

Digital Ship

March 2010

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Out of date charts lead to accidents

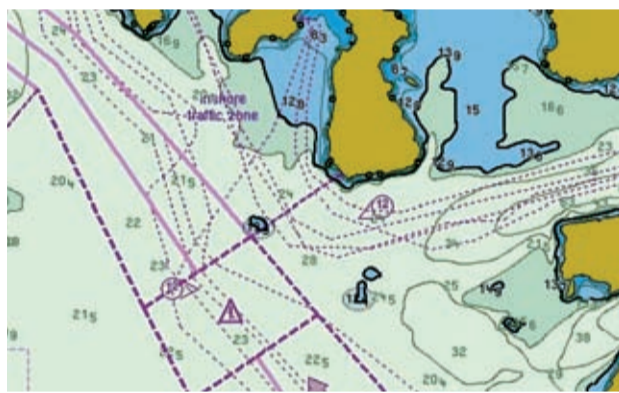
The London P&I Club has released a bulletin warning of the danger of navigating with incorrect and out-of-date charts, citing this issue as a contributing factor in a number of claim cases – a situation that could be vastly improved through the use of navigational technologies

The London P&I Club's latest StopLoss Bulletin contains a warning about the possible consequences of sailing with navigational charts not containing the latest updates and corrections, noting that it has seen a number of cases arise from the use of older, incorrect data.

The Bulletin says: "The International Convention for Safety of Life at Sea (SOLAS) requires that, 'All ships should carry adequate and up-to-date charts, sailing directions, lists of lights, notices to mariners, tide tables, and all other nautical publications necessary for the intended voyage.'"

"Yet, from time to time, the Club receives a report from a ship inspector that the charts or other nautical publications on an entered ship are out of date. Two incidents reviewed recently by the Club emphasise why compliance with the requirement is imperative."

"In the first case, a telecommunications company alleged that a submarine cable had been damaged by a ship's anchor. The first assumption was that, if the anchor had con-



Ship inspectors are still finding charts and publications on ships that have not been updated

tacted the cable, then it must have been because it was dragging and the ship had not been able to recover the anchor in due time."

"However, the Club-appointed surveyor quickly established that the ship had, in fact, anchored directly over the cable but that the bridge team had

been completely unaware of the hazard beneath them. The surveyor identified that the ship had used an old edition of the chart, which predated the laying of the cable."

"Apparently, on preparing the passage plan, the second officer had not checked that he had the current edition of the chart."

"In the second case, the investigation into the circumstances in which a ship suffered damage as it struck a hazardous wreck confirmed that the current

edition of the chart was in use but that it had not been properly corrected."

"A chart correction showing the wreck had been issued some three years previously."

The Bulletin also recounts some of its inspectors' experiences in reviewing passage plans created by onboard navigational teams, observing that its ship inspection programme "occasionally identifies a passage plan that is little more than a list of waypoints entered into the ship's GPS."

It continues with an example of what it describes as inadequate passage planning: "A bulk carrier grounded heavily as it slowed to pick up a pilot while inward-bound to a discharge port. The ship was set off course by a strong cross-tide and struck a shoal that was clearly marked on the chart."

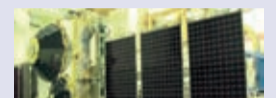
"Professional salvors refloated the ship but the

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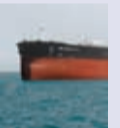
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Meet us at Digital Ship Scandinavia 2010
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grounding had caused it significant damage."

"The investigation into the many causative factors highlighted that the effect of tides and tidal streams was completely absent from the entire passage plan, which is contrary to the requirements of Chapter V of SOLAS."

"That the ship would be set across the track should have been clear from the information provided in the tidal table printed on the chart. But the failure to allow for set was even more surprising given that the ship had been at anchor for several days and had to reposition after the strong tides caused the anchor to drag."

Solutions

Issues like the ones raised by the London P&I Club would seem to act as a strong endorsement of industry moves towards increased integration and connectivity in onboard navigation systems.

IMO's push for e-Navigation and the introduction of a mandatory carriage requirement for ECDIS (electronic chart display and information system) from 2012 could help to reduce the possibility of vessels sailing with charts that do not represent the most accurate and up-to-date representation of their navigational environment.

The transmission of digital chart data, whether by satellite or using other broadcast systems, is quite obviously the fastest way of getting the latest corrections on to a vessel bridge.

Satellite connectivity can allow a vessel, in the deepest parts of the ocean and far from land, to be updated with the most accurate charts available almost instantaneously.



Electronic charts and ECDIS can make it easier to update folios, and may also reduce the burden on the navigator

In addition to this, onboard ECDIS systems dealing with digital data could also create the benefit of removing the burden of updating the onboard chart folio from the navigator, giving him more time to concentrate on the task at hand – ensuring safe passage for the vessel.

One recent example of how this technology could be applied is a new ECDIS system released just weeks ago by Swedish company Adveto, which comes with a built-in connection to communicate directly over the internet (see page 25).

Using this kind of technology with an ECDIS could help to remove the spectre of out-of-date charts almost completely, with the system able to automatically connect with ENC (electronic navigational chart) databases onshore at commencement of

the voyage to get the latest chart editions.

Updates could be constantly transmitted as they are produced, and applied automatically without the navigator having to intervene.

IMO's vision of e-Navigation is "to integrate existing and new navigational tools, in particular electronic tools, in an all-embracing system that will contribute to enhanced navigational safety (with all the positive repercussions this will have on maritime safety overall and environmental protection) while simultaneously reducing the burden on the navigator."

The ECDIS is sure to play a central role in the evolution of this strategy – and will hopefully live up to the claims that it will positively reduce the number of accidents and incidents in the shipping industry. **DS**

Wired Ocean broadband system approved by Thrane

www.wiredocean.com
www.thrane.com

Wired Ocean has been awarded the official status of Thrane & Thrane 'Accredited Solution', confirming the compatibility of Wired Ocean's S-Box and service for use with SAILOR FleetBroadband and Fleet terminals, and a forthcoming line of SAILOR SAT TV antennas.

The accreditation follows a period of testing by Thrane of the Wired Ocean 'hybrid' technology, which integrates mobile satellites and television broadcast satellites to deliver high speed broadband.

Typical internet use consists of relatively small amounts of data (such as webpage or search requests) being sent from the vessel (uplink), with much larger amounts of data (for example web pages, manuals, software upgrades, weather and navigation information)



The Wired Ocean S-Box has demonstrated compatibility with a number of Thrane terminals

being received (downlink).

By utilising a vessel's satellite TV antenna for the downlink portion, Wired Ocean aims to reduce airtime costs for the downlink, whilst the primary satcoms system is used as normal for the uplink.

"Although our services are already used aboard many SAILOR fitted vessels we are delighted that Thrane & Thrane has officially recognised Wired Ocean's

ability to significantly improve the performance and affordability of onboard internet," says Victor Barendse, managing director, Wired Ocean.

"Combining Wired Ocean's S-Box with SAILOR FleetBroadband and SAILOR SAT TV provides ships with cost-effective broadband, in addition to the voice, data and television services available through the SAILOR equipment."

Ship Equip buys 51% of Exectiva

www.ship-equip.com

Ship Equip has acquired a majority 51 per cent stake in consulting company Exectiva from its two owners, Stig Even Larsen and Lennart Utgård.

The company will become part of the Ship Equip Group while a long term consulting agreement is agreed between

the two companies.

Exectiva works in the development and support of IP telephone systems, with experience in broadband deployment, telecoms and programming. The companies say that the new team will work closely with the R&D department at Ship Equip on a number of different projects.

"With their long time background in

development and maintenance of IP based telephony systems the Exectiva consultants are a good match with the current and future needs of Ship Equip," said Ship Equip CEO, Ivar Nessel.

"We saw that they would be able to contribute and found it right to invest in the company."

Following the acquisition Mr Nessel will become the new chairman of the Exectiva board and Morten Qvigstad (Ship Equip CTO) will become a new board member.