U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

US Coast Guard Stop 7509
2703 Martin Luther King Jr. Ave. SE
Washington, DC 20593-7509
Staff Symbol: CG-MMC
Phone: (202) 372-2357
Fax: (202) 372-1246
E-Mail: MMCPolicy@uscg.mil

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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 02-18

Subj: GUIDELINES ON QUALIFICATION FOR STCW ENDORSEMENTS AS OFFICER IN CHARGE OF A NAVIGATIONAL WATCH OF VESSELS OF LESS THAN 500 GT

Ref: (a) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW), incorporated into regulations at 46 CFR 11.102

1. PURPOSE. This Navigation and Vessel Inspection Circular (NVIC) provides guidance on qualification for, and renewal of, STCW endorsements for service as Officer in Charge of a Navigational Watch (OICNW) on vessels of less than 500 GT that are valid upon all waters.

2. ACTION. The Coast Guard will use this NVIC and 46 CFR 11.319 to establish whether mariners are qualified for STCW endorsements authorizing service as OICNW on vessels of less than 500 GT that are valid upon all waters (i.e., not limited to near-coastal waters). Officers in Charge, Marine Inspection (OCMIs) should bring this NVIC to the attention of the maritime industry within their zones of responsibility.

3. DIRECTIVES AFFECTED. None.

4. BACKGROUND/DISCUSSION.

   a. The International Maritime Organization (IMO) amended the STCW Convention and STCW Code on June 25, 2010. These amendments entered into force for all ratifying countries, including the United States, on January 1, 2012.

   b. The Convention is not self-implementing; therefore, the U.S., as a signatory to the STCW Convention, initiated regulatory changes to ensure full implementation of the amendments to the STCW Convention and STCW Code. The U.S. implements these provisions under the Convention and under the authority of the United States Code, Titles 5, 14, 33, and 46. The Coast Guard published a final rule titled, “Implementation of the Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, and Changes to National Endorsements” in the Federal Register on December 24, 2013 (78 FR 77796) that implements the STCW Convention and STCW Code, including the 2010 amendments. The Coast Guard is publishing this NVIC to provide guidance on complying with these regulations.

5. DISCLAIMER. This guidance is not a substitute for applicable legal requirements, nor is it itself a regulation. It is not intended to, nor does it impose legally binding requirements on any party. It represents the Coast Guard's current thinking on this topic and is issued for guidance purposes to outline methods of best practice for compliance with applicable law. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations.

6. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS.

   a. The development of this NVIC and the general policies contained within it have been thoroughly reviewed by the originating office, and are categorically excluded (CE) under current USCG CE # 33 from further environmental analysis, in accordance with Section 2.B.2. and Figure 2-1 of the National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts, COMDTINST M16475.1 (series). Because this NVIC implements, without substantive change, the applicable Commandant Instruction or other federal agency regulations, procedures, manuals, and other guidance documents, Coast Guard categorical exclusion #33 is appropriate

   b. This NVIC will not have any of the following: significant cumulative impacts on the human environment; substantial controversy or substantial change to existing environmental conditions; or inconsistencies with any Federal, State, or local laws or administrative determinations relating to the environment. All future specific actions resulting from the general policies in this NVIC must be individually evaluated for compliance with the National Environmental Policy Act (NEPA), DHS and Coast Guard NEPA policy, and compliance with all other environmental mandates.

7. DISTRIBUTION. No paper distribution will be made of this NVIC. An electronic version will be located at https://www.dco.uscg.mil/Our-Organization/NVIC/.

8. RECORDS MANAGEMENT CONSIDERATIONS. This NVIC has been thoroughly reviewed during the directives clearance process, and it has been determined there are no further records scheduling requirements, in accordance with the Federal Records Act (44 U.S.C. 3101 et seq.), NARA requirements, and the Information and Life Cycle Management Manual, COMDTINST M5212.12 (series). This policy does not create significant or substantial change to existing records management requirements.

9. FORMS/REPORTS. None.

10. REQUEST FOR CHANGES. All requests for changes and questions regarding implementation of this NVIC should be directed to the Mariner Credentialing Program Policy Division (CG-MMC-2), at (202) 372-2357 or MMCPolicy@uscg.mil. To obtain approval for a training course or program, or for an alternative to the assessments in Enclosure (2) of this NVIC, please contact the NMC at IAskNMC@uscg.mil or (888) 427-5662.

J. P. NADEAU
Rear Admiral, U. S. Coast Guard
Assistant Commandant for Prevention Policy

Encl: (1) Qualification Requirements for STCW Endorsements as Officer in Charge of a Navigational Watch of Vessels of Less Than 500 GT

(2) Assessment Guidelines for Officer in Charge of a Navigational Watch of Vessels of Less Than 500 GT

(3) Record of Assessment for Officer in Charge of a Navigational Watch of Vessels of Less Than 500 GT

QUALIFICATION REQUIREMENTS FOR STCW ENDORSEMENTS AS OFFICER IN CHARGE OF A NAVIGATIONAL WATCH OF VESSELS OF LESS THAN 500 GT

1. GENERAL. This enclosure provides guidance to qualify for STCW endorsements as Officer in Charge of a Navigational Watch (OICNW) of Vessels of Less Than 500 Gross Tons (GT) that are valid upon all waters (i.e., not limited to near-coastal waters) in accordance with Section A-II/1 of the STCW Code and 46 Code of Federal Regulations (CFR) 11.319.

   Although Section A-II/1 of the STCW Code is titled "Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 GT or more" [emphasis added], Regulation II/3, paragraph 1 of the STCW Convention specifies that officers in charge of a navigational watch on seagoing vessels of less than 500 GT that are not engaged on near coastal voyages must meet the competency standards for vessels of 500 GT or more. Accordingly, the applicable standard for this endorsement is Section II/1 of the STCW Code, and not Section II/3 which is only applicable to vessels that are engaged on near-coastal voyages.

   As specified in 46 CFR 11.201(a), an applicant for any STCW endorsement must hold the appropriate national endorsement. To be eligible for an STCW endorsement as OICNW for less than 500 GT, mariners must hold or qualify for any national endorsement authorizing service as mate or master on oceans routes, other than Operator of Uninspected Passenger Vessels (OUPV).

2. SEA SERVICE, TRAINING, AND STANDARD OF COMPETENCE

   a. Sea Service. As specified in 46 CFR 11.319(a)(1), an applicant for an STCW endorsement as OICNW of Vessels of Less Than 500 GT must provide evidence of:

      1) At least 36 months of service in the deck department on vessels operating in oceans, near-coastal waters, and/or Great Lakes. Service on inland waters that are navigable waters of the United States may be substituted for up to 50 percent of the total required service. Experience gained in the engine department on vessels may be creditable for up to 3 months of the service requirements; or

      2) At least 12 months of seagoing service as part of an approved training program that includes onboard training that meets the requirements of Section A-II/1 of the STCW Code.

   Applicants must provide evidence of having performed bridge watchkeeping duties, under the supervision of an officer holding the STCW endorsement as Master, Chief Mate, or OICNW, for a period of not less than 6 months during the required seagoing service. The Coast Guard will accept service on vessels as boatswain, able seaman, or quartermaster while holding the appropriate deck watchkeeping rating endorsement, which may be accepted on a two-for-one basis (6 months of experience equals 3 months of creditable service) to a maximum allowable substitution of 3 months of creditable service. 46 CFR 11.319(a)(2).

b. Training. As specified in 46 CFR 11.319(a)(4), an applicant for an STCW endorsement as OICNW of Vessels of Less Than 500 GT must provide evidence of having satisfactorily completed Coast Guard approved training for:

1) Medical First Aid Provider;

2) Radar Observer, to be valid for vessels with this equipment;

3) Watchkeeping, including COLREGS and IMO Standard Marine Communication Phrases (SMCP);

4) Proficiency in Survival Craft and Rescue Boats Other Than Fast Rescue Boats (PSC) or Proficiency in Survival Craft and Rescue Boats Other Than Lifeboats and Fast Rescue Boats (PSC-Limited). If this training was completed more than 5 years before the date of application, the applicant must provide evidence of maintaining the standard of competence as specified in 46 CFR 12.613 or 12.615, as appropriate;

5) Visual Signaling;

6) Bridge Resource Management;

7) Automatic Radar Plotting Aids (ARPA), to be valid for vessels with this equipment;

8) Global Maritime Distress and Safety System (GMDSS), to be valid for vessels with this equipment;

9) Electronic Chart Display Information Systems (ECDIS), to be valid for vessels with this equipment;

10) Basic Training (46 CFR 11.302). If this training was completed more than 5 years before the date of application, the applicant must provide evidence of maintaining the standard of competence as specified in 46 CFR 11.302(b); and

11) Advanced Firefighting (46 CFR 11.303). If this training was completed more than 5 years before the date of application, the applicant must provide evidence of maintaining the standard of competence as specified in 46 CFR 11.303(b).

c. Standard of competence. Regulation II/3 of the STCW Code provides that every officer in charge of a navigational watch serving on a vessel of less than 500 GT that is not engaged on near-coastal voyages should meet the same competency standards as officers in charge of a navigational watch serving on vessels between 500 GT or more. As specified in 46 CFR 11.319(a)(3), an applicant for an STCW endorsement as OICNW of Vessels of Less Than 500 GT must provide evidence of meeting the standard of competence in Section A-II/1 of the STCW Code (incorporated by reference, see 46 CFR 11.102). The assessment guidelines in Enclosure (2) may be used for this purpose.

3. RENEWAL OF ENDORSEMENTS

a. To renew an STCW endorsement as OICNW of Vessels of Less Than 500 GT (not limited to near-coastal waters) mariners must meet the applicable requirements in 46 CFR 10.227 to renew their national endorsement and provide evidence of:

1) Meeting the standard of competence for Leadership and Teamworking Skills, unless met previously (46 CFR 11.319(b)(1)). Task nos. 18.1.A through 18.5.A in Enclosure (2) may be used for this purpose;

2) Completion of approved or accepted training for ECDIS, to be valid on a vessel with this equipment (46 CFR 11.319(b)(2));

3) Maintaining the standard of competence in standard of competence for Basic Training (46 CFR 11.302(b)) and Advanced Firefighting (46 CFR 11.303(b)); and

4) Maintaining the standard of competence for Proficiency in Survival Craft (46 CFR 12.613) or Proficiency in Survival Craft-Limited (46 CFR 12.615), as appropriate, to serve as Lifeboatman or the person in charge of a survival craft.

Assessment Guidelines for Officer in Charge of a Navigational Watch on Vessels of Less Than 500 GT

Standard of Competence

As specified in 46 CFR 11.319(a)(3), every candidate for an endorsement as Officer in Charge of a Navigational Watch (OICNW) of Vessels of Less Than 500 GT must provide evidence of achieving the standard of competence specified in Table A-II/1 of the STCW Code.

Although Section A-II/1 of the STCW Code is titled "Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of *500 GT or more*" [emphasis added], Regulation II/3, paragraph 1 of the STCW Convention specifies that officers in charge of a navigational watch on seagoing vessels of less than 500 GT that are not engaged on near coastal voyages must meet the competency standards for vessels of 500 GT or more. Accordingly, the applicable standard for this endorsement is Section II/1 of the STCW Code, and not Section II/3 which is only applicable to vessels engaged on near-coastal voyages.

The table below is adopted from Table A-II/1 of the STCW Code to assist the candidate and assessor in the demonstration of competency.

Practical Skill Demonstrations

These assessment guidelines establish the conditions under which assessments will occur, the performance or behavior the candidate is to accomplish, and the standards against which the performance is measured.

Qualified Assessors

A shipboard Qualified Assessor (QA) who witnesses a practical demonstration may sign the appropriate blocks and pages in the Record of Assessment in Enclosure (3) or an equivalent record. All assessments must be signed by a qualified assessor approved by the Coast Guard in accordance with 46 CFR 10.405. In order to facilitate the transition to this new requirement, the Coast Guard will accept assessments that have been demonstrated in the presence of, and signed by, an assessor who has not been Coast Guard approved conducted before January 1, 2020, provided that the assessor meets the professional requirements in 46 CFR 10.405(a)(3) to assess competence for the specific endorsement. These assessments must be submitted to the Coast Guard as part of a complete application no later than June 30, 2020. Assessors must be in possession of the level of endorsement, or other professional credential, which provides proof that he or she has attained a level of experience and qualification equal or superior to the relevant level of knowledge, skills, and abilities to be assessed (46 CFR 10.405(a)(3)). In the interim, the Coast Guard will accept assessments signed by mariners holding an appropriate national endorsement and have at least 1 year of experience as OICNW on vessels of at least 100 GRT. After December 31, 2019, QAs must be approved by the National Maritime Center (46 CFR 10.405). For assessments signed on a military vessel, the assessor should be authorized to conduct similar assessments for the U.S. Army, U.S. Navy, or U.S. Coast Guard Personnel Qualification Standard (PQS) for underway officer of the deck (OOD). After December 31, 2019, QAs must be approved by the National Maritime Center to conduct the assessment (46 CFR 10.405). Qualified military personnel authorized to conduct similar assessments for the U.S. Army, U.S. Navy, or U.S. Coast Guard PQS for OOD need not be approved QAs and may continue to sign assessments on military vessels after December 31, 2019.

Successful completion of these Assessment Guidelines will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative guidelines must be approved by the National Maritime Center before use.

Notes

The following notes are used in the "Task No." column of the assessment table that follows:

Note 1 The assessment is not required for a mariner previously qualified to hold an STCW endorsement as OICNW of Vessels of Less Than 500 GT that is limited to near-coastal waters and is not limited to domestic voyages.

Note 2 The assessment is the same as one for STCW endorsements as OICNW of Vessels of 500 GT or More, mariners will not need to repeat the assessment when upgrading to that endorsement. When qualifying for an STCW endorsement as OICNW of Vessels of 500 GT or More, mariners may omit the similar assessment with the same Task No. described in NVIC 12-14 for OICNW of Vessels of 500 GT.

Note 3 Mariners may substitute completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii) for this task.

Note 4 Mariners may substitute completion of the approved Ship Handling course specified in 46 CFR 11.309(a)(4)(xi) for this task.

Note 5 Mariners may substitute completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii) for this task.

Note 6 Mariners may substitute completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x) for this task.

Radar The assessment is not required for mariners serving exclusively on vessels not fitted with radar; a limitation will be added to the OICNW endorsement indicating that it is not valid on vessels equipped with radar.

ARPA The assessment is not required for mariners serving exclusively on vessels not fitted with an Automatic Radar Plotting Aid (ARPA); a limitation will be added to the OICNW endorsement indicating that it is not valid on vessels equipped with ARPA.

ECDIS The assessment is not required for mariners serving exclusively on vessels not fitted with an Electronic Chart Display Information System (ECDIS); a limitation will be added to the endorsement indicating that it is not valid on vessels equipped with ECDIS.

Course The Knowledge, Understanding and Proficiency (KUP) is demonstrated by completing an approved course that is required for the endorsement.

Numbering gaps in the sequence of assessments are intentional to allow easy correlation to corresponding assessments in NVIC 12-14 for OICNW endorsements for Vessels of 500 GT or More.

Successful completion of these Assessment Guidelines will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative guidelines must be approved by the National Maritime Center before use.

Assessment Guidelines for Officer in Charge of a Navigational Watch on Vessels of Less Than 500 GT

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.1.A Adjust a sextant *Note 2*	Plan and conduct a passage and determine position	*Celestial navigation* Ability to use celestial bodies to determine the vessel's position	On a vessel or in a navigation laboratory, given a standard marine sextant with the capability for a perpendicularity error, side error, error, and collimation error,	the candidate detects and corrects adjustable sextant errors in accordance with industry standards.	1. The candidate removes the adjustable sextant errors in the following order: a. Perpendicularity; b. Side error; and c. Collimation error. 2. The candidate's remaining index error is less than 0.5 minutes of arc as determined by the assessor.
1.1.B Measure the altitude of the sun *Note 2*	Plan and conduct a passage and determine position	*Celestial navigation* Ability to use celestial bodies to determine the vessel's position	On a vessel or on shore, given a standard marine sextant, a clear or simulated horizon, a visible sun, and an accurate time,	the candidate measures the altitude of the lower limb of the sun and accurately records the time of the observation.	The candidate's: 1. Altitude is within 0.5 minutes of arc, after correction for index error, compared with the assessor's solution; and 2. Time is within 2.0 seconds of the assessor's solution.
1.1.C Measure the altitude of at least 3 stars *Note 2*	Plan and conduct a passage and determine position	*Celestial navigation* Ability to use celestial bodies to determine the vessel's position	On a vessel or on shore, given a marine sextant, a clear or simulated horizon, a clear or partly cloudy sky, and an accurate time, during a single twilight,	the candidate measures the altitude of three stars and accurately records the time of the observation of each star.	The candidate's: 1. Altitude is within 2.0 minutes of arc, after correction for index error, compared with the assessor's solution; and 2. Time is within 2.0 seconds of the assessor's solution.

Successful completion of these Assessment Guidelines will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative guidelines must be approved by the National Maritime Center before use.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.1.D Measure altitude of the sun at meridian passage (LAN) *Note 2*	Plan and conduct a passage and determine position	*Celestial navigation* Ability to use celestial bodies to determine the vessel's position	On a vessel or on shore, given a standard marine sextant, a clear or simulated horizon, a clear or partly cloudy sky,	the candidate measures the altitude of the sun as it transits the vessel's meridian.	The candidate's altitude is within 1.0 minutes of arc, after correction for index error, of the assessor's solution measured at meridian passage.
1.1.E Celestial running fix *Note 2*	Plan and conduct a passage and determine position	*Celestial navigation* Ability to use celestial bodies to determine the vessel's position	On a vessel, or in a navigation laboratory, when given assumed positions, intercepts, azimuths, times of 3 observations of the sun, and a standard plotting sheet appropriate for the DR position,	the candidate advances all 3 lines of position to a common time. *Electronic nautical almanac and celestial navigation calculation software may be used.*	The candidate's position of the running fix is within 2.0 nm of the assessor's solution.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.1.F Plot star fix *Note 2*	Plan and conduct a passage and determine position	*Celestial navigation* Ability to use celestial bodies to determine the vessel's position	On a vessel, or in a navigation laboratory, when given assumed positions, intercepts, azimuths, times of 3 observations of the stars and a standard plotting sheet appropriate for the DR position,	the candidate plots the 3 lines of position and advances them to a common time. *Electronic nautical almanac and celestial navigation calculation software may be used.*	The candidate's position of the running fix is within 2.0 nm of the assessor's solution.
1.2.A Position fix by two bearings *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Terrestrial and coastal navigation* Ability to determine the vessel's position by use of: .1 Landmarks .2 Aids to navigation. 3 Dead reckoning	On a vessel underway, or on a simulator, with land and aids to navigation in sight, using a standard bearing circle, alidade, or other device for taking bearings, and given a chart with a scale of not more than 1:150,000,	the candidate determines the bearings of at least 2 charted objects and plots them.	The candidate's: 1. Position is within 0.10 nm of the assessor's solution; 2. Crossing angles of bearing is not less than 30° nor more than 160° between bearings; 3. Bearings of objects abeam or close to the beam are observed first; and 4. The chart in use is the largest scale suitable for the waters being transited.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.2.B Plot Estimated position *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Terrestrial and coastal navigation* Ability to determine the vessel's position by use of: .1 Landmarks .2 Aids to navigation .3 Dead reckoning	On a vessel underway, or on a simulator, using a standard plotting sheet or chart, and given the vessel's speed made good and course made good for the past 6 hours,	the candidate plots the vessel's estimated position for every hour for the duration of the watch.	The candidate's positions are within 0.25 nm of the assessor's solutions.
1.2.C Determine the course to steer *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Terrestrial and coastal navigation* Ability to determine the vessel's position by use of: .1 Landmarks .2 Aids to navigation .3 Dead reckoning	On a vessel, on a simulator, or in a navigation laboratory, with the vessel's speed at least 10 knots, and using a plotting sheet or chart, when encountering wind and current, which sets the vessel,	the candidate plots the vessel's position on at least 2 occasions not less than 30 minutes apart, calculates set and drift by vector analysis, and determines the course to steer to make the intended course.	The course to steer determined by the candidate is within 5.0° of the assessor's solution.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.3.A Correction of charts and publications *Note 1* *Note 2*	Plan and conduct a passage and determine position	Thorough knowledge of and ability to use nautical charts, and publications, such as sailing directions, tide tables, notices to mariners, radio navigational warnings and ships' routing information	On a vessel, or in a navigational laboratory, given notices to mariners and uncorrected charts, and publications,	the candidate makes at least 5 chart corrections and 3 publication corrections.	The candidate: 1. Identifies charts and publications needing correction; 2. Correctly makes corrections to the affected charts and publications; 3. Records all chart corrections on the chart and in the chart-correction record or on the chart-correction spreadsheet; and 4. Records corrections to all publications on the correction page of the publication and on the publication-correction card or the publication-correction spreadsheet.
1.3.B Chart selection *Note 1* *Note 2*	Plan and conduct a passage and determine position	Thorough knowledge of and ability to use nautical charts, and publications, such as sailing directions, tide tables, notices to mariners, radio navigational warnings and vessel routing information	On a vessel, or in a navigational laboratory, given a voyage of at least 500 nm between the port of departure and the port of arrival, and given the appropriate chart catalog,	the candidate identifies the charts needed for the voyage.	The candidate: 1. Correctly identifies and records the names and numbers of the charts; 2. Selects the charts with the largest scales appropriate for the area being transited; and 3. Ensures that there is no gap in chart coverage for any part of the voyage requiring coastal navigation between departure and arrival at any port.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.3.C Route planning *Note 1* *Note 2*	Plan and conduct a passage and determine position	Thorough knowledge of and ability to use nautical charts, and publications, such as sailing directions, tide tables, notices to mariners, radio navigational warnings and vessel routing information	On a vessel, or in a navigation laboratory, when given 3 waypoints consisting of a position of departure, a position of arrival, and one other way-point, with a total distance of more than 500 nm,	the candidate determines the appropriate courses and distances between waypoints, and plots the intended courses on the charts selected.	The candidate: 1. Correctly calculates courses and distances between waypoints; 2. Ensures that the route is the most direct; and 3. Plots the courses on the appropriately scaled charts noting the ETA at each waypoint, including the final waypoint.
1.4.A Position fix by two ranges *Note 2* *Radar*	Plan and conduct a passage and determine position	*Electronic systems of position fixing and navigation* Ability to determine the vessel's position by use of electronic navigational aids	Using a marine radar or radar simulator meeting applicable performance standards, with land and navigational aids displayed, and given a chart with a scale of not more than 1:150,000,	the candidate determines 2 or more ranges measured from identified charted objects or points of land and plots them.	The candidate's position is within 0.10 nm of the assessor's position.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.4.B Position fix by tangents to identified objects *Note 2* *Radar*	Plan and conduct a passage and determine position	*Electronic systems of position fixing and navigation* Ability to determine the vessel's position by use of electronic navigational aids	Using a marine radar or a radar simulator meeting applicable performance standards, with land and navigational aids displayed, and given a chart with a scale of not more than 1:150,000,	the candidate determines 2 or more tangents measured from identified-charted objects or points of land and plots them.	The candidate's position is within 0.10 nm of the assessor's position.
1.4.C Position fix by GPS *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Electronic systems of position fixing and navigation* Ability to determine the vessel's position by use of electronic navigational aids	On a vessel underway, on a simulator, or in a navigation laboratory, using a GPS receiver meeting IMO standards,	the candidate initializes the GPS receiver, determines the vessel's position and evaluates the accuracy of that position by independent methods.	The candidate: 1. Initializes the system; and 2. Determines the accuracy of the position.
1.4.D Use of GPS position save function *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Electronic systems of position fixing and navigation* Ability to determine the vessel's position by use of electronic navigational aids	On a vessel underway, on a simulator, or in a navigation laboratory, using a GPS receiver meeting IMO standards, when hearing "Man Overboard,"	the candidate activates the man overboard/ emergency position save function.	The candidate saves or records the vessel's position within 1 minute of hearing "Man Overboard."

Successful completion of these Assessment Guidelines will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative guidelines must be approved by the National Maritime Center before use.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.5.A Use of echo sounder *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Echo-sounders* Ability to operate the equipment and apply the information correctly	On a vessel underway, using an echo sounder meeting IMO standards or a part-task simulator that realistically simulates all the functions and controls of an echo sounder meeting IMO standards,	the candidate turns on, tests, and operates the echo sounder.	The candidate: 1. Turns the system on; 2. Tests the echo sounder in accordance with manufacturer's recommendations; 3. Notes the correct UTC on the echo sounder paper (if fitted); 4. Ensures that the scale selected is the lowest appropriate for the vessel's draft and the depth of water of the area of transit; and 5. Adjusts the sensitivity to obtain proper depth reading on the display and correct trace on the paper (if fitted).
1.6.A Magnetic variation *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Knowledge of the principles of the magnetic and gyro-compass	On a vessel, or in a navigation laboratory, when asked to describe variation,	the candidate describes variation.	The candidate's description includes: 1. Comparing the locations of the geographic and magnetic poles; and 2. Explaining why an annual change correction is needed.
1.6.B Correct for true heading *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Knowledge of the principles of magnetic and gyro-compasses	On a vessel, or in a navigation laboratory, when given a magnetic heading bearing and using the chart provided,	the candidate calculates the true heading.	The candidate's heading is corrected for variation found on the chart provided and the solution matches the correct true heading within 0.5º.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.6.C Compass deviation *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Knowledge of the principles of magnetic and gyro-compasses	On a vessel, or in a navigation laboratory, when asked to describe deviation,	the candidate describes deviation.	The candidate's description includes: 1. Cause of permanent deviation aboard ship; 2. Induced causes of deviation aboard ship; and 3. An explanation of why deviation changes over time, heading, loaded condition; and onboard equipment location.
1.6.D Magnetic compass correction *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Knowledge of the principles of magnetic and gyrocompass	On a vessel, or in a navigation laboratory, when given a magnetic heading bearing and using a deviation table,	the candidate calculates the correct compass heading.	The candidate corrects the compass heading deviation and the solution matches the assessor's solution.
1.7.A Determine the gyro-compass error by bearing of range *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Ability to determine errors of the magnetic and gyro-compasses, using celestial and terrestrial means, and to allow for such errors	On a vessel underway or on a simulator, using navigational or natural terrestrial ranges,	the candidate takes a visual bearing of the range and determines the gyro-compass error.	The candidate: 1. Compares the visual bearing to the charted bearing; 2. Determines the gyro-compass error and properly labels it; and 3. Determines the gyro-compass error to within 1.0° of the assessor's solution.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.7.D Determine course to steer by magnetic compass *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Ability to determine errors of magnetic and gyro-compasses, using celestial and terrestrial means, and to allow for such errors	On a vessel underway or on a simulator, equipped with both a magnetic and gyrocompass, and given a deviation table,	the candidate correctly applies the deviation and variation to the compass course to ascertain the true course.	The candidate correctly applies the compass error to obtain the true course and the solution is within 1.0° of the assessor's solution.
1.7.E Position fix by magnetic compass bearings *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Ability to determine errors of the magnetic and gyro-compasses, using celestial and terrestrial means, and to allow for such errors	Aboard a vessel underway or on a simulator, equipped with both a magnetic and gyrocompass, and given a deviation table, and a chart with a scale of not more than 1:150,000,	the candidate correctly applies the compass error to the compass bearings by magnetic compass of at least 2 charted objects and plots them on the chart in use.	The candidate: 1. Correctly applies compass error to the magnetic compass bearings of the charted objects; and 2. Determines the objects' position to within 1.0° of the assessor's solution.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.7.F Azimuth of the sun *Note 2*	Plan and conduct a passage and determine position	*Compass – magnetic and gyro* Ability to determine errors of the magnetic and gyro-compasses, using celestial and terrestrial means, and to allow for such errors	Aboard a vessel underway, and using a standard azimuth circle,	the candidate reads the gyrocompass bearing of the sun and determines gyrocompass error. *Electronic nautical almanac and celestial navigation calculation software may be used.*	The candidate: 1. Reads the azimuth of the sun when the repeater is level; 2. Notes the time of the reading; 3. Determines the true azimuth of the sun for the time of the reading; 4. Compares the gyro-compass to the true azimuth and determines gyro error; and 5. Determines gyro-compass error to within 1.0° of the assessor's solution.
1.8.A Steering gear test *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Steering control system* Knowledge of steering control systems, operational procedures and change-over from manual to automatic control and vice versa. Adjustment of controls for optimum performance	Aboard a vessel or on a simulator,	the candidate conducts the pre-departure test of the vessel's steering gear.	The candidate: 1. Turns on the steering control system; 2. Aligns the steering gyro-repeater with the master gyro-compass; 3. Tests the controls for switching pumps and motors between the port and starboard steering systems after the required warm-up period; and 4. Tests the steering systems as follows: a. When the control is switched to hand steering, the rudder is tested throughout its full range of motion; and b. When the control is switched to non-follow-up, the rudder is tested throughout its full range of motion.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.8.B Set weather controls *Note 1* *Note 2*	Plan and conduct a passage and determine position	*Steering control system* Knowledge of steering control systems, operational procedures and change-over from manual to automatic control and vice versa. Adjustment of controls for optimum performance	On a vessel underway or on a simulator equipped with rudder and weather controls, while in auto-pilot,	the candidate sets the rudder and weather controls that are most suitable for the weather and sea conditions.	The candidate sets the: 1. Weather control in accordance with the manufacturer's recommendations for the prevailing sea conditions for the area transited or simulated; and 2. Rate of turn control (if fitted) in accordance with the standing orders.
1.9.A Read barometric pressure *Note 1* *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Ability to use and interpret information obtained from shipborne meteorological instruments	Aboard a vessel or in a laboratory, and using a barometer,	the candidate determines the barometric pressure in millibars, inches, or millimeters of mercury.	The candidate: 1. Reads the barometer and applies the appropriate corrections; and 2. Determines the barometric pressure to within 0.5 millibar, 0.02 inch or 0.4 millimeter of the assessor's corrected reading. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.9.B Determine true wind speed and direction *Note 1* *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Ability to use and interpret information obtained from shipborne meteorological instruments	Aboard a vessel underway or in a laboratory, using an anemometer,	the candidate determines true wind speed and direction.	The candidate converts the apparent wind speed and direction to true wind speed and direction, and the solution is within 10° for direction and 5 knots for speed of the assessor's solution. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).
1.10.A Properties of a cold front *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	Aboard a vessel, or in a laboratory when asked to describe the characteristics of a cold front,	the candidate describes the characteristics of a cold front.	The candidate's description includes the depiction of the front on a weather map and the expected: 1. Change in the barometer as the front approaches; 2. Change in the barometer after the front passes; 3. Temperature change as the front passes; 4. Wind shift as the front passes; and 5. Precipitation as the front passes. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.10.B Properties of a warm front *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	Aboard a vessel, or in a laboratory, when asked to describe the characteristics of a warm front,	the candidate describes the characteristics of a warm front.	The candidate's description includes the depiction of the front on a weather map and the expected: 1. Change in the barometer as the front approaches; 2. Change in the barometer after the front passes; 3. Temperature change as the front passes; 4. Wind shift as the front passes; and 5. Precipitation as the front passes. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).
1.10.C Properties of an occluded front *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	Aboard a vessel, or in a laboratory, when asked to describe the characteristics of an occluded front,	the candidate describes the characteristics of an occluded front.	The candidate's description includes the depiction of the front on a weather map and the expected: 1. Change in the barometer as the front approaches and after it passes; 2. Temperature change as the front passes; 3. Wind shift as the front passes; and 4. Precipitation as the front passes. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.10.D Properties of a low pressure area *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	Aboard a vessel, or in a laboratory when asked to describe the characteristics of low pressure area	the candidate describes the characteristics of a low pressure area.	The candidate's description includes the depiction of the low on a weather map and the expected: 1. Change in the barometer as the center of the low pressure system approaches; 2. Change in the barometer after the center of the low passes; 3. Wind shift as the low passes; and 4. Precipitation as the low passes. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).
1.10.E Properties of a high pressure area *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	Aboard a vessel, or in a laboratory, when asked to describe the characteristics of a high pressure area,	the candidate describes the characteristics of a high pressure area.	The candidate's description includes the depiction of the high on a weather map and the expected: 1. Change in the barometer as the center of the high pressure system approaches; 2. Change in the barometer after the center of the high passes; 3. Wind shift as the high passes; and 4. Precipitation as the high passes. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.10.F Properties and expected locations of weather systems *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	Aboard a vessel, or in a laboratory, when asked to describe the characteristics and expected locations of weather systems,	the candidate describes the characteristics and expected locations of weather systems.	The candidate's description includes the: 1. Doldrums; 2. Trade winds; 3. Horse latitudes; 4. Prevailing westerlies; and 5. Polar winds. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).
1.10.G Determine expected weather conditions *Note 1* *Note 3*	Plan and conduct a passage and determine position	*Meteorology* Ability to apply the meteorological information available	Aboard a vessel or in a laboratory, and using the surface, upper air, and sea state analysis weather maps,	the candidate determines the weather to be encountered during the next 24-hour period.	The candidate's determinations of expected wind, sea, and weather conditions (types and amount of cloud cover, rain, and fog) are based on standard meteorological principles and agree with the assessor's determinations based on the movement of the systems and fronts. **NOTE**: This KUP may also be demonstrated by completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.1.A Identify light configurations *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	At night, on a vessel underway, on a simulator, or using laboratory equipment,	the candidate identifies vessels from their light configurations.	The candidate correctly identifies the situation or occupation of 4 of 5 vessels that have different light configurations.
2.1.B Identify day shapes *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	In daylight, on a vessel underway, on a simulator, or in a laboratory,	the candidate identifies vessels from their required shapes.	The candidate correctly identifies the situation or occupation of 4 of 5 vessels that show different required shapes.
2.1.C Identify sound signals *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	In restricted visibility, on a vessel underway, on a simulator, or in a laboratory,	the candidate identifies vessels by hearing their required sound signals.	The candidate correctly identifies the situation or occupation of 4 of 5 vessels that sound different required signals.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.1.D Determine risk of collision *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	On a vessel underway, or on a simulator, using a magnetic compass, gyrocompass repeater (if fitted), azimuth circle, bearing circle or alidade, or other means resulting in equivalent accuracy,	the candidate determines if risk of collision exists with approaching meeting, crossing, and overtaking vessels.	The candidate: 1. Takes 2 visual bearings of an approaching vessel using an azimuth circle, bearing circle, alidade, or other means of equivalent accuracy, to determine if the bearing to the approaching vessel is appreciably changing, and each observation is within 2.0° of the assessor's solution; and 2. If fitted with radar or ARPA, takes 2 electronic bearings of an approaching vessel using radar or ARPA, to determine if the bearing to the approaching vessel is appreciably changing, and each observation is within 2.0° of the assessor's solution.
2.1.E Maneuver to avoid risk of collision – crossing *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	On a vessel underway, or on a simulator, when risk of collision exists with an approaching crossing vessel (from the candidate's starboard side at a relative bearing of between 30° and 112.5°) in good visibility in the open ocean,	the candidate correctly applies the Rules of the Road and if required, maneuvers the vessel to avoid collision.	The candidate: 1. Determines the aspect of the approaching vessel; 2. Identifies the situation as a crossing situation; 3. Takes positive action in ample time in accordance with the Steering and Sailing Rules to achieve a CPA of at least 3.0 nm; and 4. Makes speed or course changes that are large enough to be readily apparent to another vessel observing visually or by radar.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.1.F Maneuver to avoid risk of collision – meeting *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	On a vessel underway, or on a simulator, when risk of collision with an approaching meeting vessel exists in good visibility in the open ocean,	the candidate correctly applies the Rules of the Road and if required, maneuvers the vessel to avoid collision.	The candidate: 1. Determines the aspect of the approaching vessel; 2. Identifies the situation as a meeting situation; 3. Takes positive action in ample time in accordance with the Steering and Sailing Rules to achieve a CPA of at least 1.0 nm; and 4. Makes speed or course changes that are large enough to be readily apparent to another vessel observing visually or by radar.
2.1.G Maneuver to avoid risk of collision – overtaking *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	On a vessel underway, or on a simulator, when risk of collision with an approaching overtaking vessel exists in good visibility in the open ocean,	the candidate correctly applies the Rules of the Road and if required, maneuvers the vessel to avoid collision.	The candidate: 1. Determines the aspect of the approaching vessel; 2. Identifies the situation as an overtaking situation; 3. Attempts VHF communications with the overtaking vessel; 4. Sounds the danger signal, if required by the rules; 5. Takes positive action in ample time in accordance with the Steering and Sailing Rules to achieve a CPA of at least 1.0 nm; and 6. Makes speed or course changes large enough to be readily apparent to another vessel observing visually or by radar.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.A Watch relief *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the principles to be observed in keeping a navigational watch	On a vessel underway,	the candidate properly relieves the watch in accordance with STCW Code Section A-VIII/2, Part 4-1, Paragraphs 21 and 22.	The candidate: 1. Reads the standing orders and night orders; 2. Determines and compares the vessel's position, course and speed with the DR position and track; 3. Notes the position of the next charted waypoint; 4. Verifies the identities of critical aids to navigation in sight; 5. Determines tides and current as necessary; 6. Checks and properly tunes the radar and/or ARPA, if fitted; 7. Checks any targets displayed on the radar or ARPA, if fitted; 8. Checks the heading by magnetic compass; 9. Determines the navigational hazards likely to be encountered during the watch; 10. Determines the possible effect of list, trim, water density and squat on under keel clearance; 11. Ensures that he/she receives courses, traffic, weather and any special instructions from the officer being relieved; and 12. Tells the officer being relieved that he or she is relieved.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.B Keep a safe navigation watch *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the principles to be observed in keeping a navigational watch	On a vessel underway,	the candidate keeps a safe and environmentally sound navigational watch in accordance with STCW Code Section A-VIII/2, Part 4-1, Paragraphs 23 to 50.	The candidate ensures that the: 1. Voyage plan is closely and continuously monitored; 2. Proper lookout is maintained by all available means; 3. Safe speed is maintained; 4. Position, course, and speed are checked at frequent intervals; 5. Steering mode selected is appropriate; 6. Under-keel clearance is suitable for the draft of the vessel at all times; 7. Course changes are made in accordance with the voyage plan; 8. Vessel's position is fixed and plotted on an appropriate chart at intervals suitable to the vessel's speed and the area being transited; 9. Identities of critical aids to navigation in sight are determined; 10. More than one method, including electronic and other navigational equipment, external fixed aids, geographic reference points, and hydrographic contours, is used to fix the vessel's position and check the accuracy of fixes; 11. Radio equipment is frequently checked and found to be functioning properly; *Continued on next page*

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.B *Cont'd* Keep a safe navigation watch *Note 1* *Note 2*					*Continued from previous page* 12. Risk of collision with approaching vessels is determined and if required, early and substantial action is taken in accordance with COLREGS; 13. Rudder and engine orders are executed as ordered; 14. Validity of the gyro input to all navigation equipment is verified; 15. Magnetic compass and gyro errors are determined by any available means and the error is logged; 16. Magnetic variation and compass deviation are correctly applied to courses and bearings; 17. Person steering is competent; 18. Tide and current conditions for the watch period are determined in coastal and tidal waters; 19. Set and drift are determined and applied; 20. Weather conditions are correctly and timely recorded and reported as required; 21. Running lights are checked throughout the watch period; 22. Master is notified as directed by all Master's or standing orders; 23. All relevant navigation information is used to identify protected marine habitats, areas and sanctuaries; and 24. All required log entries are made.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.C Notify Master when appropriate *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the principles to be observed in keeping a navigational watch	On a vessel when asked to describe when the Master should be notified of unusual or unexpected circumstances,	the candidate describes when to notify the Master in accordance with STCW Code Section A-VIII/2, Part 4-1, Paragraph 40.	The candidate's description includes notifying the Master immediately when: 1. Restricted visibility is encountered or expected; 2. Vessel traffic density or the movement of other vessels causes concern; 3. Difficulty is experienced in maintaining course; 4. Failure to sight land or a navigational mark, or to obtain soundings when expected; 5. Aids to navigation are not in position or are displaying incorrect characteristics; 6. Land or a navigational mark is sighted unexpectedly, or soundings change unexpectedly; 7. Engines or their control systems, steering, or any essential navigational equipment fails, or alarms or indicators for these systems fail; 8. Any radio equipment fails; 9. Concerns arise in heavy weather about damage to the vessel or cargo; 10. Any hazard to navigation that poses a threat to the vessel is noticed; 11. Any doubt about the vessel's safety or other emergency arises; or 12. Any changes are made to the voyage plan.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.D Keep a safe anchor watch *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the principles to be observed in keeping a navigational watch	On a vessel or in a laboratory, when asked to describe watchkeeping at anchor,	the candidate describes how to keep a safe anchor watch in accordance with STCW Code Section A-VIII/2, Part 4-1, Paragraph 51.	The candidate's description includes: 1. Determining the vessel's position and plotting the swing of the vessel; 2. Frequently checking the vessel's position by visual bearings; 3. Frequently checking the vessel's position by radar bearings and ranges from the same charted objects (if fitted with radar); 4. Establishing GPS anchor alarms; 5. Maintaining a proper lookout; 6. Periodic inspections are made; 7. When necessary, posting a rating at the anchor to carry out orders with respect to the anchor; 8. Monitoring of weather, tides, and sea state; 9. Notifying the Master immediately when the weather changes, visibility becomes restricted, or the anchor starts to drag; 10. Keeping engines ready for immediate use, where conditions require (open roadsteads, strong winds, or current and poor holding ground); and 11. Showing/sounding all required lights, shapes, and sounds.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.E Turn over a watch *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the principles to be observed in keeping a navigational watch	On a vessel underway,	the candidate properly turns the watch over.	The candidate ensures that: 1. DR position is plotted for the end of the watch; 2. Vessel's position is determined and plotted by all means appropriate to the area being transited; 3. Required weather data is read and recorded in the deck log; 4. Heading of the magnetic compass is checked and recorded; 5. Movement of all vessel traffic is checked by visual and electronic means immediately before relief; 6. Vessel's course and speed, special lookouts, steering mode in use, and weather and visibility are relayed to the relieving officer; 7. Any special instructions regarding occurrences during the past watch or which are expected during the next watch are related; 8. All relevant information concerning vessels in sight, or on the radar or ARPA (if fitted), is reported to the relieving officer; 9. The Master is notified if there is any doubt that the relieving officer is competent to perform his or her duties; 10. If the Master or pilot has the con, details concerning delegated responsibilities are relayed; and 11. The watch is not turned over during a maneuver or other action taken to avoid a hazard to navigation.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.3.A Voyage Planning – Appraisal *Note 2*	Maintain a safe navigational watch	*Watchkeeping* The use of routing in accordance with the General Provisions on Ships' Routing	On a vessel, in a simulator, or on a navigation laboratory, when given a port of departure and a port of arrival that are between 600 nm and 1,000 nm apart,	the candidate collects the information to plan a safe and environmentally sound voyage plan, taking into account paragraph 2 of the annex to IMO Assembly Resolution A893(21).	The candidate ensures that the following are taken into account when creating a voyage plan: 1. Condition of the vessel, its stability, equipment, operational limitations, draft, and maneuvering characteristics; 2. Any special characteristics of the cargo and its stowage; 3. Crewmembers' competency and rest status; 4. Validity of all vessel certificates and documents; 5. Up-to-date charts of proper scale, and the latest notices to mariners and radio navigational warnings; 6. Up-to-date coast pilots, sailing directions, and other information sources appropriate for the voyage; 7. Relevant routing guides; 8. Up-to-date tide and current tables and atlases; 9. Weather information; 10. Weather routing services; 11. Ship reporting systems, VTS, and environmental protection measures; 12. Vessel traffic density for the route; 13. Pilotage requirements and information exchange; and 14. Port information, including emergency response capability.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.3.B Voyage Planning – Planning *Note 2*	Maintain a safe navigational watch	*Watchkeeping* The use of routing in accordance with the General Provisions on Ships' Routing	On a vessel, on a simulator, or in a navigation laboratory, when given a port of departure and a port of arrival that are between 600 nm and 1,000 nm apart,	the candidate plans a safe and environmentally sound voyage plan, taking into account paragraph 3 of the annex to IMO Assembly Resolution A893(21).	The candidate: 1. Plots courses on appropriately scaled charts noting the ETA at each way point, including the final way point; 2. Correctly calculates and indicates courses and distances between way points on the charts; 3. Calculates the most direct route that avoids all hazards to navigation by a margin of safety of 3 nm; 4. Determines the areas of all required speed changes; 5. Determines positions requiring a change of machinery status; 6. Determines the waypoint for all course changes; 7. Determines the state of the tide and currents at the port of departure for the times of departure and transit; 8. Creates a contingency plan for alternative actions in cases of emergency; 9. Determines all relevant navigation information used to identify protected marine habitats, areas and sanctuaries; and 10. Reviews the voyage plan with the Master and deck officers.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.3.C Execute a voyage plan	Maintain a safe navigational watch	*Watchkeeping* The use of routing in accordance with the General Provisions on Ships' Routing	On a vessel or on a simulator, when given a voyage plan,	the candidate executes the plan, taking into account paragraph 4 and 5 of the annex to IMO Assembly Resolution A893(21).	The candidate: 1. Checks the reliability and condition of navigational equipment frequently; 2. Applies basic information obtained from tide tables and other navigational publications to determine under keel clearance; 3. Fixes position at appropriate intervals; 4. Frequently checks compasses; 5. Assesses meteorological information; 6. Determines compass error; 7. Applies set and drift and other needed course corrections; 8. Correctly operates and applies information from electronic navigation systems; 9. Correctly operates the radar and ARPA, if fitted, and applies the information for navigation and collision avoidance; 10. Correctly operates propulsion and steering systems to control heading and speed; 11. Initiates action in the event of a real or simulated equipment malfunction or failure of major items of equipment; 12. Correctly conducts radio-communications; 13. Monitors and correctly operates safety and alarm systems; and 14. Closely and continuously monitors the voyage plan.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.4.A Situational awareness *Note 2*	Maintain a safe navigational watch	*Watchkeeping* The use of information from navigational equipment for maintaining a safe navigational watch	On a vessel, or on a simulator during an exercise at sea, in clear visibility and with light to moderate traffic,	the candidate demonstrates, through the course of a full watch, the integration of navigational, bridge resource management, and seamanship skills.	The candidate maintains situational awareness regarding: 1. Hazards to navigation; 2. Navigational landmarks; 3. The vessel's location relative to the intended track; 4. Maritime traffic; 5. Weather; 6. Sea state; 7. Location and duties of watch partners; 8. Limitations in propulsion and steering systems; and 9. Maintaining appropriate communications.
2.5.A Navigate in restricted visibility *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* Knowledge of blind pilotage techniques	On a vessel underway or on a simulator during an exercise at sea, when visibility becomes restricted while underway,	the candidate recognizes the restricted visibility and takes appropriate action to navigate in restricted visibility in accordance with STCW Code Section A-VIII/2, Part 4-1, Paragraph 45.	The candidate: 1. Determines the restricted visibility; 2. Notifies Master of restricted visibility; 3. Switches to hand steering; 4. Posts proper lookout and turns running lights on; 5. Adjusts the vessel's speed per Rule 6; 6. Sounds the required sound signals; 7. Sets the radar and/or ARPA on the appropriate scale to scan at long range for other vessels (if fitted); 8. Plots all approaching targets on the radar or ARPA, if fitted; and 9. Uses radar or ARPA, if fitted, to obtain early warning of risk of collision and to determine the speed and direction of relative motion.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.6.A Vessel Traffic Systems *Note 1* *Note 2*	Maintain a safe navigational watch	*Watchkeeping* The use of reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures	On a vessel, or in a laboratory,	the candidate describes how to establish and maintain communications with a Vessel Traffic System (VTS).	The candidate describes procedures to: 1. Establish communications with a VTS; 2. Provide the initial information exchange as required by the VTS; 3. Update information during transit as required by the VTS; 4. Update information as required by the VTS, if the vessel anchors and/or berths; and 5. Close communications with the VTS as the vessel departs the VTS jurisdiction.
2.7.A Recognition of watch condition *Note 2*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a vessel, on a simulator, or in a laboratory, when asked to describe actions to be taken upon a change in watch condition,	the candidate describes when there is a need for additional personnel on the bridge and when to notify the Master.	The candidate's description includes notifying the Master immediately if: 1. Vessel encounters or expects to encounter restricted visibility; 2. There is cause for concern because of vessel traffic density or the movements of other vessels; 3. Vessel will transit restricted waters with vessel traffic; or 4. Fatigued to the point that decision making is affected.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.B BRM Condition III Collision Avoidance *Note 2 Radar*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a vessel at sea or on a simulator during an exercise at sea, and with a bridge team in place for navigating in congested near coastal waters (with or without reduced visibility), and with the candidate assigned to monitor vessel traffic, using radar and/or ARPA meeting all national and international performance requirements,	the candidate identifies all vessels (targets) posing a risk or danger of collision and provides appropriate information and recommendations on vessel traffic and any other situation or condition that may affect the safe navigation of the vessel to the conning officer.	The candidate: 1. Determines the risk and danger of collision of all approaching vessels within 6 minutes; 2. Immediately notifies the watch officer of the relative position of the threatening vessel, its CPA and TCPA; 3. Recommends course and/or speed changes in accordance with COLREGS to remove the risk of collision and prevent close-quarters situations from developing; 4. Ensures that all recommended course or speed changes result in increasing the CPA of approaching vessels identified as posing a risk or danger of collision; 5. Ensures that all recommended course changes provide sufficient sea room and bottom clearance for the area being transited; 6. Ensures that communications are clear, immediate, reliable, and relevant; and 7. Ensures that non-essential activities are avoided.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.C BRM Condition III Navigation *Note 2*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a ship at sea or in a simulator during an exercise at sea, and with a bridge team in place for navigating in congested near coastal waters (with or without reduced visibility), and with the candidate assigned to monitor the vessel's position, communicate on the VHF, and all other bridge duties, and while using all the bridge equipment identified in the performance standard,	the candidate determines and plots the vessel's position by electronic and visual means, communicates as required on the VHF, carries out all engine commands, ensures that all rudder commands are properly carried out, and makes all appropriate logbook entries.	The candidate: 1. Uses visual and electronic means to determine the vessel's position, including GPS or DGPS, echo sounder, and if fitted, radar, ARPA, and ECDIS; 2. Plots the vessel's position in accordance with tolerances stated previously at regular intervals appropriate to the vessel's speed and the area being transited; 3. Determines the correct courses to steer to maintain the vessel on the intended track and recommends them to the conning officer; 4. Answers all VHF calls to own vessel and makes calls to other vessels in the area and to port authorities as required; 5. Monitors the helmsman to ensure all rudder commands are carried out; 6. Ensures that communications are clear, immediate, reliable, and relevant; 7. Ensures that non-essential activities are avoided; and 8. Makes all required entries in the appropriate vessel's logs.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.D BRM Condition II or III – error trapping *Note 2*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a vessel or a simulator; with a bridge team navigating in congested near coastal waters in restricted visibility, traffic, with land and/or shoals affecting navigation, when one of the following occur: 1. Incorrect rudder order is given; 2. Rudder or engine command not given at proper time; 3. Navigational aid is misidentified; 4. Position is improperly fixed; or 5. Target vessel movements improperly stated;	the candidate monitors the vessel's movement, recognizes the erroneously-stated information about the vessel's position or target vessel's movement, and notifies the conning officer of specific questions regarding the vessel's situation.	The candidate: 1. Detects the misinformation or command error; and 2. Notifies the conning officer within 30 seconds of the occurrence of the error (for helm orders, the candidate detects the error and issues a corrective order consistent with the order from the conning officer within 5 seconds).

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.E BRM Condition II or III prioritization *Note 2*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a vessel at sea or on a simulator, with a bridge team navigating in congested near coastal waters with good visibility, and given the following: 1. Vessel on own starboard bow changes course creating risk of collision; 2. There is insufficient water depth to turn to starboard; 3. Vessel ahead on reciprocal course 1.5 nm away with a CPA of 0.5 nm to port; and 4. The GMDSS distress alarm sounds;	the candidate determines the appropriate action to take.	The candidate: 1. Assesses the situation; 2. Determines which priority action must be taken for the safety of the vessel; 3. Recommends that the engines be slowed or stopped in sufficient time to avoid the collision with the vessel on the starboard bow; and 4. Acknowledges the distress call after the danger of collision is over.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.F BRM Condition II Navigation and collision avoidance *Note 2*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a vessel at sea or on a simulator during an exercise at sea, when acting as part of the bridge team, and assigned duties to monitor the vessel's navigation and determine the risk of danger of collision with all vessels underway in open sea, using all the bridge equipment identified in the standard,	the candidate determines and plots the vessel's position at suitable intervals, and plots or systematically observes all approaching vessels and informs the bridge team of dangers to navigation, intended course changes, and vessels that pose a risk or danger of collision.	The candidate: 1. Determines the vessel's position and plots it at suitable intervals; 2. Identifies all aids to navigation; 3. Notifies the bridge team immediately of the following: a. When planned course changes must be made; b. Effects of tides or currents are setting the vessel off its intended course; or c. There is doubt about the vessel's position; 4. Determines by visual bearings and, if fitted, radar or/ARPA bearings that risk and danger of collision exists with approaching vessels in vicinity; and 5. Notifies the bridge team of the following: a. Danger or risk of collision exists with any approaching vessel; b. Recommended course change to avoid the risk or danger of collision; and c. Recommended speed change to avoid the risk or danger of collision if the engines are available.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.G BRM Condition III establish a bridge team *Note 2*	Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	On a vessel at sea or on a simulator during an exercise at sea, when ordered to establish a bridge team to monitor the vessel's navigation and determine the risk of collision with all vessels,	the candidate determines the number of persons required to safely navigate the vessel and assigns each specific duties and functions as part of the bridge team.	The candidate assigns bridge team duties, considering their background, experience, and abilities, for: 1. Conning; 2. Lookout; 3. Collision avoidance; 4. Navigation; 5. Communication; and 6. Administration.
3.1 Radar fundamentals *Radar Course*	Use of radar and ARPA to maintain safety of navigation	*Radar navigation* Knowledge of the fundamentals of radar and automatic radar plotting aids (ARPA)	This KUP is demonstrated if the candidate has successfully completed the Radar Observer course specified in 46 CFR 11.319(a)(3)(ii) within the previous 5 years or holds a valid Radar Observer (Unlimited) endorsement.		
3.2.A Set up and maintain radar display *Note 2* *Radar*	Use of radar and ARPA to maintain safety of navigation	*Radar navigation* Ability to operate and to interpret and analyze information obtained from radar, including setting up and maintaining displays	Using a radar or radar simulator meeting 33 CFR 164.38 and other applicable national and international performance standards,	the candidate sets up and maintains the radar display.	The candidate, within 3 minutes: 1. Switches the set from standby to transmit; 2. Selects the appropriate scale; 3. Adjusts the gain control so that targets and sea return appear; 4. Adjusts the tune control (if the unit is not self-tuning); 5. Adjusts the brilliance control; 6. Adjusts the sea clutter and rain clutter controls to suppress the rain and sea clutter without losing targets; and 7. Selects the north-up stabilized relative motion.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.2.B Switch display modes *Note 2 Radar*	Use of radar and ARPA to maintain safety of navigation	*Radar navigation* Ability to operate and to interpret and analyze information obtained from radar, including setting up and maintaining displays.	Using a radar or radar simulator meeting 33 CFR 164.38 and other applicable national and international performance standards,	the candidate switches the display from north-up stabilized relative motion to true motion to head-up, and states how to recognize the mode displayed.	Within 15 seconds, the candidate: 1. Switches the display from north-up stabilized relative motion to true motion; 2. Switches the display from true motion to head-up; and 3. Points to the location on the display of the information that indicates the mode displayed.
3.3.A Identify false echoes, sea return, racon and SART *Note 2 Radar*	Use of radar and ARPA to maintain safety of navigation	*Radar navigation* Ability to operate and to interpret and analyze information obtained from radar, including detection of misrepresentation of information, false echoes, sea return, etc., racons and SARTs	Using a radar or radar simulator that meets 33 CFR 164.38 and other applicable national and international performance standards,	the candidate identifies false echoes, sea return, a racon, and SARTs.	The candidate recognizes and correctly identifies: 1. False echoes; 2. Indirect or false echoes; 3. Side-lobe effects; 4. Multiple echoes; 5. Second-trace echoes; 6. Electronic interference; 7. Spoking; 8. Sea return; 9. Racons; and 10. SARTs.
3.4 Determine range and bearing *Radar Course*	Use of radar and ARPA to maintain safety of navigation	*Radar navigation* Ability to operate and to interpret and analyze information obtained from radar	This KUP is demonstrated if by successful completion of the Radar Observer course specified in 46 CFR 11.319(a)(4)(ii) within the previous 5 years or holds a valid Radar Observer (Unlimited) endorsement.		

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.5.A Set up and maintain an ARPA display *Note 2 ARPA*	Use of radar and ARPA to maintain safety of navigation	Principal types of ARPA, their display characteristics, performance standards and the dangers of over-reliance on ARPA	Using an ARPA or ARPA simulator that meets 33 CFR 164.38 and other applicable national and international performance standards,	the candidate sets up and maintains the ARPA display.	Within 3 minutes, the candidate: 1. Turns the power on; 2. Initializes the performance monitor; 3. Notes error messages; 4. Switches from standby to on; 5. Selects the appropriate scale; 6. Adjusts the gain control so that targets and sea return appear; 7. Adjusts the tune control (if the unit is not self-tuning); 8. Adjusts the brilliance control; 9. Adjusts the sea clutter and rain clutter control to suppress the rain and sea clutter without losing targets; 10. Selects display north-up stabilized relative motion; 11. Selects proper gyro course and speed input; and 12. Selects sea-stabilized mode.
3.6 Use of ARPA *ARPA Course*	Use of radar and ARPA to maintain safety of navigation	Ability to operate and to interpret and analyze information obtained from ARPA	This KUP is demonstrated by successful completion of the ARPA course specified in 46 CFR 11.319(a)(3)(viii).		

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
4.1 *ECDIS Course*	Use of ECDIS to maintain the safety of navigation	*Navigation using ECDIS* Knowledge of the capability and limitations of ECDIS	This KUP is demonstrated by successful completion of the approved or accepted ECDIS course specified in 46 CFR 11.319(a)(3)(x).		
4.2 *ECDIS Course*	Use of ECDIS to maintain the safety of navigation	*Navigation using ECDIS* Proficiency in operation, interpretation, and analysis of information from ECDIS	This KUP is demonstrated by successful completion of the approved or accepted ECDIS course specified in 46 CFR 11.319(a)(3)(x).		
5.1.A Passenger safety *Note 1* *Note 2*	Respond to emergencies	*Emergency procedures* Precautions for the protection and safety of passengers in emergency situations	On a vessel or in a navigation laboratory, when asked to describe protection of passengers in emergencies in specific scenarios presented by the assessor,	the candidate describes the precautions for the protection and safety of passengers in emergency situations.	The candidate's description is appropriate for the specified situation.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
5.2.A Action following collision or grounding *Note 1* *Note 2*	Respond to emergencies	*Emergency procedures* Initial action taken following a collision or a grounding; initial damage assessment and control	On a vessel or in a navigation laboratory, when to describe action to be taken following a collision or a grounding,	the candidate describes the initial action to be taken following a collision or a grounding.	The candidate's description is appropriate and includes initial damage assessment and control.
5.3.A Rescuing persons from the sea, assisting a ship in distress, emergencies in port *Note 2*	Respond to emergencies	*Emergency procedures* Appreciation of the procedures to be followed for rescuing persons from the sea, assisting a vessel in distress, responding to emergencies which arise in port	On a vessel or in a navigation laboratory, when asked to describe procedures for rescuing persons from the sea, assisting a ship in distress, responding to emergencies that arise in port,	the candidate describes the procedures to be followed for rescuing persons from the sea, assisting a vessel in distress, responding to emergencies that arise in port.	The candidate's description is appropriate and accurate.
6.1.A IAMSAR Manual *Note 1* *Note 2*	Respond to a distress signal at sea	*Search and rescue* Knowledge of the contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual	On board a vessel, or in a laboratory, when asked to describe the IAMSAR Manual,	the candidate describes the purpose, use, and contents of the IAMSAR Manual.	The candidate's description is appropriate and accurate.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
7.1 Standard Marine Communication Phrases *Course*	Use the IMO Standard Marine Communication Phrases and use English in written and oral form	*English language* Adequate knowledge of English language to use charts and nautical publications, understand meteorological information and messages concerning vessel's safety and operation, to communicate with other vessels, coast stations and VTS centers and to perform the duties with a multilingual crew, including ability to use and understand IMO Standard Marine Communication Phrases (SMCP)	This KUP is demonstrated by successful completion of the training in IMO Standard Marine Communication Phrases (SMCP) specified in 46 CFR 11.319(a)(4)(iii).		
8.1 Use the International Code of Signals *Course*	Transmit and receive information by visual signaling	*Visual signaling* Ability to use the International Code of Signals	This KUP is demonstrated by successful completion of the training in Visual Signaling specified in 46 CFR 11.319(a)(4)(vi).		

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
8.2 Receive information by Morse light *Course*	Transmit and receive information by visual signaling	*Visual signaling* Ability to use the International Code of Signals	This KUP is demonstrated by successful completion of the training in Visual Signaling specified in 46 CFR 11.319(a)(4)(vi).		
9.1.A Turning circles and stopping distances *Note 2*	Maneuver the ship	*Ship maneuvering and handling* Knowledge of the effects of deadweight, draught, trim, speed and under keel clearance on turning circles and stopping distances	On a vessel or in a laboratory, when asked to describe the effects of deadweight, draught, trim, speed, and under-keel clearance on turning circles and stopping distances,	the candidate describes the effects of deadweight, draft, trim, speed, and under-keel clearance on turning circles and stopping distances.	The candidate describes how changes in the following will affect the vessel's maneuvering characteristics: 1. Deadweight; 2. Draft; 3. Trim; 4. Speed; and 5. Under-keel clearance.
9.2.A Course change of more than 45° *Note 1*	Maneuver the ship	*Ship maneuvering and handling* Knowledge of the effects of wind and current on ship handling	On a vessel underway or on a simulator,	the candidate orders the vessel left or right more than 45° from the original heading.	The candidate: 1. Orders the turn left or right more than 45° from the original heading by applying a minimum of 10° and a maximum of 20° of rudder; 2. Reduces rudder as the vessel approaches the new course; and 3. Steadies on the new course without over-shooting the course by more than 10°.
9.2.B Emergency stop *Note 1*	Maneuver the ship	*Ship maneuvering and handling* Knowledge of the effects of wind and current on ship handling	On a vessel underway or on a simulator, proceeding at a speed of at least half ahead,	the candidate executes an emergency stop.	The candidate stops the vessel using maximum astern thrust and rudder cycling without deviating from the original course by more than 20° without exceeding the safe operating limits of the vessel's propulsion system.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
9.3.A Maneuver for a man overboard *Note 2*	Maneuver the ship	*Ship maneuvering and handling* Knowledge of maneuvers and procedures for the rescue of person overboard	On a vessel underway or on a simulator, upon receiving notification of a Man-Overboard (MOB),	the candidate immediately initiates either a Williamson Turn or Anderson Turn (as appropriate for conditions), returns the vessel to within sight of the MOB, and gives the command to launch the rescue boat.	The candidate: 1. Orders full rudder to the side of the MOB; 2. Sounds MOB signal if other vessels are in sight; 3. Simulates releasing the lighted buoy; 4. Marks the vessel's position on ARPA/GPS (if fitted); 5. Simulates a "Mayday" call on VHF notifying any vessels in vicinity of the MOB; 6. Completes the recovery turn; 7. States the rescue boat would be prepared for launch or scrambling nets rigged on the side of the vessel; and 8. States that when on the reciprocal of the original course, the vessel would be slowed or stopped within 0.1 nm of the MOB to begin the recovery/search.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
9.4.A Knowledge of shallow water effects *Note 2*	Maneuver the ship	*Ship maneuvering and handling* Knowledge of squat, shallow water and similar effects	On a vessel or in a laboratory, when asked to describe squat, shallow water, and similar effects on a vessel's maneuvering capabilities,	the candidate describes squat, shallow water, and similar effects on a vessel's maneuvering capabilities.	The candidate describes: 1. Squat; 2. The cause of squat; 3. The change in squat as the vessel: a. Encounters shallow water; b. Changes speed; and c. Encounters an asymmetrical bottom; 4. The signs of squat, including: a. Changing wave pattern around the vessel; b. Vibration; c. Decreased speed; d. Trim changes; e. Loss of steerage; and f. Change in maneuvering characteristics; 5. Hazards due to squat, including: a. Grounding; and b. Loss of control; 6. Methods to compute squat; and 7. How to control squat.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
9.5.A Knowledge of anchoring *Note 1* *Note 4*	Maneuver the ship	*Ship maneuvering and handling* Knowledge of proper procedures for anchoring and mooring	On a vessel, or in a laboratory, when asked to describe proper procedures for anchoring,	the candidate describes proper procedures for anchoring.	The candidate's description includes: 1. Planning: Determine the a. Depth of water; b. Type of bottom; c. Wind and current; d. Bottom obstructions; e. Room to swing; f. Place to anchor; g. Courses and maneuver to the anchor site; and h. Desired final heading; 2. Approach: Ensure that the vessel does not pass to windward or up current of any anchored vessel or hazard to navigation; 3. Placement: a. Anchor site approached slowly; b. The vessel's position is checked by natural landmarks and aids forming ranges ahead and abeam; c. The vessel is stopped when in position on the approximate desired final heading; and d. The anchor is correctly dropped for the depth of water; *Continued on next page*

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
9.5.A *Cont'd* Knowledge of anchoring *Note 1*					*Continued from previous page* 4. Laying out: a. The vessel is backed slowly; and b. Appropriate scope of chain for the depth of water and available swing room is paid out slowly; and; 5. Fetching up: a. The vessel is allowed to fetch up; and b. The vessel rides on a final heading that is within 40° of the desired final heading. **NOTE**: This KUP may also be demonstrated by completion of the approved Ship Handling course specified in 46 CFR 11.309(a)(4)(xi).
10.1.A Effect of cargo on seaworthiness and stability *Note 5*	Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes	*Cargo handling, stowage and securing* Knowledge of the effect of cargo, including heavy lifts, on the seaworthiness and stability of the ship	On a vessel or in a laboratory, when asked to describe the effect of cargo, including heavy lifts, on the seaworthiness and stability of the vessel,	the candidate describes the effect of cargo, including heavy lifts, on the seaworthiness and stability of the vessel.	The candidate describes: 1. Cargo operations carried out in accordance with the cargo plan or other documents; and 2. Established safety rules/regulations, equipment operating instructions, and shipboard stowage limitations. **NOTE**: This KUP may also be demonstrated by completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
10.2.A Safe handling, stowage and securing of cargoes *Note 1* *Note 5*	Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes	*Cargo handling, stowage and securing* Knowledge of safe handling, stowage and securing of cargoes, including dangerous, hazardous and harmful cargoes, and effect on the safety of life and the ship	On a vessel, or in a laboratory, when asked to describe safe handling, stowage and securing of cargoes, including dangerous, hazardous and harmful cargoes, and their effect on the safety of life and of the vessel,	the candidate describes safe handling, stowage and securing of cargoes.	The candidate's description: 1. Includes the handling of dangerous, hazardous, and harmful cargoes; and 2. Complies with international regulations and recognized standards and codes of safe practice. **NOTE**: This KUP may also be demonstrated by completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x).
10.3.A Effective communications during loading and unloading *Note 2*	Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes	*Cargo handling, stowage and securing* Ability to establish and maintain effective communications during loading and unloading	On a vessel, or in a laboratory when asked to describe how to establish and maintain effective communications during loading and unloading,	the candidate describes how to establish and maintain effective communications during loading and unloading.	The candidate's description includes that communications must be clear, understood and consistently successful.
11.1.A Inspection for damage and defects *Note 6*	Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	Knowledge and ability to explain where to look for damage and defects most commonly encountered	On a vessel, or in a laboratory, when asked to describe appropriate inspection procedures for cargo spaces and ballast tanks,	the candidate describes appropriate inspection procedures.	The candidate's description includes where to look for damage and defects most commonly encountered due to: 1. Loading and unloading operations; 2. Corrosion; and 3. Severe weather conditions. **NOTE**: This KUP may also be demonstrated by completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x).

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
11.2.A Inspection scheduling and frequency *Note 6*	Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	Ability to state which parts of the ship shall be inspected each time in order to cover all parts within a given period of time	On a vessel, or in a laboratory, when asked to describe procedures for planning and scheduling inspections of cargo spaces and ballast tanks,	the candidate describes appropriate inspection procedures.	The candidate's description includes which parts of the vessel are inspected each time in order to cover all parts within a given time period. **NOTE**: This KUP may also be demonstrated by completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x).
11.3.A Critical elements of vessel structure *Note 6*	Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	Identify those elements of the ship structure which are critical to the safety of the ship	On a vessel, or in a laboratory, when asked to identify elements of the vessel structure that are critical to the safety of the vessel,	the candidate identifies elements of the vessel structure that are critical to safety.	The candidate's description correctly identifies elements of the vessel structure that are critical to the safety of the vessel. **NOTE**: This KUP may also be demonstrated by completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x).
11.4.A Causes of corrosion in cargo spaces and ballast tanks *Note 2*	Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	State the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented	On a vessel, or in a laboratory, when asked to describe the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented,	the candidate describes (the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented.	The candidate's description includes the causes of and procedures for prevention of corrosion.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
11.5.A Inspection procedures	Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	Knowledge of procedures on how the inspections shall be carried out	On a vessel, or in a laboratory, when asked to describe inspection procedures,	the candidate describes inspection procedures.	The candidate correctly describes appropriate inspection procedures. **NOTE**: This KUP may also be demonstrated by completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x).
11.6.A Detection of defects and damages	Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	Ability to explain how to ensure reliable detection of defects and damages	On a vessel, or in a laboratory, when asked to describe procedures for reliable detection of damage and defects to cargo spaces and ballast tanks,	the candidate describes appropriate inspection procedures.	The candidate correctly describes appropriate inspection for reliable detection of defects and damages. **NOTE**: This KUP may also be demonstrated by completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x).
12.1.A Precautions to prevent pollution of the marine environment *Note 1* *Note 2*	Ensure compliance with pollution prevention requirements	*Prevention of pollution of the marine environment and anti-pollution procedures* Knowledge of the precautions to be taken to prevent pollution of the marine environment	On a vessel, or in a laboratory, when asked to describe pollution prevention procedures,	the candidate describes appropriate pollution prevention procedures.	The candidate's description includes: 1. Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements; and 2. Actions to ensure that a positive environmental reputation is maintained.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
12.2.A Anti-pollution procedures and associated equipment *Note 1* *Note 2*	Ensure compliance with pollution prevention requirements	*Prevention of pollution of the marine environment and anti-pollution procedures* Anti-pollution procedures and all associated equipment	On a vessel, or in a laboratory, when asked to identify and describe pollution prevention procedures and associated equipment,	the candidate describes appropriate pollution prevention procedures and equipment.	The candidate's description includes identification of appropriate equipment and its use associated with: 1. Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements; and 2. Actions to ensure that a positive environmental reputation is maintained.
12.3.A Importance of proactive measures *Note 2*	Ensure compliance with pollution prevention requirements	*Prevention of pollution of the marine environment and anti-pollution procedures* Importance of proactive measures to protect the marine environment	On a vessel, or in a laboratory, when asked to describe compliance with pollution prevention procedures;	the candidate describes appropriate pollution prevention procedures.	The candidate's description includes the importance of proactive measures to protect the marine environment.
13.1.A Stability, trim and stress tables and diagrams *Note 1* *Note 5*	Maintain seaworthiness of the ship	*Ship stability* Working knowledge and application of stability, trim and stress tables, diagrams and stress calculating equipment	On a vessel, or in a laboratory, and given stability, trim and stress tables, and diagrams, when asked to determine stability data for various conditions of loading,	the candidate determines stability data for the vessel.	The stability conditions comply with the IMO intact stability criteria under all conditions of loading. **NOTE**: This KUP may also be demonstrated by completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
13.2.A Partial loss of intact buoyancy *Note 1* *Note 5*	Maintain seaworthiness of the ship	*Ship stability* Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy	On a vessel, or in a laboratory, when asked to describe the actions to be taken for a partial loss of intact buoyancy,	the candidate describes actions to take for a partial loss of intact buoyancy.	The candidate describes appropriate actions to ensure and maintain the watertight integrity of the vessel that are in accordance with accepted practices. **NOTE**: This KUP may also be demonstrated by completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii).
13.3.A Watertight integrity *Note 1* *Note 5*	Maintain seaworthiness of the ship	*Ship stability* Understanding of the fundamentals of watertight integrity	On a vessel, or in a laboratory, when asked to describe principles of watertight integrity,	the candidate describes the fundamentals of watertight integrity.	The candidate describes appropriate actions to ensure and maintain the watertight integrity of the vessel that are in accordance with accepted practices ensuring correct use of watertight bulkheads, doors, and closures to maintain watertight integrity. **NOTE**: This KUP may also be demonstrated by completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii).
13.4.A Vessel construction *Note 1* *Note 5*	Maintain seaworthiness of the ship	*Ship construction* General knowledge of the principal structural members of a ship and the proper names for the various parts	On a vessel, or in a laboratory, when asked to describe the principal structural members of a vessel,	the candidate describes the principal structure members of a vessel and the proper names for the various parts.	The candidate correctly identifies and describes the vessel structural members. **NOTE**: This KUP may also be demonstrated by completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
14.1 *Course*	Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* Ability to organize fire drills	This KUP is demonstrated by successful completion of approved or accepted training in Basic and Advanced Firefighting within the previous five years, or by providing evidence of having maintained the standards of competence for Basic Training and Advanced Firefighting as specified in 46 CFR 11.302(b) and 11.303(b).		
14.2 *Course*	Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* Knowledge of classes and chemistry of fire	This KUP is demonstrated by successful completion of approved or accepted training in Basic and Advanced Firefighting within the previous five years, or by providing evidence of having maintained the standards of competence for Basic Training and Advanced Firefighting as specified in 46 CFR 11.302(b) and 11.303(b).		
14.3 *Course*	Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* Knowledge of fire-fighting systems	This KUP is demonstrated by successful completion of approved or accepted training in Basic and Advanced Firefighting within the previous five years, or by providing evidence of having maintained the standards of competence for Basic Training and Advanced Firefighting as specified in 46 CFR 11.302(b) and 11.303(b).		
14.4 *Course*	Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* Knowledge of action to be taken in the event of fire, including fires involving oil systems	This KUP is demonstrated by successful completion of approved or accepted training in Basic and Advanced Firefighting within the previous five years, or by providing evidence of having maintained the standards of competence for Basic Training and Advanced Firefighting as specified in 46 CFR 11.302(b) and 11.303(b).		

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
15.1 *Course*	Operate life-saving appliances	*Life-saving* Ability to organize abandon ship drills and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio life-saving appliances, satellite EPIRBs, SARTs, immersion suits and thermal protective aids	This KUP is demonstrated by successful completion of approved or accepted training for Proficiency in Survival Craft and Rescue Boats, other than Fast Rescue Boats or Proficiency in Survival Craft and Rescue Boats, other than Lifeboats and Fast Rescue Boats or by providing evidence of having maintained the standards of competence for PSC or PSC-Limited as specified in 46 CFR 12.613(b) or 12.615(b).		
16.1 *Course*	Apply medical first aid on board ship	*Medical aid* Practical application of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board a vessel	This KUP is demonstrated by successful completion of the approved or accepted Medical First Aid Provider or Medical Care Provider course specified in 46 CFR 11.319(a)(4)(i).		

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
17.1.A International conventions *Note 2*	Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions concerning safety of life at sea, security and protection of the marine environment	On a vessel, or in a laboratory, when asked to describe international conventions concerning safety at sea and protection of the marine environment,	the candidate describes requirements relating to safety of life at sea, security and protection of the marine environment.	The candidate describes appropriate international requirements.
18.1.A Duties and responsibilities of vessel personnel *Note 2*	Application of leadership and team working skills	Working knowledge of shipboard personnel management and training	On a vessel, or in a laboratory, when asked to describe the duties of vessel personnel,	the candidate describes the basic duties and responsibilities of vessel personnel.	The candidate describes the duties and responsibilities of each member of the following: 1. Master; 2. Deck department; 3. Engine department; 4. Steward's department; and 5. Other personnel.

Successful completion of these Assessment Guidelines will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative guidelines must be approved by the National Maritime Center before use.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
18.2.A Maritime conventions and national legislation *Note 2*	Application of leadership and team working skills	A knowledge of related international maritime conventions and recommendations, and national legislation	On a vessel, or in a laboratory, when asked to describe international maritime conventions and national regulations,	the candidate describes basic international maritime conventions and national regulations.	The candidate describes the following: 1. International Convention for the Safety of Life at Sea (SOLAS); 2. International Ship and Port Facility Security Code (ISPS); 3. International Safety Management Code (ISM); 4. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended (STCW); 5. MARPOL 73/78 and its Annexes; 6. Oil Pollution Act of 1990 (OPA 90); 7. United States laws and regulations on inspection and manning of vessels; 8. United States laws and regulations on shipment and discharge of seamen; 9. U.S. Coast Guard chemical testing requirements (46 CFR Part 16); 10. Department of Transportation Hazardous Materials training requirements; and 11. Onboard contracts.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
18.3.A Task and workload management *Note 2*	Application of leadership and team working skills	Ability to apply task and workload management	On a vessel or on a simulator, during an operation entering port and docking the vessel and acting as an OICNW,	the candidate performs the duties of an OICNW under the supervision of the Master or watch officer.	The duties performed include: 1. Planning and scheduling the order of events in anticipation of the operation; 2. Giving or checking helm orders Master's direction; 3. Operating signal devices (radio communications, flags, lights, , etc.) as directed by the Master; and 4. Assigning and calling out personnel so that equipment is safely rigged and/or unrigged.
18.4.A Resource management *Note 2*	Application of leadership and team working skills	Knowledge and ability to apply effective resource management	On a vessel, during a mooring, unmooring, or anchoring operation,	the candidate directs in the operation under supervision of the person in charge.	The candidate satisfactorily: 1. Reviews the plan with the Master; 2. Checks the assigned equipment to ensure that it is ready for use; 3. Briefs assigned crewmembers on the group's assignment, visual, verbal and/or other signals that will be used and any special procedures or events that may concern them; 4. Delegates tasks to each of the assigned crewmembers, briefing them about any special procedures or events that may concern them; 5. Establishes and maintains communications with bridge, team and shore personnel; 6. Shows situational awareness by noting to the supervisor items of importance such as the location of any tugs, potential hazards that each team member may encounter, equipment available; and 7. Manages the assigned crewmembers by walking around, motivating them to work safely and efficiently, and maintaining communications with all personnel involved while anticipating and mitigating any hazards.

Successful completion of these Assessment Guidelines will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative guidelines must be approved by the National Maritime Center before use.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
18.5.A Decision making techniques *Note 2*	Application of leadership and team working skills	Knowledge and ability to apply decision-making techniques: .1 Situation and risk assessment .2 Identify and consider generated options .3 Selecting course of action .4 Evaluation of outcome effectiveness	On a vessel, during a drill simulating a fire or emergency,	the candidate directs a fire or emergency team under the supervision of the person in charge.	The candidate: 1. Briefs the team on the situation, the approach to remedying the simulated emergency, and the procedures to be executed; 2. Delegates tasks to each of the assigned crewmembers, briefing them about any special procedures or events that may concern them; 3. Checks the assigned crewmembers to ensure that they are using personal protective equipment (PPE) correctly and appropriately; 4. Checks the assigned crewmembers to ensure that they have made available any equipment that will be needed to accomplish the assigned tasks, both team and individual; 5. Executes the generated plan to handle the emergency simulation; and 6. Participates in the post-simulation critique and presents the positive results of the simulation, the negative findings of the simulation, and makes recommendations to improve procedures, equipment availability, and personnel training.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
19.1 *Course*	Contribute to the safety of personnel and ship	Knowledge of personal survival techniques	This KUP is demonstrated by successful completion of approved or accepted Basic Training within the previous five years or by providing evidence of maintaining the standard of competence for Basic Training specified in 46 CFR 11.302(b).		
19.2 *Course*	Contribute to the safety of personnel and ship	Knowledge of fire prevention and ability to fight and extinguish fires	This KUP is demonstrated by successful completion of approved or accepted Basic Training within the previous five years or by providing evidence of maintaining the standard of competence for Basic Training specified in 46 CFR 11.302(b).		
19.3 *Course*	Contribute to the safety of personnel and ship	Knowledge of elementary first aid	This KUP is demonstrated by successful completion of approved or accepted Basic Training within the previous five years or by providing evidence of maintaining the standard of competence for Basic Training specified in 46 CFR 11.302(b).		
19.4 *Course*	Contribute to the safety of personnel and ship	Knowledge of personal safety and social responsibilities	This KUP is demonstrated by successful completion of approved or accepted Basic Training within the previous five years or by providing evidence of maintaining the standards of competence for Basic Training specified in 46 CFR 11.302(b).		

Record of Assessment

for

Officer in Charge of a Navigational Watch of Vessels of Less Than 500 GT Not Limited to Near-Coastal Waters

_____	_____	_____
Print Name of Candidate	*Candidate's Signature*	*Candidate's Mariner Reference Number*

RECORD OF ASSESSMENT

Officer in Charge of a Navigational Watch of Vessels of Less Than 500 GT

NOTE TO QUALIFIED ASSESSOR(S): In performing your function as a qualified assessor (QA), you may use your initials only to indicate you have personally witnessed the demonstration of skill or ability by the person being assessed. The Assessment Guidelines in Enclosure (2) will provide satisfactory evidence of meeting the standard of competence specified in Section A-II/1 of the STCW Code. The use of these Assessment Guidelines is not mandatory and an alternative means of having achieved the standards of competence in the STCW Code will be considered. In accordance with 46 CFR 11.301(a)(3), alternative Assessment Guidelines must be approved by the National Maritime Center before use.

Notes

The following notes are used in the "Task No." column of the table that follows:

Note 1 The assessment is not required for a mariner previously qualified to hold an STCW endorsement as OICNW of Vessels of Less Than 500 GT that is limited to near coastal waters and is not limited to domestic voyages.

Note 2 The assessment is the same as one for STCW endorsements as OICNW of Vessels of 500 GT or More. Mariners will not need to repeat the assessment when upgrading to that endorsement. When qualifying for an STCW endorsement as OICNW of Vessels of 500 GT or More, mariners may omit the similar assessment with the same Task No. described in NVIC 12-14 for OICNW of Vessels of 500 GT.

Note 3 Mariners may substitute completion of the approved Meteorology course specified in 46 CFR 11.309(a)(4)(xiii) for this task.

Note 4 Mariners may substitute completion of the approved Ship Handling course specified in 46 CFR 11.309(a)(4)(xi) for this task.

Note 5 Mariners may substitute completion of the approved Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii) for this task.

Note 6 Mariners may substitute completion of the approved Cargo Handling and Stowage course specified in 46 CFR 11.309(a)(4)(x) for this task.

Radar The assessment is not required for mariners serving exclusively on vessels not fitted with radar; a limitation will be added to the OICNW endorsement indicating that it is not valid on vessels equipped with radar.

ARPA The assessment is not required for mariners serving exclusively on vessels not fitted with an Automatic Radar Plotting Aid (ARPA); a limitation will be added to the OICNW endorsement indicating that it is not valid on vessels equipped with ARPA.

Print Name of Candidate *Candidate's Mariner Reference No.*

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Plan and conduct a passage and determine position	*Celestial Navigation* Ability to use celestial bodies to determine the ship's position	1.1A *Note 2*	Adjust a sextant		
		1.1B *Note 2*	Measure the altitude of the sun		
		1.1C *Note 2*	Measure the altitude of at least 3 stars		
		1.1D *Note 2*	Measure the altitude of the sun at meridian passage (LAN)		
		1.1E *Note 2*	Celestial running fix		
		1.1.F *Note 2*	Plot star fix		
	Terrestrial Navigation Ability to determine the ship's position by use of landmarks, aids to navigation, and dead reckoning	1.2.A *Notes 1,2*	Position fix by two bearings		
		1.2.B *Notes 1,2*	Plot estimated position		
		1.2.C *Notes 1,2*	Determine the course to steer		
	Thorough knowledge of and ability to use nautical charts, and publications	1.3.A *Notes 1,2*	Correction of charts and publications		
		1.3.B *Notes 1,2*	Chart selection		
		1.3.C *Notes 1,2*	Route planning		
	Electronic navigation Ability to determine the vessel's position by use of electronic navigational aids	1.4.A *Note 2 Radar*	Position fix by two ranges		
		1.4.B *Note 2 Radar*	Position fix by tangents to identified objects		
		1.4.C *Notes 1,2*	Position fix by GPS		
		1.4.D *Notes 1,2*	Use of GPS position save function		

Print Name of Candidate

Candidate's Mariner Reference No.

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Plan and conduct a passage and determine position	*Echo-sounders* Ability to operate the equipment and apply the information correctly	1.5.A *Notes 1,2*	Use of echo sounder		
	Compass – magnetic and gyro Knowledge of the principles of the magnetic and gyrocompass	1.6.A *Note 2*	Magnetic variation		
		1.6.B *Note 2*	Correct for true heading		
		1.6.C *Note 2*	Compass deviation		
		1.6.D *Notes 1,2*	Magnetic compass correction		
	Compass – magnetic and gyro Ability to determine errors of the magnetic and gyro-compasses and to allow for such errors	1.7.A *Note 2*	Determine gyro-compass error by bearing of range		
		1.7.D *Notes 1,2*	Determine course to steer by magnetic compass		
		1.7.E *Notes 1,2*	Position fix by magnetic compass bearings		
		1.7.F *Note 2*	Azimuth of the sun		
	Steering control system Knowledge of steering control systems, operational procedures and change-over from manual to automatic control and vice versa. Adjustment of controls for optimum performance	1.8.A *Notes 1,2*	Steering gear test		
		1.8.B *Notes 1.2*	Set weather controls		
	Meteorology Ability to use and interpret information obtained from shipborne meteorological instruments	1.9.A *Notes 1,3*	Read barometric pressure		
		1.9.B *Notes 1,3*	Determine true wind speed and direction		

Print Name of Candidate

Candidate's Mariner Reference No.

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Plan and conduct a passage and determine position	*Meteorology* Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	1.10.A *Notes 1,3*	Properties of a cold front		
		1.10.B *Notes 1,3*	Properties of a warm front		
		1.10.C *Notes 1,3*	Properties of an occluded front		
		1.10.D *Notes 1,3*	Properties of a low pressure area		
		1.10.E *Notes 1,3*	Properties of a high pressure area		
		1.10.F *Notes 1,3*	Properties and expected locations of weather systems		
		1.10.G *Notes 1,3*	Determine expected weather conditions		
Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	2.1.A *Notes 1,2*	Identify light configurations		
		2.1.B *Notes 1,2*	Identify day shapes		
		2.1.C *Notes 1,2*	Identify sound signals		
		2.1.D *Notes 1,2*	Determine risk of collision		
		2.1.E *Notes 1,2*	Maneuver to avoid risk of collision – crossing		
		2.1.F *Notes 1,2*	Maneuver to avoid risk of collision – meeting		
		2.1.G *Notes 1,2*	Maneuver to avoid risk of collision – overtaking		

Print Name of Candidate

Candidate's Mariner Reference No.

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the principles to be observed in keeping a navigational watch	2.2.A *Notes 1,2*	Watch relief		
		2.2.B *Notes 1,2*	Keep a safe navigation watch		
		2.2.C *Notes 1,2*	Notify Master when appropriate		
		2.2.D *Notes 1,2*	Keep a safe anchor watch		
		2.2.E *Notes 1,2*	Turn over a watch		
	Watchkeeping The use of routing in accordance with the General Provisions on Ships' Routing	2.3.A *Note 2*	Voyage Planning – Appraisal		
		2.3.B *Note 2*	Voyage Planning – Planning		
		2.3.C *Note 2*	Execute a voyage plan		
	Watchkeeping The use of information from navigational equipment for maintaining a safe navigational watch	2.4.A *Note 2*	Situational awareness		
	Watchkeeping Knowledge of blind pilotage techniques	2.5.A *Notes 1,2*	Navigate in restricted visibility		
	Watchkeeping The use of reporting in accordance with the General Principles for Ship Reporting Systems and with VTS procedures	2.6.A *Notes 1,2*	Vessel Traffic Systems		

Print Name of Candidate *Candidate's Mariner Reference No.*

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Maintain a safe navigational watch	*Bridge resource management* Knowledge of bridge resource management principles	2.7.A *Note 2*	Recognition of watch condition		
		2.7.B *Note 2* *Radar*	BRM Condition III Collision Avoidance		
		2.7.C *Note 2*	BRM Condition III Navigation		
		2.7.D *Note 2*	BRM Condition II or III – error trapping		
		2.7.E *Note 2*	BRM Condition II or III prioritization		
		2.7.F *Note 2*	BRM Condition II Navigation and collision avoidance		
		2.7.G *Note 2*	BRM Condition III establish a bridge team		
Use of radar and ARPA to maintain safety of navigation	*Radar navigation* Ability to operate and to interpret and analyze information obtained from radar, including setting up and maintaining displays	3.2.A *Note 2* *Radar*	Set up and maintain radar display		
		3.2.B *Note 2* *Radar*	Switch display modes		
	Radar navigation Ability to operate and to interpret and analyze information obtained from radar, including detection of misrepresentation of information, false echoes, sea return, etc., racons and SART	3.3.A *Note 2* *Radar*	Identify false echoes, sea return, racon and SART		
	Principal types of ARPA, their display characteristics, performance standards and the dangers of over-reliance on ARPA	3.5.A *Note 2* *ARPA*	Set up and maintain an ARPA display		

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STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Respond to emergencies	Precautions for the protection and safety of passengers in emergency situations	5.1.A *Notes 1,2*	Passenger safety		
	Initial action to be taken following a collision or a grounding; initial damage assessment and control	5.2.A *Notes 1,2*	Initial damage assessment and control		
	Appreciation of the procedures to be followed for rescuing persons from the sea, assisting a vessel in distress, responding to emergencies which arise in port	5.3.A *Note 2*	Rescuing persons from the sea, assisting a ship in distress, emergencies in port		
Respond to a distress signal at sea	Knowledge of the contents of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual	6.1.A *Notes 1,2*	IAMSAR Manual		
Maneuver the ship	Knowledge of the effects of deadweight, draught, trim, speed and under keel clearance on turning circles and stopping distances	9.1.A *Note 2*	Turning circles and stopping distances		
	Knowledge of the effects of wind and current on ship handling	9.2.A *Note 1*	Course change of more than 45°		
		9.2.B *Note 1*	Emergency stop		
	Knowledge of maneuvers and procedures for the rescue of person overboard	9.3.A *Note 2*	Maneuver for a man overboard		
	Knowledge of squat, shallow water and similar effects	9.4.A *Note 2*	Knowledge of shallow water effects		
	Knowledge of proper procedures for anchoring and mooring	9.5.A *Notes 1,4*	Knowledge of anchoring		
Monitor the loading, stowage, securing, care during the voyage and the unloading of cargoes	Knowledge of safe handling, stowage and securing of cargoes, including dangerous, hazardous and harmful cargoes, and effect on the safety of life and the ship	10.1.A *Note 5*	Effect of cargo on seaworthiness and stability		
		10.2.A *Notes 1,5*	Safe handling, stowage and securing of cargoes		
	Ability to establish and maintain effective communications during loading and unloading	10.3.A *Note 2*	Effective communications during loading and unloading		

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STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Inspect and report defects and damage to cargo spaces, hatch covers and ballast tanks	Knowledge and ability to explain where to look for damage and defects	11.1.A *Note 6*	Inspection for damage and defects		
	Ability to state which parts of the ship shall be inspected each time in order to cover all parts within a given period of time	11.2.A *Note 6*	Inspection scheduling and frequency		
	Identify those elements of the ship structure which are critical to the safety of the ship	11.3.A *Note 6*	Critical elements of vessel structure		
	State the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented	11.4.A *Note 2*	Causes of corrosion in cargo spaces and ballast tanks		
	Knowledge of procedures on how the inspections shall be carried out	11.5.A *Note 6*	Inspection procedures		
	Ability to explain how to ensure reliable detection of defects and damages	11.6.A *Note 6*	Detection of defects and damages		
Ensure compliance with pollution prevention requirements	Knowledge of the precautions to be taken to prevent pollution of the marine environment	12.1.A *Notes 1,2*	Precautions to prevent pollution of the marine environment		
	Anti-pollution procedures and all associated equipment	12.2.A *Notes 1,2*	Anti-pollution procedures and associated equipment		
	Importance of proactive measures to protect the marine environment	12.3.A *Note 2*	Importance of proactive measures		
Maintain seaworthiness of the ship	Working knowledge and application of stability, trim and stress tables, diagrams and stress calculating equipment	13.1.A *Notes 1,5*	Stability, trim and stress tables and diagrams		
	Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy	13.2.A *Notes 1,5*	Partial loss of intact buoyancy		
	Understanding of the fundamentals of watertight integrity	13.3.A *Notes 1,5*	Watertight integrity		
	General knowledge of the principal structural members of a ship and the proper names for the various parts	13.4.A *Notes 1,5*	Vessel construction		

Print Name of Candidate *Candidate's Mariner Reference No.*

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions concerning safety of life at sea, security and protection of the marine environment	17.1.A *Note 2*	International conventions		
Application of leadership and team working skills	Working knowledge of shipboard personnel management and training	18.1.A *Note 2*	Duties and responsibilities of vessel personnel		
	Knowledge of related international maritime conventions and recommendations, and national legislation	18.2.A *Note 2*	Maritime conventions and national legislation		
	Ability to apply task and workload management	18.3.A *Note 2*	Task and workload management		
	Knowledge and ability to apply effective resource management	18.4.A *Note 2*	Resource management		
	Knowledge and ability to apply decision-making techniques	18.5.A *Note 2*	Decision making techniques		

Print Name of Candidate *Candidate's Mariner Reference No.*

ASSESSOR AND VESSEL INFORMATION

Qualified Assessors (QAs) witnessing the successful demonstrations noted in this record should provide the information below relative to their service with the candidate. Prospective QAs should have a minimum of at least 1 year of experience as OICNW on vessels of at least 100 GRT. For assessments performed on a military vessel, the assessor should be authorized to conduct similar assessments for the U.S. Navy or U.S. Coast Guard Personnel Qualification Standard (PQS) for underway officer of the deck (OOD). After December 31, 2019, QAs must be approved by the National Maritime Center (46 CFR 10.107). Qualified military personnel authorized to conduct similar assessments for the U.S. Army, U.S. Navy, or U.S. Coast Guard PQS for OOD will not need to be approved as QAs and may continue to sign assessments on military vessels after December 31, 2019.

Vessel Name	Gross Tonnage	Assessor Name	Assessor Signature	Sample Initials of Assessor	Assessor's Mariner Reference No. or Assessor ID No.	Assessor's Shipboard Position
M/V Sandia	345 GT	Ignatius J. Reilly	*Ignatius J. Reilly*	*IJR*	567890	Master

Print Name of Candidate

Candidate's Mariner Reference No.