Annex A: Electronic Chart Display and Information System

ECDIS integrates numerous navigational aids such as the gyrocompass, speed log and positioning system, into a single display. Radar, automatic identification system and other navigational aids could also be integrated into ECDIS. Without needing to switch between instruments, a ship's officers can now monitor the ship's progress in real-time on a single display. It is therefore a system which improves the situational awareness of navigators onboard ships. ECDIS together with associated Electronic Navigational Charts (ENCs) will replace the conventional paper charts which have been used for over 200 years.

The ECDIS simulator resembles an operational ECDIS fitted onboard with the controls of ships. It has an instructor station and several ship stations allowing the trainees to experience navigating the ship without the use of paper charts that they are used to. Each trainee is provided with "moving views" of the visual outside the ship and other navigational aids at a ship station. The instructor could inject operational errors of any navigational aids into any of the "ship". Participants will be guided on how to develop appropriate training for seafarers including simulation-based exercises, evaluate trainees and use post-exercise debriefs so that they are able to train seafarers to be competent and proficient users of ECDIS.

The requirements for ECDIS are stipulated in international conventions from the International Maritime Organization (IMO). Under the International Convention for the Safety of Life at Sea (SOLAS), it will be mandatory to install ECDIS on board different categories of ships in stages by 2018. Under the 2010 Manila amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW Convention), deck (navigating) officers serving onboard a ship fitted with ECDIS are required to be trained in its use.