

ECDIS Training Requirements - Updated Guidance

1. What is an electronic chart display system?

An electronic chart display system is a general term for all electronic equipment that is capable of displaying a vessel's position superimposed on a chart image displayed on a computer screen.

There are two classes of electronic chart display system:

- The first is an ECDIS (Electronic Chart Display and Information System), which can meet IMO/SOLAS chart carriage requirements.
- The second is an ECS (Electronic Chart System), which can be used to assist navigation, but does not meet IMO/SOLAS chart carriage requirements.

2. ECDIS Specification

ECDIS equipment is specified in the IMO ECDIS Performance Standard (see Resolution MSC.232(82)) as follows:

“Electronic Chart Display and Information System (ECDIS) means a navigation information system which, with adequate back up arrangements, can be accepted as complying with the up-to-date chart required by regulation V/19 & V/27 of the 1974 SOLAS Convention as amended”.

Where the term ECDIS is used, it means those navigational electronic chart systems, that have been tested, approved and certified as compliant with the IMO ECDIS Performance Standard and other relevant IMO Performance Standards and thus are compliant with the ECDIS chart carriage requirements contained in SOLAS Chapter V.

3. ECDIS Carriage

A fully approved ECDIS system (with adequate backup arrangements) can be used to replace paper charts.

Some Flag States are interpreting the mandatory carriage requirement (see below) as that ECDIS must be used as the primary means of navigation by the affected vessels.

The IMO has set out a timetable for the **mandatory** fitting of ECDIS on SOLAS ships commencing in July 2012 (High Speed Craft already have to carry ECDIS).

Ship Type	Size	New Ships	Existing Ships
Passenger Ships	>= 500 GT	constructed on or after 1 July 2012	constructed before 1 July 2012: not later than the first survey* on or after 1 July 2014
Tankers	>= 3000 GT	constructed on or after 1 July 2012	constructed before 1 July 2012: not later than the first survey* on or after 1 July 2015
Cargo Ships, other than tankers	>= 10 000 GT	constructed on or after 1 July 2013	see below
	>= 3000 < 10 000 GT	constructed on or after 1 July 2014	-
	>= 50 000 GT	-	constructed before 1 July 2013: not later than the first survey* on or after 1 July 2016
	>= 20 000 < 50 000 GT	-	constructed before 1 July 2013: not later than the first survey* on or after 1 July 2017
	>= 10 000 < 20 000 GT	-	constructed before 1 July 2013: not later than the first survey* on or after 1 July 2018

4. Training Requirements

Without proper training, these systems will not be used to their full potential and could under some circumstances increase the hazard to navigation. There have already been several groundings where poor ECDIS use was a contributing factor.

The IMO STCW (Standards of Training, Certification and Watchkeeping) and ISM (International Safety Management) codes put the responsibility firmly on the ship-owner to ensure that mariners on their vessels are competent to carry out the duties that they are expected to perform. If a ship is fitted with ECDIS, the ship-owner has a duty to ensure that users of such a system are properly trained in its operation and use before using it operationally at sea.

If a ship has an ECS fitted for use and it is being used as an aid to navigation, the ship-owner has a duty to ensure that users of such a system are properly trained in its use, before employing it operationally at sea, are aware of its limitations compared to ECDIS and the need to use paper charts to fulfil the SOLAS chart carriage requirements.

The MCA approach is that, to operate with ECDIS as the primary means of navigation (paperless), the following training requirements have to be met:

- a. All deck officers must have completed a generic ECDIS course based on the IMO Model ECDIS course (1.27). Other qualifications are also accepted - please see MIN 442. The **Yacht Nav and Radar courses are not recognised** as meeting the ECDIS training requirement but MN NARAS/NAEST (2005 onwards) are accepted.
- b. All deck officers must have completed type specific training for the particular equipment that is fitted to their ship.
- c. The use of ECDIS is incorporated into the vessels Safety Management System.

ECDIS certification (issued January 2005 onwards) is now required for the issue and revalidation of UK Certificates of Competency (MIN 423). This applies to large yachts, as well as merchant ships. Applicants without an ECDIS certificate will have their certificate endorsed ***“From the 1 January 2017, this certificate is not valid for service on ships fitted with ECDIS”***. It is also expected that ECDIS training will be a requirement for the new Chief Mate (Yachts) CoC.

5. ECDIS Training at WMA

ECDIS training is now an integral component of all navigation training at WMA. Both the OOW (Yachts) and Master (Yachts) Navigation and Radar Courses include some ECDIS theory as well as practical ECDIS use in the Bridge Simulators. The Yacht Nav & Radar courses are too short to include full ECDIS training.

WMA offers an MCA approved generic ECDIS course based on the IMO Model course 1.27. This course runs for five days (40 hours) and over 20 courses are planned each year. For latest dates and prices please see the WMA/WSA website.

The course includes:

- ECDIS theory and legal aspects
- Practical classroom instruction using one ECDIS system per student
- Realistic practical exercises involving ECDIS related failures (GPS/Gyro) (conducted in pairs as too involved for one person)
- Extensive use of state of the art, desktop Bridge Simulators using the latest TRANSAS NAVISAILOR 4000 ECDIS equipment
- TRANSAS accredited type specific training on the TRANSAS NAVISAILOR 4000 ECDIS (WMA is a Transas GET-Net Gold Partner)

WMA also carries out other ECDIS related training and development:

- Manufacturer approved equipment specific training on the Transas Navi Sailor 4000 ECDIS
- Paperless procedures development and training
- Paperless Bridge Team Management (BTM) courses
- ECDIS consultancy

EXTRACT FROM MGN 442 - TRAINING FOR ECDIS AS PRIMARY MEANS OF NAVIGATION

2. *ECDIS Generic Training*

2.1 *After detailed consideration and in agreement with the Merchant Navy Training Board (MNTB) Technical Committee it has been agreed that anyone who holds a completion certificate for a MCA approved NARAS course (operational or management) issued after 1 January 2005 meets the requirement of ECDIS generic training.*

2.2 *The completion of any one of the following will be recognised as meeting the ECDIS generic training requirements:*

- *MCA approved Navigation Radar and ARPA Simulator (NARAS)/ Navigation Aids and Equipment and Simulator Training (NAEST) (Operational Level) course completed on or after 1 January 2005; or*
- *MCA approved NARAS/ NAEST (management level) course completed on or after 1 January 2005; or*
- *An ECDIS programme based on the IMO Model ECDIS course (1.27) approved by the MCA; or*
- *ECDIS simulator training course in compliance with the current IMO Model Course 1.27 and approved by an Administration whose CoC we accept for the issue of a Certificate of Equivalent Competency (CEC).*

2.3 *Carriage of any one of the above certificates, together with reference to this notice, should satisfy Port State Control Officers (PSCO) that the holder meets the required ECDIS generic training requirement.*



Two Superyacht students training on the recently upgraded ECDIS suites at WMA

Relevant Marine Guidance Notes (MGN) and Marine Information Notes (MIN):

- MGN 285: Electronic Charts - The Use of Risk Assessment Methodology when Operating ECDIS in the Raster Chart Display System (RCDS) Mode
- MGN 360: Navigation: Implementation of Changes to Routing Measures in Electronic Navigational Charts (ENCs)
- MGN 379: Navigation: Use of Electronic Navigation Aids
- MIN 390: Navigation Safety: Electronic Chart Display and Information System (ECDIS) and Bridge Navigational Watch Alarm System (BNWAS) - Early Notification of Changes Arising out of Amendments to SOLAS V/19
- MIN 442: Training for ECDIS as Primary Means of Navigation
- MIN 445: Use of ECDIS as Primary Means of Navigation (PMN)