popularity of the Integrated Bridge System (IBS). Those same trends are seen in the military sector as the cost of personnel is being scrutinised. Increasingly, Offshore Systems' customers are seeking integrated solutions in the new build programmes while maintaining commonality of user interface with legacy non integrated systems. The threat for the military user is changing rapidly. As a result, bridge and control room users need to make use of the available situational data in a coherent and preferably fused manner. The IBS, building on the commercial sector's experiences, is fundamental in meeting this requirement. To the military user, the reduced bridge manning achieved by the IBS is the most attractive element. Beyond this, common-user interfaces between the

bridge and the control centre/operations room makes even better use of highly-skilled military staff and leads to reduced training costs and supply lines.

The concept of understanding and bounding the cost of ownership throughout the life of a product or capability has been pioneered in the military sector. Many of Offshore Systems' customers have clearly defined support requirements stretching for several years. Recent trends illustrate the commercial sector following this lead. Removing uncertainty and the ability to plan for the unknown, as with any extended warranty is at the forefront of this, but there is more to through life support than a long warranty. Software evolves quickly. COTS hardware is never cutting edge for long. Customers not only commit to an extended support period for defect rectification and management but also guarantee themselves use of all future versions of the software and in some cases plan hardware updates that deal with the inevitable obsolescence of COTS hardware.

OOW of a frigate, destroyer or possibly an aircraft carrier?

This is doubtful, but their hardware and software will be very similar, accredited to a standard that is scaled accordingly. These two sets of users (Commercial and Defence) have very similar demands in terms of safe navigation but equally diverse secondary duties.

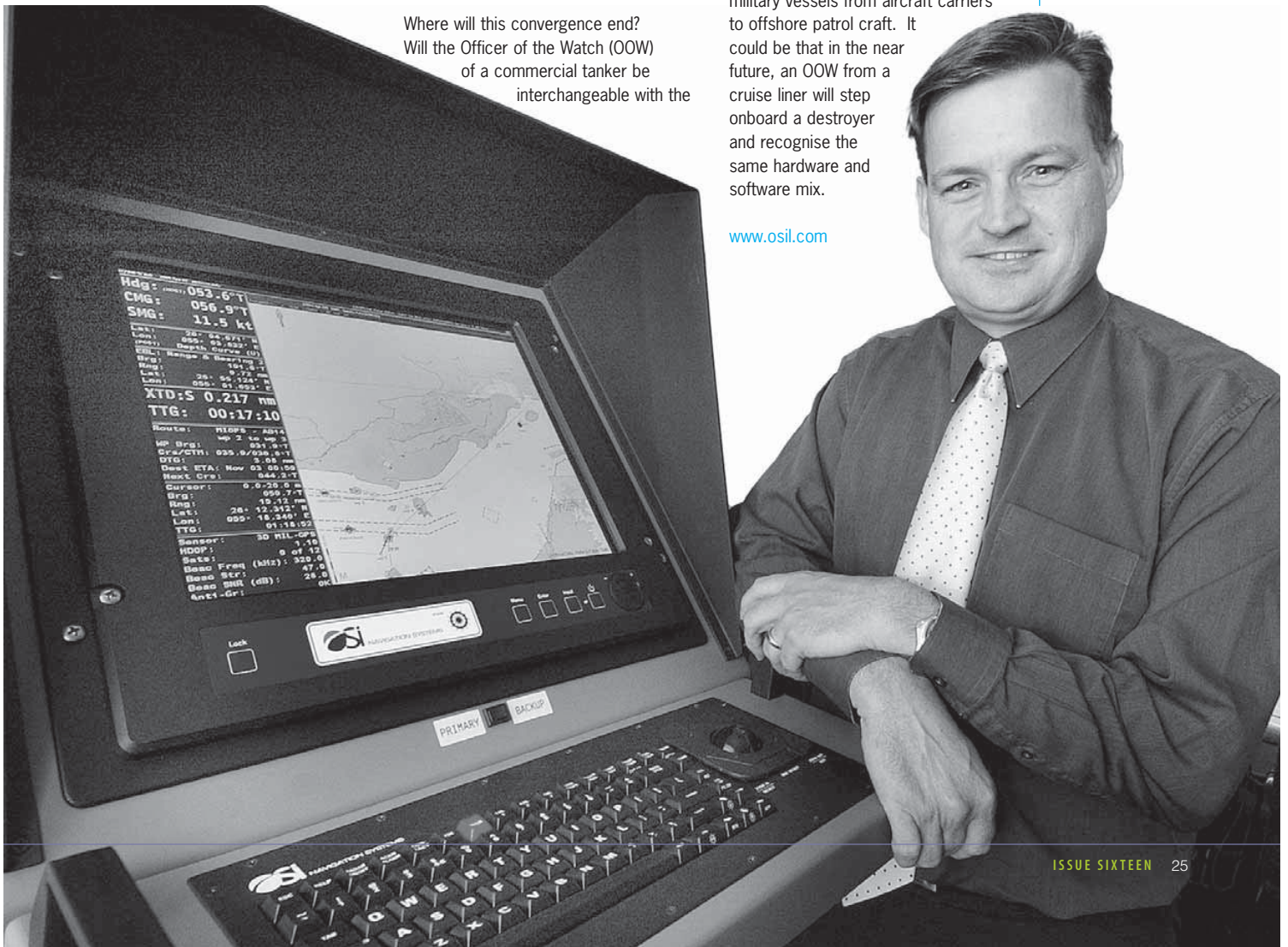
The convergence covers two areas, systems (hardware and software) and standards in watchkeeping. On the human side, with regards to the OOW, convergence will lead OOWs from one sector to recognise the capability of the other and to be able to use the facilities for safe navigation with very little cross over training.

However, on the systems side the convergence is already happening. With bespoke military IBS' offering little improvement in performance to the COTS equivalent, a number of military programmes are looking at how a standard COTS IBS solution can be fit for purpose. This is evident in military vessels from aircraft carriers to offshore patrol craft. It could be that in the near future, an OOW from a cruise liner will step onboard a destroyer and recognise the same hardware and software mix.

“ These two sets of users (Commercial and Defence) have very similar demands in terms of safe navigation but equally diverse secondary duties ”

Vice President and General Manager Wayne Hoyle alongside a ECPINS console (picture credit to Wayne Leidenfrost, The Province).

Where will this convergence end? Will the Officer of the Watch (OOW) of a commercial tanker be interchangeable with the



www.osil.com