CONCEPT

Electronic Chart Display and Information System Training Course



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Introduction:

Electronic Chart Display and Information System Training Course is a 1-week course for navigational watch officers, bridge team operators, passage planning navigators, and marine safety specialists, culminating in an ECDIS Navigational Passage Plan and Safety Verification Pack. Inadequate ECDIS parameter configuration, improper safety depth calculations, and over-reliance on automated sensors cause dangerous navigational groundings, chart display confusion, and compliance detentions. Nominees already maintain navigational bridge watches, plot manual chart positions, and review coastal passage schedules, with instruction delivered through realistic bridge simulation. CoreConcept Training Center delivers this Electronic Chart Display and Information System Training Course.

Course Objectives:

- Configure primary ECDIS display parameters, safety contours, and safety depths according to vessel draught and under-keel clearance policies.
- Execute compliant electronic passage plans utilizing official Electronic Navigational Charts and standard route planning functions.
- Manage bridge sensor inputs, positioning discrepancies, and system fallbacks in line with IEC 61174 operational performance requirements.
- Assess ECDIS navigational alarms, safety vector look-ahead alerts, and target overlays during critical pilotage and shallow-water transits.
- Apply official ENC chart updating protocols and data verification checks in compliance with IHO S-63 data protection schemes.
- Assemble an ECDIS Navigational Passage Plan and Safety Verification Pack to support bridge audit inspections and voyage execution.

Target Audience:

- Bridge watchkeeping specialists responsible for maintaining navigational safety and monitoring automated chart systems underway
- Passage planning operators responsible for compiling electronic appraisal routes and verifying hydrographic hazard clearances
- Marine navigation technicians responsible for integrating electronic sensor feeds and maintaining chart update registries
- Vessel operations watchstanders responsible for monitoring vessel traffic movements and configuring collision warning parameters

Course Outline:

Day 1: Legal Carriage and Electronic Chart Foundations

- SOLAS Chapter V Regulation 19 Verifying Mandatory Carriage Compliance
- IMO Resolution MSC.23282 Reviewing ECDIS Functional Performance Standards
- STCW Table A-II/1 Aligning Watchkeeping Operational Competencies
- Official ENC Datasets Differentiating Vector Charts From Raster Charts
- ECDIS Operating Architecture Configuring Hardware Controls And User Interfaces

Day 2: Display Specifications and Hydrographic Standards

- IHO S-57 Transfer Standard Interpreting Vector Chart Database Structures
- IHO S-52 Presentation Library Configuring Display Modes And Symbology
- IHO S-63 Security Scheme Applying Digital Signature Decryption Keys
- IMO Resolution MSC.530106 Preparing S-100 Transition Framework Readiness
- ECDIS Safety Settings Calculating Under Keel Safety Contours

Day 3: Passage Planning and Navigation Sensor Integration

- Electronic Navigational Charts Plotting Waypoints And Turn Radii
- Cross Track Distance Parameters Setting Corridor Width Limits
- IEC 61174 Performance Standard Integrating GNSS Heading And Log
- ECDIS Route Check Engines Scanning Hydrographic Hazards Automatically
- Chart Updating Mechanisms Logging Notice To Mariners ENC Corrections

Day 4: Operational Risk, Alarms, and System Anomalies

- Bridge Alert Management Protocols Mitigating Nuisance Acoustic Alarms
- Radar Overlay And ARPA Correlating Target Tracking Vectors
- Parallel Indexing Methods Cross Checking Position Fixing Discrepancies
- ECDIS Sensor Failure Scenarios Activating Dead Reckoning Backup Systems
- Shipboard Cyber Security Protocols Managing Data Gateway USB Transfers

Day 5: Simulation Practice and Plan Verification

- Full Mission ECDIS Simulation Executing Coastal Passage Scenarios
- Bridge Simulation Drills Handling Sensor Loss And Fallbacks
- Simulated Narrow Channel Operations Verifying Safety Contour Alarms
- ECDIS Passage Audit Protocols Reviewing Execution Track Histories
- ECDIS Navigational Passage Plan And Safety Verification Pack

Skills You Will Gain:

- Electronic Navigational Chart Appraisal
- ECDIS Safety Contour Calculation
- Hydrographic Hazard Route Checking
- Bridge Alert Management Configuration
- Navigation Sensor Discrepancy Analysis
- ENC Security Key Management
- Blind Pilotage Position Verification

Why Attend This Course:

- Deliver a validated ECDIS Navigational Passage Plan and Safety Verification Pack to the master and fleet superintendent to authorise scheduled voyage departures.
- Authorise safety contour depths, anti-grounding look-ahead vectors, and cross-track limits based on verified draft and tidal conditions.
- Prevent vessel groundings, regulatory port state control detentions, and sensor-induced track deviations through rigorous electronic navigation cross-checks.
- Train bridge team personnel in standardised ENC update logging routines and fallback procedures during primary sensor outages.

Conclusion:

Following this course, the organisation utilises the ECDIS Navigational Passage Plan and Safety Verification Pack to execute compliant and secure vessel voyages. Marine operations managers and vessel masters use this verification pack to sanction passage routes, authorise shallow-water transits, and verify equipment sensor readiness. After completing the initial voyage cycle using the pack, the marine safety committee should review bridge audit logs, alarm override frequency reports, and manual position fixing records to refine fleet-wide navigational standard operating procedures.

Frequently Asked Questions FAQ:

Which roles should an organisation nominate for the Electronic Chart Display and Information System Training Course?

Navigational watchkeepers, passage planners, and marine safety officers should be nominated. These operational personnel are responsible for configuring electronic bridge systems, monitoring automated navigational tracks, plotting coastal passages, and managing vessel safety during underway operations.

What should nominees already do at work before attending the Electronic Chart Display and Information System Training Course?

Nominees should possess prior experience in bridge watchkeeping, traditional paper chart navigation, and basic passage planning principles. Familiarity with nautical terminology, vessel handling concepts, and marine radar operation ensures participants can effectively operate digital chart interfaces and interpret complex positioning feeds.

What does the organisation receive when the participant returns from the Electronic Chart Display and Information System Training Course?

The organisation receives an ECDIS Navigational Passage Plan and Safety Verification Pack. This operational artefact contains verified waypoint tables, calculated safety contours, automated route check hazard reports, and sensor fallback protocols ready for formal master review and voyage deployment.

Which standard or framework does the Electronic Chart Display and Information System Training Course follow?

The course adheres to IMO Model Course 1.27 and STCW Table A-II/1 competencies. Technical specifications incorporate IMO Resolution MSC.23282, IEC 61174 operational testing requirements, and IHO S-52, S-57, and S-63 electronic chart standards.