

# Ship Building i n d u s t r y

## Oleg Strashnov

SMASHING ALL RECORDS

## ENC Track

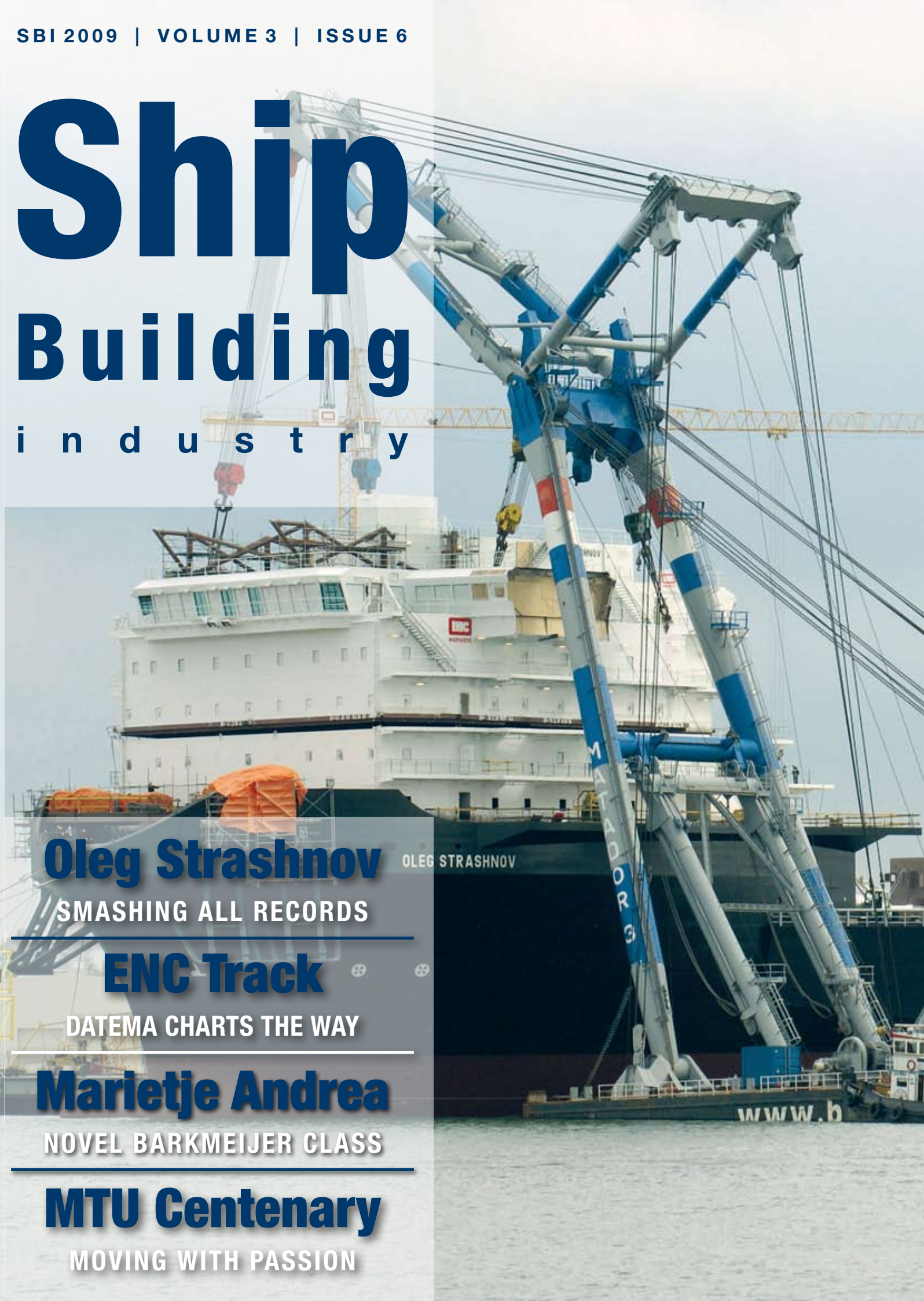
DATEMA CHARTS THE WAY

## Marietje Andrea

NOVEL BARKMEIJER CLASS

## MTU Centenary

MOVING WITH PASSION



# Right Approach

## Winning the ECDIS Challenge

**E**CDIS has understandably generated large amounts of news, opinions and controversy. The technology is credited on one hand for reducing groundings by one-third, and on the other for assisting new groundings. The IMO has made ECDIS mandatory on every tanker, passenger ship and dry cargo ship by 2018 and many long before that, but many wonder whether manufacturers, shipyards, buyers, chart suppliers and, particularly, seafarers are prepared for it. Lastly, ECDIS seems like a big new cost centre, when the industry is seeing profits hammered by a profound recession. So, what gives?

### For the Better

Few are more aware of the challenges and contradictions of ECDIS than the community of ECDIS manufacturers, chart suppliers and hydrographers. Across the board, they see the biggest challenge as one of information and education. With the necessary preparation, shipping companies will find that

ECDIS implementation proceeds smoothly, prevents accidents and lowers the costs and workload of navigation, argue its proponents.

“ECDIS has the potential to alter maritime navigation radically for the better,” says Marketing & Communications Manager Willy Zeiler of Jeppesen Marine, a leading provider of electronic charts and ENC’s – the chart data that fuels ECDIS. “Early movers who have already implemented ECDIS report fantastic results, in terms of safety and costs. Now we’re engaged in a massive campaign to help the rest of the shipping industry get to the same place.” For those thinking about ECDIS and electronic charts, Zeiler is able to give a few pointers worth remembering.

### Training Needed

“All passenger vessel newbuilds over 500 tons starting in July 2012 will need to be equipped with ECDIS. That’s not far off.



*Now that IMO has made ECDIS mandatory, many shipping companies are on a steep learning curve. ECDIS systems are new to many. Electronic charts are also new. Both introduce new technology questions to traditional bridge disciplines. With the right approach, companies have nothing to fear. Willy Zeiler of Jeppesen Marine provides a few pointers.*

Considering lead times at the yard and at the ECDIS manufacturer and a decent specifications phase, that's not far off. Training adds another challenge to planning. Early next year, the IMO will probably pass new training requirements. As a result, all bridge officers will need both generic and type-specific ECDIS training. Without some planning, there could be a training capacity squeeze in front of the deadline."

### Long-Term Approach

"When you choose an ECDIS, you are purchasing a piece of hardware that, like any other, will require service, support and upgrades for decades. It's worthwhile considering the nature of ECDIS manufacturers' service warranties and global customer

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"We developed a 'pay-as-you-go' option called Dynamic Licensing that allows users to open and use chart cells freely for route planning and sailing."

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support coverage. Further, you will be buying ENC's to run on your ECDIS for its lifetime. Not all ECDIS manufacturers allow the same kinds of functionality from charts and chart suppliers. Look at the electronic chart functionality made possible by the different ECDIS manufacturers. On our web-site ([jeppesen.com/marine](http://jeppesen.com/marine)), for example, we've listed up the type-approved ECDIS manufacturers and models, with the different functions that they allow. We see that this kind of content has been valuable."

### Weigh the Differences

"Getting paper charts and paper chart updates and getting the same for electronic charts are two very different things. Even if you continue to supply your ships with paper charts (and many will), you are better off taking a fresh look at how you supply your ships with electronic charts. How you acquire electronic





charts, how you update them and how you license them – it can all be done better, cheaper and more quickly than with paper charts. But you will need to re-examine your processes and the technologies that you use for ship-to-shore communication and ship management. And this process prepares users for the common and reasonable goal of doing away with paper charts altogether.”

## Value for Money

“ENCs are ENCs, and they are all issued by national hydrographic offices. Hence there is no difference between an ENC from a hydrographic office, from a RENC (Regional ENC Centre) or from a commercial chart supplier. ENCs are produced according to very strict definitions, and their integrity is controlled at every step of the supply chain. In essence, there is no difference between an ENC sourced from a hydrographic office, and an ENC from a commercial supplier, nor between ENCs from different commercial suppliers. Any ENC supplier that asserts that another ENC supplier is not ‘official’ is contradicting itself, as an ENC’s status is defined by an outside authority – the IHO.”

“We at Jeppesen Marine, for example, supply ENCs through

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agreements with hydrographic authorities. From PRIMAR RENC, we license ENCs, and they see the value we can add by bundling the ENCs with other value-added technology. Our role in the supply chain is to create a single source of supply, with added value in the form of simple and cost-effective solutions for distribution, licensing, updating and operational add-ons (such as weather updates, weather routing, route optimization and the like).”

## Data Delivery

“In their raw form, ENCs are very large data files. Copying, decrypting, verifying and installing them on an ECDIS are very time-consuming processes; in independent tests, this process

took over four hours. For this reason, chart suppliers like Jeppesen Marine offer to prepare the chart data, and distribute it in a format, called SENC (for System ENC), that can be loaded on an ECDIS in a few minutes (according to the same independent testing). This so-called SENC distribution from Jeppesen Marine, for example, has been type approved by DNV and approved in practice by the IHO. Rapid and secure installation has safety, cost and time benefits. When looking at ECDIS manufacturers and chart suppliers, consider how they are prepared to distribute chart data.”

## License Management

“Electronic charts introduce new and better ways to manage licenses, thus reducing costs. The conventional way to obtain licenses is to review a supplier’s chart catalog, list up the necessary chart cells, send a request for the licenses, await the licenses and – once they’ve arrived – use the licenses to activate chart cells and plan your route. Even at the best of times, this can be slow. For that reason, we developed a ‘pay-as-you-go’ option called Dynamic Licensing. This allows users to open and use chart cells freely for route planning and sailing; later, we receive a record of the opened cells, and bill accordingly. Users set their own pre-defined budgets. Today ours is still the only dynamic licensing solution on the market, even if it’s a straightforward application of the benefits inherent in electronic chart distribution. With new licensing

## Win-Win-Win

As thousands of new customers forcibly enter the market for ECDIS, ECDIS training and ENCs, they are right to proceed by gathering information on the suppliers, on their solutions, on the technology and, of course, on the regulatory developments that impact ECDIS and E-Navigation. Jeppesen Marine have recently completed an informational tool on mandatory ECDIS that is available free of charge from Willy Zeiler (willy.zeiler@jeppesen.com). With the right information and communication, everyone stands to gain from widespread ECDIS use in the commercial maritime industry. This has the potential be a win-win-win for the maritime industry, the seafarer and the public.



solutions like these, management companies can decrease their chart expenses.”

## Updating Benefits

“Many shipping companies already using ECDIS consider this the ‘killer app’ of electronic charts. That is, they see the possibility of doing away with the time-consuming and mind-numbing process of adding updates to paper chart folios as a godsend. Given that you are using an ECDIS and a chart supplier with the right functionality, your electronic chart updates can be downloaded via the Internet and completed with the click of a button, with no loss of security. With electronic charts and ECDIS, the requirements to updating charts are no less strict, but the technological capabilities make the process considerably easier.”

## Valuable Functions

“ECDIS is a major part of a phenomenon that the IMO and IHO call e-Navigation – an ambitious re-think of how modern technology can contribute to safe and cost-efficient maritime operations. Part and parcel of e-Navigation are new functions and new sources of information that can aid shipping companies. For example, many shipping companies are already using our weather service together with electronic charts to plan safer, and more efficient, transits. For example, one major shipping company has been able to significantly reduce weather damage by combining our chart data with weather updates.”

“Further, route optimization programs can compare hull and sea forces over a number of voyages, and then propose faster, more fuel-efficient routes. Shore industries have made rapid

progress by analyzing and exploiting richer information sources; there is the same potential in shipping. The WVOS (Vessel Voyage Optimization Service) group in Jeppesen Marine has chalked up a number of successes in this area.”

**i. [www.jeppesen.com](http://www.jeppesen.com)**

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