



# The ECDIS Revolution

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The  
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# ECDIS Challenge

- Total change from using paper charts
- Transition poses a challenge for the industry
- Watchkeepers must remain vigilant and continuously monitor vessel's position



# ECDIS Benefits

- Significant aid to navigation
- Not a substitute for good seamanship
- No replacement for a trained and experienced navigator
- Benefits and limitations must be understood





## ECDIS v ECS

- Approved ECDIS - Only ECDIS meets SOLAS Ch V (Type approved system, Official Data and Flag approved)
- Everything else is ECS – for “Situational Awareness”.
- Very difficult to tell them apart!
- The vast majority of ships are using ECS – not ECDIS.

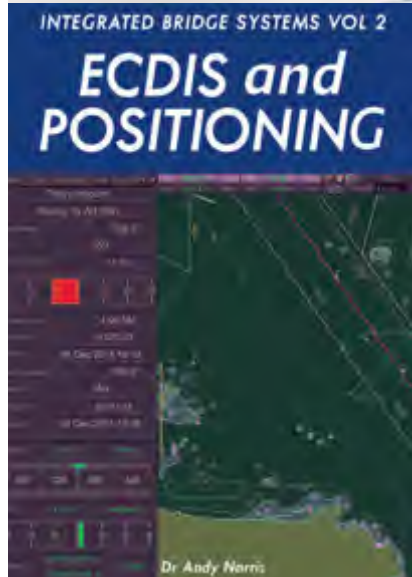




# Ship Masters

- Be aware of restrictions and procedures
- Training and familiarisation
- Advise companies if level of training is inadequate





## FAMILIARISATION CHECK LIST

### I INITIAL PREPARATION

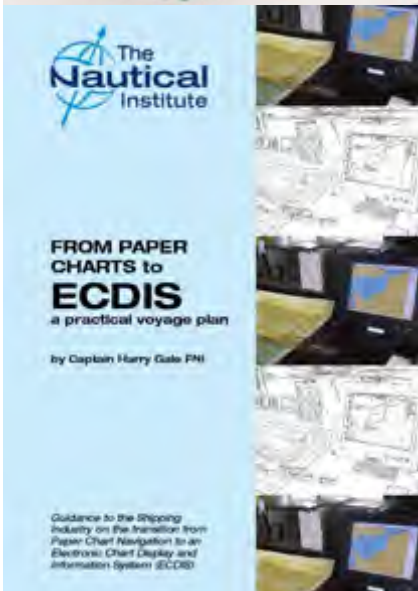
1.1	Establish whether there are Bridge Instructions concerning the use of the equipment and ensure that these are followed	5.1.3, 5.2, 5.3, 6.2, 6.4.3, 7.1, 7.2, 7.3, 8.0, 8.1	W
1.2	Establish whether the equipment is a flag-approved ECDIS. If not, paper charts must be used as the primary charting system	5.1.3, 5.2, 5.3	W
1.3	Identify the primary ECDIS equipment and the facilities for back-up. If the back-up is a second ECDIS of a different type to that of the primary installation, then Sections 2 to 6 of this familiarisation checklist must be repeated for both systems	5.3	W
1.4	Establish whether emergency charts are carried as a final level of back-up. If so, determine their location and their suitability for the voyage.	8.6.1	M
1.5	Establish whether an emergency computer such as a laptop running ECS software is available. If so determine its whereabouts and how to switch on and access the ECS package.	8.6.1	M
1.6	Establish whether there is an on-board approved familiarisation training package for the equipment, whether as computer based training, an inbuilt training mode or as a book or digital image of a book (eg. PDF file). Use this before completing the check list items here	5.5, 10.1, 10.2	W



# Paper chart to ECDIS

SGCG Quote: *“Watch officers can step onto the bridge and real time data is there on the screen, ready to be interpreted. This is very convenient”*

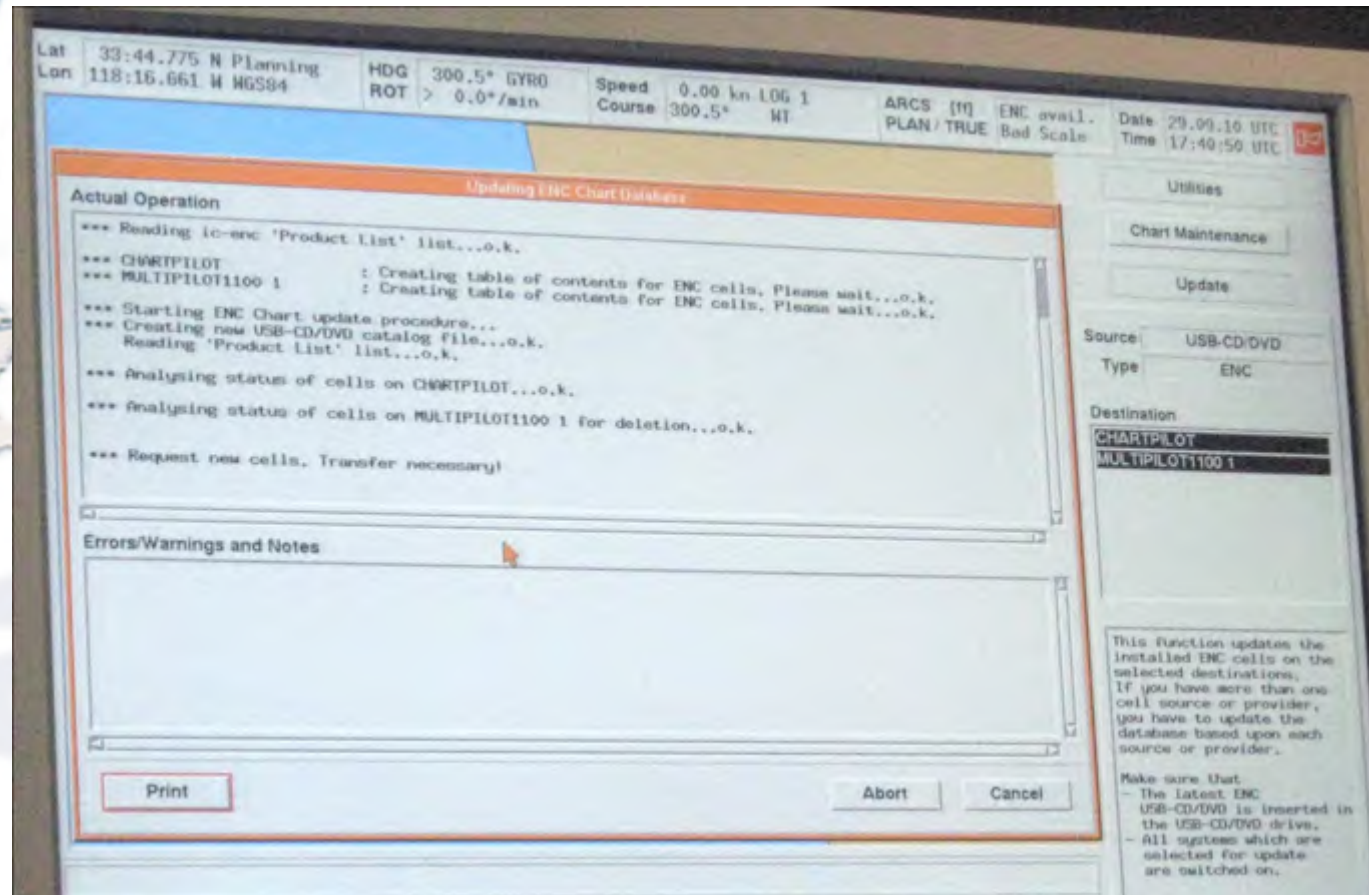
But .....







# Chart Correcting (updating)



# ECDIS

All of this technology will be of very little benefit in enhancing navigational safety if the watchkeeping officer is not fully trained and competent in its use.



The screenshot shows a web page titled "Electronic Chart Display and Information Systems Discussion Forum" with a sub-header "ECDIS Feedback Wanted!". The page contains the following text:

As more and more vessels are fitted with ECDIS, mariners will gain more experience in the use of the equipment and technology. However, there are bound to be many issues arising from this increasing use of ECDIS. The Nautical Institute would like to hear about these.

Some may be directly related to the use of equipment and its navigational facilities, including whether information is being appropriately displayed. Others may question aspects of the current operational practice of using ECDIS. Some comments may arise solely from insufficient or inappropriate training of users.

To contribute your views and experience, or comments to the forum email [ecdiss@nautinst.org](mailto:ecdiss@nautinst.org)

Identification of correspondents will be removed before posting to the forum.

The Nautical Institute's Technical Committee has arranged to collate any reported issues and submit them to appropriate bodies including:

- the International Hydrographic Organization (IHO)
- the International Electrotechnical Commission (IEC)
- the International Association of Marine Electronic Complexes (IAMEC), or
- the IMO

as appropriate.

These organisations will be asked to analyse reports and offer advice and corrective action which will then be published by The Nautical Institute and supporting organisations.

The long term aim of this initiative is to improve the design of ECDIS equipment and its data by influencing regulations and standards and also to influence the way in which the use of ECDIS is taught to and used by seafarers.

The page also features a navigation menu with "Forum Home", "ECDIS Issues", "Technical Feedback", "Links", "Industry News", and "Training". A sidebar lists supporting organizations: ICRM, IEC, International Federation of Shipowners' Associations, International Marine Electronics Association, International Union of Pure and Applied Chemistry, and Royal Institution of Navigation.



# Conclusions

- ECDIS reduces the navigational workload and produces real time positional information
- Take into account its different ways of navigating when implementing operational procedures
- Be alert and engaged in process, not just a monitor
- Ensure competence through assessment





**Support of The Nautical Institute  
through membership and  
participation is very much  
appreciated!**

**Thank You**

**Join Now!**

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