

OIC - NW: COMPETENCE 4

Use of ECDIS to Maintain Safety of Navigation

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| 1 | At what level of risk does a faulty GPS position represents to navigation on ECDIS? | | | |
| | Medium risk | Great risk | No risk at all | None of the choices |
| 2 | Database transformed by ECDIS; equivalent to up-to-date paper chart and may contain info from other sources. | | | |
| | SENC | ENC | SECN | ECN |
| 3 | ECDIS must give an alarm for which of the following cases? | | | |
| | When the speed of a dangerous target exceeds a set limit | When the specified limit for deviation from the planned route is exceeded | If the ship's ETA has changed beyond the set limit | None of the above |
| 4 | If the ECDIS monitor's resolution is poor or improperly set, what may be affected on ECDIS? | | | |
| | all of the choices | fineness of detail may be lost | grounding possibilities | passage problems |
| 5 | In the ECDIS Route Planning Mode, which of the following (is) are the primary ways to adjust a planned route? | | | |
| | All of the choices | Alphanumerically and graphically | Changing the position of waypoints | Adding waypoints |
| 6 | In the ECDIS, what do you call this opportunity to and by scrolling through the charts to acquaint the OOW with potential danger areas, alterations of course, crossing traffic and so on? | | | |
| | Cross track Error | Safety checking | Look ahead | Chart selection |
| 7 | It is an electronic chart system not designed to satisfy the regulatory requirements of the IMO Safety of Life at Sea (SOLAS) convention. | | | |
| | Electronic Chart System (ECS) | Electronic Navigational Chart (ENC) | Electronic Chart Display and Information System, (ECDIS) | None of the above |

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| 8 | It is the digital database from which electronic charts are produced. | | | |
| | Electronic chart data base | Raster chart data base | Vector chart data base | All of the above |
| 9 | The direction in which a vessel is steered is the course. The path actually followed is the: | | | |
| | route | track | heading | course over the ground |
| 10 | What actions should the ECDIS user take when both the paper chart and the BA raster chart displayed are based on European 1950 datum with a WGS-84 offset note provided? | | | |
| | Switch the GPS to EUR 1950 datum if available | Check to see if the known offset is being applied to the displayed raster chart. | no action needed, the equipment automatically adjust | None of the choices |
| 11 | When zooming out (“under scaling”) on an ECDIS using a chart, all information layers remain on the display. | | | |
| | it depends upon the user preference | yes, all the information layers will remain on the display | no, other information layers will not be displayed | it depends upon equipment capability |
| 12 | Which data must ECDIS be able to record at one-minute intervals? | | | |
| | Estimated time of arrival | Course made good history | Speed through the water | Shaft RPM |
| 13 | Which of the following is a mandatory orientation and mode of display required by the performance standard for ECDIS? | | | |
| | Course-up orientation and True motion mode | North-up orientation and Relative motion mode | North-up orientation and True motion mode | Course-up orientation and Relative motion mode |
| 14 | Which of the following reflects the statement that ECDIS only supports the mariner in performing navigational tasks? | | | |
| | All of the choices | Without official updated ENC data for the intended voyage, ECDIS does not replace paper charts | Determine true bearing and distance between two geographical points | Make navigation more efficient |

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| 15 | With radar overlay on ECDIS, what can be the cause(s) of radar echoes not matching the charted position of a fixed object? | | | |
| | All of the choices | Either the Chart Display Category is in Base Display or the scale is so small that it is showing Layers Lost | Improper coordinate setting of radar antenna, conning | All of the choices |
| 16 | Which of the following must the electronic chart of an ECDIS display, as required by IMO/IHO? | | | |
| | All of the choices | Ferry routes | Hydrography | Regulatory boundaries |
| 17 | A chart database used in ECDIS and is published by or under the authority of governments is known as: | | | |
| | ENC | CEN | ECN | NEC |
| 18 | An ECDIS is required to display which information? | | | |
| | Water temperature | Climatology data | Speed of advance | Depth contours |
| 19 | Any digitized chart intended for display on a computerized navigation system. | | | |
| | Raster chart | Vector chart | Electronic chart | All of the above |
| 20 | By the STCW'95 implementation date of 1 February 2002, what country have been required to complete basic ECDIS training all holders of STCW'95 endorsed Certificates Of Competency in the deck department? | | | |
| | India | Australia | Philippines | Peoples Republic of China |
| 21 | ECDIS is set with a performance standard by IMO called: | | | |
| | DX90 | DT40 | DP90 | TX50 |
| 22 | ECDIS must give an alarm for which of the following cases? | | | |
| | If the ship is going to reach a critical point on the planned route | When the speed of a dangerous target exceeds a set limit | If the ship's ETA has changed beyond the set limit | All of these |

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| 23 | While underway, a vessel over 100,000 gross tons with an automatic identification systems (AIS) is expected to broadcast all of the following information every 1 to 10 seconds EXCEPT: | | | |
| | rate of turn | name of vessel | navigational status | ship's heading |
| 24 | Which of the following are data layer categories to be displayed on ECDIS? | | | |
| | All of the choices | Hydrographic Office data | ECDIS warnings and messages | Notice to Mariners information |
| 25 | Which of the following mode of operation for ECDIS has been recently approved by the IMO under Resolution MSC.86(7)? | | | |
| | RCDS | RSDC | DSRC | NEC |
| 26 | With respect to automatic identification systems (AIS), which information is expected to be broadcast every 1 to 10 seconds? | | | |
| | Name of ship | Ship's heading | IMO number | Vessel's draft |
| 27 | An ECDIS compliant electronic chart is best described as: | | | |
| | a vector chart that complies with the S-57 standard | an ARCS chart with latest Updates applied | a DC format vector chart digitized from a corrected paper chart | a vector chart from C-Map |
| 28 | An ECDIS units incorporate Digital Chart Data Formats, which include: | | | |
| | vector and raster | raster only | vector only | imposed viewing |
| 29 | Automatic identification systems (AIS) are required to: | | | |
| | provide safety-related information automatically to shore stations, other vessels and aircraft | receive safety-related information automatically from similarly equipped vessels | exchange safety-related information with shore-based facilities | All of the above |

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| 30 | An Electronic Chart System (ECS) is a system which displays chart data: | | | |
| | But does not comply with the IMO Performance Standard for ECDIS | In compliance with the IMO Performance Standard for ECDIS | In conjunction with data from radar and other sensors | And will comply with future revisions of the IMO Performance Standards for ECDIS |
| 31 | Automatic identification systems (AIS) are expected to broadcast all of the following information EXCEPT: | | | |
| | navigation status | ship's heading | port of origin | time stamp |
| 32 | ECDIS must have the capability to preserve the record of the voyage track for the previous: | | | |
| | 12 hours | 6 hours | 24 hours | 4 hours |
| 33 | If the ECDIS monitor's resolution is poor or improperly set, what may be affected on ECDIS? | | | |
| | All of the choices | Fineness of detail may be lost. | Chart features may not be shown in the intended color. | Chart scale may be misrepresented. |
| 34 | In the ECDIS Route Planning Mode, which of the following (is) are the primary ways to adjust a planned route? | | | |
| | All of the choices | Alphanumerically and graphically | Changing the position of waypoints | Adding waypoints |
| 35 | It is an electronic chart system which satisfies the IMO SOLAS convention carriage requirements for corrected paper charts. | | | |
| | Electronic Navigation Chart System | Raster Chart Display System | Electronic Chart Display and Information System | All of the above |
| 36 | The database resulting from (1) the transformation of the electronic navigational chart (ENC) by ECDIS for appropriate means, and (3) the additional data added by the mariner, is called the: | | | |
| | display base information | standard display information | system electronic navigation chart | chart display information |

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| 37 | This DOES NOT appear on the ECDIS chart display: | | | |
| | speed | distance | latitude and longitude | altitude |
| 38 | What error may occur in the ECDIS if hydrographic or chart survey data is inaccurate? | | | |
| | All of the choices | The vessel's geographic position may not match the charted display | Own ship may not be navigating in safe water, despite the information on the ECDIS display | Radar overlay and chart data may appear to be mismatched |
| 39 | A low HDOP (Horizontal Dilution of Precision) number such as 2 indicates a: | | | |
| | poor fix | good fix | poor signal quality | good signal quality |
| 40 | An ECDIS required to display which one among the listed information? | | | |
| | Soundings | Waypoints | Meteorological data | Radar targets |
| 41 | An electronic navigation system which forms part of the component of the IBS that use time interval in determining the ship's line of position? | | | |
| | DECCA | LORAN | RADAR | SHORAN |
| 42 | Data that is organized into many separate files and programs to produce certain symbols. | | | |
| | Raster Chart Data | Vector Chart Data | Electronic Chart Data | Any of the above |
| 43 | ECDIS uses the following units of measure EXCEPT: | | | |
| | depths in meters | distance in nautical miles | height in meters | true course in degrees |

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| 44 | If it is thought or known that floating aids to navigation (buoys) have shifted, how should this be interpreted on ECDIS? | | | |
| | Physical buoy positions may differ from charted locations on ECDIS, as with any type of chart information. | Charted buoy locations are always more reliable than own ship's GPS position information. | ECDIS always shows the actual location of buoys. | Buoy position changes are never included in ENC updates. |
| 45 | If the electronic chart is part of an ECDIS, it must display the minimum data required by IMO/IHO, to include all of the following except what? | | | |
| | Hydrographic office data | Notice to mariner's information | ECDIS warnings and messages | Tidal currents |
| 46 | In which document will you find the Performance Standards for ECDIS? | | | |
| | IHO special Publication S 57 | IHO special Publication S 52 | IMO Resolution A.817(19) | IMO Resolution A.877 |
| 47 | Performance Standards for ECDIS is established by which agency? | | | |
| | IHO | IMO | UKHO | ILO |
| 48 | Which must the electronic chart of an ECDIS display, as required by IMO/IHO? | | | |
| | all of these | Hydrography | Ferry routes | Regulatory boundaries |
| 49 | Which of the following must an ECDIS system be able to perform? | | | |
| | All of the choices | Conversion of "graphical coordinates" to "display coordinates" | Transformation of local datum to WGS-'84 datum | Calculation of true azimuth and distance between two geographical points |
| 50 | Which of the following statements best describes manual chart corrections for ECDIS? | | | |
| | Manual calculation are computed through the chart. | Manual corrections are included in the CD that vessels receive periodically from NGA(formerly NIMA). | Manual corrections constitute user information layers, added by the mariner, with no automatic record of installation. | Manual corrections are feed through email by the company. |

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| 51 | A major advantage of the NAVTEX system when compared to other systems is that: | | | |
| | the information can be received on an ordinary FM radio | warnings are printed out for reading when convenient | broadcasts are at scheduled times | a low frequency band is used for long distance transmission |
| 52 | An ECDIS is required to display which among the following information? | | | |
| | Radar targets | ARPA vectors | Hydrographic data | All of these |
| 53 | An ECDIS must be able to perform which of the following? | | | |
| | geographical coordinates to display coordinates and display coordinates to geographical coordinates | geographical position from a known position given distance and azimuth | true distance and azimuth between two geographical positions | all of these |
| 54 | An electronic depth finder operates on the principle that: | | | |
| | radio signals reflect from a solid surface | sound waves travel at a constant speed through water | radar signals travel at a constant speed through water | pressure increases with depth |
| 55 | An important benefit of ECDIS is: | | | |
| | All of the choices | Simple and reliable updating of the ENC | Reducing navigational workload | Providing appropriate alarms or indications |
| 56 | As a minimum, ECDIS system must be able to perform the following EXCEPT: | | | |
| | transformation from local datum to WGS-84 datum | calculations such as great circles and rhumbline courses and distances | true distance and azimuth between two geographical positions | true distance and azimuth of two celestial bodies |

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| 57 | Aside from the requirements for the Display Base and Standard Display, who selects the display categories of the “All other information” display level? | | | |
| | The mariner | The hydrographic office issuing the ENC data | The ECDIS manufacturer | All of these |
| 58 | Chart information details to be used in ECDIS should be the latest edition of information originated by a government - authorized hydrographic office and conform to the standards of (the): | | | |
| | International Maritime Organization | International Hydrographic Organization | NASA | US Coast Guard |
| 59 | ECDIS database issued by hydrographic office that contains all chart info needed for safe navigation and may contain supplemental info, called: | | | |
| | AIS | SENC | ENC | GMDSS |
| 60 | ECDIS level in info that cannot be removed from display. What is required at all times and not intended for safe navigation? | | | |
| | complicated displays | Standard Display | Display Base | None of these |
| 61 | ECDIS means: | | | |
| | Electronic Chart Data Information System | Electronic Chart Display Information System | Electronic Chart Display and Information System | Electronic Chart Data and Information System |
| 62 | ECDIS must give an alarm for which of the following cases? | | | |
| | When the specified limit for deviation from the planned route is exceeded | If the ship, within a specified time set by the watch officer, is going to cross a safety contour | If the ship, within a specified time set by the watch officer, is going to cross the boundary of a prohibited area | All of the above |

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| 63 | ECDIS must give an alarm for which of the following cases? | | | |
| | when the specified limit for deviation from the planned route is exceeded | if the ship, within a specified time set by the watch officer, is going to cross a safety contour | if the ship within a specified time set by the watch officer, is going to cross the boundary of a prohibited area | All of these |
| 64 | ECDIS should be able to perform all the following functions, except for what? | | | |
| | Determine the true bearing and distance between two geographical points | Determine the magnetic compass deviation | Transform a local datum to WGS-84 datum | Convert geographical coordinates to display coordinates |
| 65 | Identify which of the following primary information should always appear on ECDIS display during route monitoring mode? | | | |
| | Next waypoint course | Vessel's cross tack error | Ship's ETA | Selected route |
| 66 | In the ECDIS Route Planning Mode, which of the following (is) are the primary ways to adjust a planned route? | | | |
| | all of the choices | alphanumerically and graphically | graphically | with great precaution |
| 67 | It is a digitized "picture" of a chart comprised of millions of "picture elements" or "pixels". | | | |
| | Raster Chart Data | Vector Chart Data | Electronic Chart Data | Any of the above |
| 68 | It is an Integrated Bridge System (IBS) that complies with the up - to - date chart in accordance with the requirements of International law. | | | |
| | SENC | RCDS | ECDIS | ECS |
| 69 | The component of the IBS that provides a station where the operator can input warning parameters such as a minimum depth under the keel or maximum cross track error. | | | |
| | Planning Station | Control System | System display unit | Chart Data Base |

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| 70 | The database information that should be shown when a chart is first displayed on ECDIS is the: | | | |
| | Standard display information | Display base information | System electronic nautical chart | Chart display information |
| 71 | The level of database information which cannot be removed from the ECDIS display and consists of information which is required at all times in all geographic areas and under all circumstances is the: | | | |
| | display base information | standard display information | complicated displays | none of these |
| 72 | The purpose of this course is to enhance safety of navigation by providing the knowledge and skills necessary to fully utilize the features of ECDIS is called: | | | |
| | IMO Model Course 1.37 | IMO Model Course 1.07 | IMO Model Course 1.27 | IMO Model Course 1.47 |
| 73 | This subsystem of the "Integrated Bridge System" which controls the processing of information from the ship's navigation sensors and the flow of information between various system components. | | | |
| | chart data base | computer processor and network | control system | system display unit |
| 74 | What does "EC" stand for ECDIS? | | | |
| | Electronic Chip | Electronic Course | Electric Chart | Electronic Chart |
| 75 | What does an automatic identification system (AIS) transponder use to transmit and receive information broadcasts? | | | |
| | 3000 Mhz and 9200 Mhz | 2182 Khz and 2187.5 Khz | 161.975 Mhz and 162.025 Mhz | 1575.42 Mhz and 1227.6 Mhz |
| 76 | What is defined as the level of SENC info shown when ECDIS first turned on; used for route planning and can be modified by mariner depending on needs? | | | |
| | ENC display | Display Base | Standard Display | none of these |
| 77 | Which data must ECDIS be able to record at one - minute intervals? | | | |
| | Position | Electronic navigational chart source | Course made good history | All of the above |

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| 78 | Which of the following data layer categories is NOT displayed on ECDIS? | | | |
| | Notice to Mariners Information | ECDIS warnings and messages | Ship hydrodynamic information | Hydrographic Office data |
| 79 | Which of the following describes the minimum Performance Standards for ECDIS systems, references to both hardware and software, ENC updates, user interface and the integration of external devices? | | | |
| | IHO Special Publication S52 | ECDIS Certified Systems | IMO Resolution A.817(19) | International Electro- technical Commission (IEC) standard 61174 |
| 80 | Which of the following is mandatory equipment that must be connected to ECDIS? | | | |
| | Radar/ARPA | Positional navigation sensors (e.g., GPS) | Track control (autopilot) | AIS |
| 81 | Which of the following reference systems affect the information on ECDIS? | | | |
| | All of the choices | Geodetic system used in the creation of the chart data | Draft of vessel entered into sounder that is connected to ECDIS | Physical location of scanner for ARPA connected to ECDIS |
| 82 | Which of the following statements is TRUE regarding automatic identification systems (AIS)? | | | |
| | AIS will not provide information on another vessel if that vessel is indistinguishable in radar sea clutter. | AIS can be relied upon as the sole means to determine risk of collision and safe speed. | AIS is designed to replace ARPA, maneuvering boards, and visual bearings as a means to ascertain the risk of collision. | AIS provides the other vessel's identity, dimensions and navigational status regardless of visibility. |
| 83 | Which of the following units of measure will appear on the ECDIS chart display? | | | |
| | position | depth | height | all of the above |
| 84 | With respect to automatic identification systems (AIS) which of the following information is broadcast every one to ten seconds? | | | |
| | Vessel's draft | Air Draft | Navigational status | Dimensions of vessel |