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

COMDTCHANGENOTE 16721 NVIC 01-17 October 18, 2018

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 01-17, CH 1

Subj: CH-1 TO GUIDELINES ON QUALIFICATION FOR NATIONAL AND STCW ENDORSEMENTS FOR SERVICE AS MATE ON OFFSHORE SUPPLY VESSELS, NVIC 01-17, COMDTPUB 16721

- Ref: (a) Guidelines on Qualification for National and STCW Endorsements for Service as Mate on Offshore Supply Vessels, NVIC 01-17, COMDTPUB 16721
- 1. <u>PURPOSE</u>. This Commandant Change Notice publishes CH-1 to reference (a).
- 2. <u>ACTION</u>. The Coast Guard will use reference (a) and 46 CFR Part 11 to establish whether mariners are qualified to hold national officer and STCW endorsements authorizing service as Mate on Offshore Supply Vessels (OSVs). Officers in Charge, Marine Inspection (OCMIs) should also bring this notice to the attention of the maritime industry within their zones of responsibility.
- 3. <u>DIRECTIVES AFFECTED</u>. With the release of this Commandant Change Notice, reference (a) is updated.
- 4. <u>DISCUSSION</u>.

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- a. Reference (a) included grandfathering provisions that would expire on January 1, 2018. As that date has passed, this CH-1 removes those now-expired provisions.
- b. After publication of Reference (a), the Coast Guard extended the date for acceptance of assessments of mariner competence that are not signed by a Coast Guard approved Qualified Assessor. This CH-1 is revised to reflect this extension.
- 5. <u>DISCLAIMER</u>. 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.

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- 6. <u>MAJOR CHANGES</u>. This Commandant Change Notice changes the guidance found in reference (a) concerning endorsements as Mate and Officer in Charge of a Navigational Watch (OICNW) that are limited to service on OSVs, as follows:
 - a. Enclosure (1) is revised to add an explanation of the requirement in 46 CFR 11.201(a)(1) that mariners must hold an appropriate national endorsement to qualify for an STCW endorsement.
 - b. Enclosure (1) is revised to remove grandfathering provisions for an STCW endorsement that expired on January 1, 2018.
 - c. Enclosures (2), and (3) have been revised to reflect previously published policy extending the date for acceptance of assessments that were not signed by a Coast Guard approved Qualified Assessor, and to add additional information concerning assessments that are performed on military vessels.

7. 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 CE #A3 from further environmental analysis, in accordance with Section 2.B and Appendix A, DHS Instruction Manual 023-01-001-01, Revision 01, Implementation of the National Environmental Policy Act (NEPA). Because this NVIC implements, without substantive change, the applicable Commandant Instruction or other federal agency regulations, procedures, manuals, and other guidance documents, categorical exclusion #A3 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.
- 8. <u>DISTRIBUTION</u>. No paper distribution will be made of this Commandant Change Notice. An electronic version will be located at <u>https://www.dco.uscg.mil/Our-Organization/NVIC/</u>.
- 9. <u>PROCEDURE</u>. Remove and insert the following pages of Reference (a):

Remove	Insert
Enclosure (1), Page 2	Enclosure (1), Page 2 CH-1
Enclosure (1), Pages 4 and 5	Enclosure (1), Page 4 CH-1
Enclosure (2), Page 1	Enclosure (2), Page 1 CH-1
Enclosure (3), Page 10	Enclosure (3), Page 10 CH-1

 <u>RECORDS MANAGEMENT CONSIDERATIONS</u>. 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.

11. FORMS/REPORTS. None.

 <u>REQUEST FOR CHANGES</u>. All requests for changes or questions regarding implementation of Reference (a) and this Commandant Change Notice should be directed to the Mariner Credentialing Program Policy Division (CG-MMC-2), at (202) 372-2357 or <u>MMCPolicy@uscg.mil</u>. To obtain approval for a course or training program, contact the NMC at (888) 427-5662 or <u>IAskNMC@uscg.mil</u>.

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

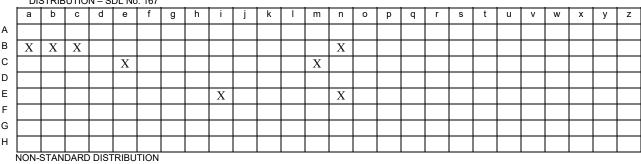
U.S. Department of Homeland Security United States Coast Guard

Commandant United States Coast Guard 2703 Martin Luther King Jr. Ave. SE Stop 7509 Washington, DC 20593-7509 Staff Symbol: CG-MMC-2 Phone: (202) 372-2357 Fax: (202) 372-1246 E-Mail: <u>MMCPolicy@uscg.mil</u>

COMDTPUB P16721 NVIC 01-17 February 16, 2017

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 01-17

- Subj: GUIDELINES ON QUALIFICATION FOR NATIONAL AND STCW ENDORSEMENTS FOR SERVICE AS MATE ON OFFSHORE SUPPLY VESSELS
- 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. <u>PURPOSE</u>. This Navigation and Vessel Inspection Circular (NVIC) provides guidance on qualification for and revalidation of national officer endorsements as Mate and STCW endorsements as Officer in Charge of a Navigational Watch of Vessels of 500 GT or More (OICNW) for service on offshore supply vessels (OSVs).
- 2. <u>ACTION</u>. The Coast Guard will use this NVIC and 46 CFR Part 11 to establish whether mariners are qualified to hold national officer and STCW endorsements authorizing service as Mate and/or OICNW on OSVs. Officers in Charge, Marine Inspection (OCMIs) should bring this NVIC to the attention of the maritime industry within their zones of responsibility.
- 3. <u>DIRECTIVES AFFECTED</u>. National Maritime Center (NMC) Policy Letter 7-00 is cancelled.
- 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
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provisions of the Convention under the authority of the United States Code, Titles 33 and 46. The Coast Guard published a final rule in the Federal Register on December 24, 2013 (78 FR 77796) that implements the STCW Convention and STCW Code, including the 2010 amendments. This rule also made changes to qualification requirements for national endorsements, including those for service on OSVs. This rule became effective on March 24, 2014. The Coast Guard is publishing this NVIC to provide guidance on complying with the new regulations and is cancelling previous policy. Accordingly, this NVIC cancels NMC Policy Letter 7-00.

- c. The Coast Guard recognizes the operational requirements of offshore supply vessels and that some operations and requirements applicable to other classes of vessels may not apply to OSVs. Using the authority described in 46 CFR 11.201(l), 11.301(f), 11.309(d) and (e), and 11.497(c) the Coast Guard has modified some of the requirements for merchant mariner credentials that will be limited to service on OSVs,
- d. The Coast Guard recognizes that implementation of this NVIC prior to January 1, 2017 may be problematic for mariners and industry. Therefore, we are extending the period during which mariners may qualify for STCW endorsements as OICNW limited to service on OSVs under the prior regulations. Mariners may continue to qualify under regulations and policies in place before March 24, 2014, until January 1, 2018, for STCW endorsements restricted to service on OSVs. Mariners may continue to qualify for national endorsements as Mate (OSV) under previous regulations and policies until March 24, 2019. Mariners may elect to qualify under the new regulations and policies before that time. Additional guidance is provided in Enclosure (1). This extension does not apply to any requirements for the renewal of an existing endorsement.
- 5. <u>DISCLAIMER</u>. 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. <u>DISTRIBUTION</u>. No paper distribution will be made of this Change Notice. An electronic version will be located at <u>http://www.uscg.mil/hq/cg5/nvic</u>.
- 8. <u>RECORDS MANAGEMENT CONSIDERATIONS</u>. 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.
- <u>REQUEST FOR CHANGES</u>. All requests for changes or questions regarding the implementation of this NVIC should be directed to the Mariner Credentialing Program Policy Division (CG-MMC-2), at (202) 372-2357 or <u>MMCPolicy@uscg.mil</u>. To obtain approval for an OSV training and assessment program, please see NVIC 03-14 and contact the NMC at <u>NMCCourses@uscg.mil</u> or (888) 427-5662

Date: 2017.02.16

P. F. THOMAS Rear Admiral, U. S. Coast Guard Assistant Commandant for Prevention Policy

- Encl: (1) Qualification Requirements for National and STCW Endorsements for Service as Mate and Officer in Charge of a Navigational Watch on Offshore Supply Vessels
 - (2) Assessment Guidelines for Officer in Charge of a Navigational Watch on Vessels of 500 GT or More Limited to Service on Offshore Supply Vessels
 - (3) Record of Assessment for Officer in Charge of a Navigational Watch on Vessels of 500 GT or More Limited to Service on Offshore Supply Vessels

QUALIFICATION REQUIREMENTS FOR NATIONAL AND STCW ENDORSEMENTS FOR SERVICE AS MATE AND OFFICER IN CHARGE OF A NAVIGATIONAL WATCH ON OFFSHORE SUPPLY VESSELS

- 1. <u>GENERAL</u>. This enclosure provides guidance to qualify for national and STCW endorsements for service as Mate and Officer in Charge of a Navigational Watch (OICNW) on offshore supply vessels (OSVs).
- 2. <u>NATIONAL ENDORSEMENT</u>. Mariners may qualify for a national endorsement as Mate (OSV) of Offshore Supply Vessels as follows:
 - a. <u>Sea service</u>. As is specified in 46 CFR 11.497(a), to qualify for a national endorsement as Mate (OSV), a mariner must have either:
 - At least 24 months of total service in the deck department of ocean, near coastal, and/or Great Lakes vessels. Service on inland waters may substitute for up to 50 percent of the required service. At least one-half of the required experience must be served on vessels of at least 100 GRT; or
 - 2) One year of total service as part of an approved or accepted Mate (OSV) training program.

When evaluating sea service on vessels that are measured under both GRT and GT, the GT may be used for all international voyages, and for domestic voyages when the vessel is manned in accordance with the GT.

- b. <u>Training</u>. To qualify for a national officer endorsement of Mate (OSV), mariners must provide evidence of successful completion of the following training:
 - 1) First Aid and CPR (46 CFR 11.201(i)). If this training was previously completed for another endorsement it need not be re-taken. Holding an endorsement that required this training will be satisfactory evidence that the training was completed; and
 - 2) Basic and Advanced Firefighting (46 CFR 11.201(h)(2)(v)) This training must have been completed within the past 5 years, or if it 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 11.303(b).
- c. <u>Scope of endorsement</u>.
 - National officer endorsements as Mate (OSV) will be issued without tonnage limitations. Mariners holding this endorsement may serve on OSVs of any tonnage subject to any route limitations on the endorsement. As explained in paragraph 4.a of this enclosure, mariners who hold an endorsement issued under previous regulations that contained a tonnage limitation will have the limitation removed on their next credential transaction.

Enclosure (1) to NVIC 01-17

- 2) Endorsements as Mate (OSV) may be issued for either near coastal or oceans service. The service requirements are the same for both near coastal and oceans endorsements. The route on an endorsement will be based on the professional examination the mariner passed to qualify for the endorsement. When applying or an endorsement, mariners should indicate whether they are seeking a near coastal or an oceans endorsement.
- 3) Mariners may increase the scope of a national officer endorsement that is limited to near coastal waters to oceans routes by completing a limited professional examination or a course approved for this purpose. The scope of the limited examination is described in the Deck and Engineering Guide for the Administration of Merchant Marine Examinations. This guide is available at the National Maritime Center web site: http://www.uscg.mil/nmc/. No additional service or training is required to increase the scope of the national officer endorsement from near coastal to oceans service.
- 3. <u>STCW ENDORSEMENT</u>. An applicant for an STCW endorsement must hold an appropriate national endorsement (46 CFR 11.201(a)). To be eligible for an STCW endorsement as Officer in Charge of a Navigational Watch of Vessels of 500 GT or More (OICNW) that will be limited to service on OSVs, mariners must hold or qualify for any national endorsement authorizing service as mate on an offshore supply vessel of 200 GRT or more.

As is specified in 46 CFR 11.301(f) and 11.309(d), the Coast Guard may exempt an applicant from meeting any individual knowledge, understanding, and proficiency required in Section A–II/1 of the STCW Code. Under this authority, mariners may qualify for an STCW endorsement as OICNW that will be limited to service on OSVs as follows:

- a. <u>Service</u>. Providing evidence of meeting the service requirements in 46 CFR 11.309(a)(1) as follows:
 - At least 36 months of seagoing 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 (18 months) of the total required service; or
 - 2) At least 12 months of seagoing service as part of an approved training program, which includes onboard training that meets the requirements of Section A–II/1 of the STCW Code.
- b. <u>Bridge Watchkeeping Duties</u>. Providing evidence of meeting the requirement in 46 CFR 11.309(a)(2) for having performed, during the required seagoing service, 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;
- c. <u>Standard of Competence</u>. Meeting the standard of competence in Section A-II/1 of the STCW Code (incorporated by reference, see 46 CFR 11.102) as applicable to OSVs of 500 GT or more (46 CFR 11.309(a)(3)). The assessment guidelines in Enclosure (2) may be used for this purpose;
- d. <u>Training</u>. Completion of approved or accepted training in 46 CFR 11.309(a)(4) for:
 - 1) Medical First Aid Provider;

- 2) Radar Observer;
- 3) Basic and Advanced Firefighting;
- 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);
- 5) Bridge Resource Management;
- 6) Terrestrial and Celestial Navigation, and Electronic Navigation Systems (Celestial Navigation is not required for endorsements limited to near coastal routes);
- 7) Watchkeeping, including International Regulations for Preventing Collisions at Sea (COLREGS) and IMO Standard Marine Communication Phrases (SMCP);
- 8) Stability and Ship Construction (this training may be tailored to be specific to OSVs and need not include training that is inapplicable to OSVs);
- 9) Automatic Radar Plotting Aids (ARPA), to be valid on a vessel with this equipment;
- 10) Global Maritime Distress and Safety System (GMDSS), to be valid on a vessel with this equipment; and
- 11) Electronic Chart Display and Information Systems (ECDIS), to be valid on a vessel with this equipment on or after January 1, 2017.
- e. To remove the limitation to OSVs, mariners must meet all requirements for an OICNW endorsement without limitation to OSVs in 46 CFR 11.309 that were not met to qualify for the endorsement limited to OSVs. These requirements can be found in NVIC 12-14.
- f. The scope of a mariner's STCW OICNW endorsement (near coastal or oceans) will be determined by the mariner's national officer endorsement and the assessments completed to qualify for the OICNW endorsement. Mariners may omit certain assessments to qualify for an endorsement that will be limited to near coastal service. Enclosure (2) notes which assessments may be omitted. To qualify for an STCW endorsement valid for oceans, mariners must hold or qualify for a national officer endorsement authorizing the mariner to serve as mate on a vessel over 200 GRT on an oceans voyage, and complete all assessments for an oceans endorsement. Enclosure (2) includes all assessments the mariner must complete in order to qualify for an STCW endorsement for OICNW limited to service on OSVs for oceans, and specifies the assessments that do not need to be completed for a near coastal endorsement.
- g. To qualify for an STCW endorsement as OICNW mariners must provide evidence of meeting the standard of competence for Basic Training (46 CFR 10.302).

4. <u>GRANDFATHERING</u>.

- a. Mariners who hold national endorsements as Mate (OSV) and STCW endorsements for OICNW limited to OSVs of not more than 500 GRT/3,000 GT or not more than 500 GRT/6,000 GT based on the statutory limits on OSVs before October 15, 2010, will have the tonnage limitations on their endorsements for Mate (OSV) and for OICNW limited to service on OSVs removed on their next credential transaction (46 CFR 11.491). The limitation on the STCW endorsement restricting it to service on OSVs will remain, unless the mariner meets all requirements for an OICNW endorsement that is not limited to service on OSVs.
- b. Mariners who hold STCW endorsements as OICNW limited to near coastal domestic voyages will have the limitation to domestic voyages removed on their next credential transaction. The limitation to near coastal waters will remain, unless the mariner meets all requirements to increase the scope of the endorsement from near coastal waters to oceans. The limitation to service on OSVs will not be removed, unless the mariner meets the requirements for an endorsement that is not limited to service on OSVs.
- c. Mariners may continue to qualify under previous regulations and policy for a national officer endorsement as Mate (OSV) until March 24, 2019, by holding or qualifying for a national endorsement as Mate Less Than 500 GRT Near Coastal or Oceans based on service and/or training that began before March 24, 2014. It is not necessary to have held an endorsement as Mate Not More Than 500 GRT before March 24, 2014, it is only necessary to have begun the service or training for that endorsement before that date. No further service, examination, or training is required.

5. <u>RENEWAL OF ENDORSEMENTS</u>.

- a. To renew a national officer endorsement, mariners must meet the applicable requirements in 46 CFR 10.227.
- b. To renew an STCW endorsement as OICNW, 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. This may be done by successfully completing assessment numbers 18.1.A through 18.5.A in Enclosure (2);
 - 2) Completion of approved or accepted training for ECDIS, to continue to be valid on a vessel with this equipment;
 - 3) Maintaining the standard of competence in standard of competence for Basic Training (46 CFR 11.302(b)) and Advanced Firefighting (46 CFR 11.3031(b)); and
 - 4) Seafarers serving as Lifeboatman must also provide evidence of 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.

Assessment Guidelines for Officer in Charge of a Navigational Watch on Vessels of 500 GT or More Limited to Service on Offshore Supply Vessels

As specified in 46 CFR 11.309(a)(3), every candidate for an endorsement as Officer in Charge of a Navigational Watch of Vessels of 500 GT or More (OICNW), including an endorsement that is limited to service on offshore supply vessels (OSVs), must provide evidence of having achieved the required standard of competence specified in Table A-II/1 of the STCW Code. 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 the assessment 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 until December 31, 2019, provided that the assessor meets the professional requirements in 46 CFR 10.405(a)(3) to assess competence for the specific endorsement. 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 200 GRT and/or 500 GT. 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 involving the carriage of cargo should not be performed on a vessel that does not carry cargo and/or by an assessor who lacks experience on cargo-carrying vessels. After December 31, 2019, QAs must be approved by the Cart 10.405). Qualified military personnel need not be approved QAs and may continue to sign assessments on military vessels after December 31, 2019.

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Enclosure (2) to NVIC 01-17
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Notes

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

- *Note 1* Not required for an endorsement that will be limited to near coastal waters.
- *Note 2* This assessment is the same or equivalent to one for an endorsement that is not restricted to OSVs, and need not be repeated to remove the limitation to OSVs. In addition, completion of the identically numbered assessment from Navigation and Vessel Inspection Circular (NVIC) 12-14 will be accepted in lieu of this assessment.
- *OSV* The assessment is specific to OSVs, and another assessment of the KUP will be needed to remove the limitation to OSVs. The identically numbered assessment(s) in NVIC 12-14 may be used for an endorsement that will not be limited to OSVs.
- ARPA 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* 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 after December 31, 2016.
- *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 for endorsements that are not limited to service on OSVs.

Assessment Guidelines for Officer in Charge of a Navigational Watch on Vessels of 500 GT or More Limited to Service on Offshore Supply Vessels

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.1.A Adjust a sextant Note 1 Note 2	Plan and conduct a passage and determine position	<i>Celestial navigation</i> 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, parallelism error, and collimation error,	the candidate detects and corrects adjustable sextant errors in accordance with industry standards.	 The candidate removes the adjustable sextant errors in the following order: a. Perpendicularity; b. Side error; c. Parallelism; and d. Collimation error. 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 1 Note 2	Plan and conduct a passage and determine position	<i>Celestial navigation</i> 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: Altitude is within 0.5 minutes of arc, after correction for index error, compared with the assessor's solution; and Time is within 2.0 seconds of the assessor's solution.
1.1.C Measure the altitude of at least 3 stars <i>Note 1</i> <i>Note 2</i>	Plan and conduct a passage and determine position	<i>Celestial navigation</i> 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: Altitude is within 2.0 minutes of arc, after correction for index error, compared with the assessor's solution; and Time is within 2.0 seconds of the assessor's solution.

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) <i>Note 1</i> <i>Note 2</i>	Plan and conduct a passage and determine position	<i>Celestial navigation</i> 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 <i>Note 1</i> <i>Note 2</i>	Plan and conduct a passage and determine position	<i>Celestial navigation</i> 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 three observations of the sun, and a standard plotting sheet appropriate for the DR position,	the candidate advances all three lines of position to a common time. <i>Electronic</i> <i>nautical almanac</i> <i>and celestial</i> <i>navigation</i> <i>calculation</i> <i>software may be</i> <i>used.</i>	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 1 Note 2	Plan and conduct a passage and determine position	<i>Celestial navigation</i> 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 three observations of the stars and a standard plotting sheet appropriate for the DR position,	the candidate plots the three lines of position and advances them to a common time. <i>Electronic</i> <i>nautical almanac</i> <i>and celestial</i> <i>navigation</i> <i>calculation</i> <i>software may be</i> <i>used.</i>	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 <i>Note 2</i>	Plan and conduct a passage and determine position	<i>Terrestrial and</i> <i>coastal navigation</i> Ability to determine the vessel's position by use of: .1 Landmarks .2 Aids to navigation, including lighthouses, beacons and buoys .3 Dead reckoning, taking into account winds, tides, currents and estimated speed	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 no more than 1:150,000,	the candidate determines the bearings of at least two charted objects and plots them.	 The candidate's: Position is within 0.10 nm of the assessor's solution; Crossing angles of bearing is not less than 30° nor more than 160° between bearings; Bearings of objects abeam or close to the beam are observed first; and 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 DR position <i>Note 2</i>	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, including lighthouses, beacons and buoys .3 Dead reckoning, taking into account winds, tides, currents and estimated speed	On a vessel underway, or on a simulator, using a standard plotting sheet or chart, and given the vessels speed made good and course made good for the past 4 hours,	the candidate plots the vessel's DR 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 <i>Note 2</i>	Plan and conduct a passage and determine position	<i>Terrestrial and</i> <i>coastal navigation</i> Ability to determine the vessel's position by use of: .1 Landmarks .2 Aids to navigation, including lighthouses, beacons and buoys .3 Dead reckoning, taking into account winds, tides, currents and estimated speed	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 two 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 <i>Note 2</i>	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 five chart corrections and three publication corrections.	 The candidate: Identifies charts and publications needing correction; Correctly makes corrections to the affected charts and publications; Records all chart corrections on the chart and in the chart-correction record or on the chart-correction spreadsheet; and 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 <i>Note 2</i>	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 1,000 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: Correctly identifies and records the names and numbers of the charts; Selects the charts with the largest scales appropriate for the area being transited; and 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 <i>Note 2</i>	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 three waypoints consisting of a position of departure, a position of arrival, and one other way-point, with a total distance of more than 1,000 nm,	the candidate determines the appropriate courses and distances between waypoints, and plots the intended courses on the charts selected.	 The candidate: Correctly calculates courses and distances between waypoints; Ensures that the route is the most direct; and 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 <i>Note 2</i>	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 that meets applicable national and international performance standards, with land and navigational aids displayed, and given a chart with a scale of no more than 1:150,000,	the candidate determines two 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 <i>Note 2</i>	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 that meets applicable national and international performance standards, with land and navigational aids displayed, and given a chart with a scale of no more than 1:150,000,	the candidate determines two or more tangents measured from identified-charted objects or points of land and plots them.	The candidate's position is within 0.1 nm of the assessor's position.
1.4.C Position fix by GPS <i>Note 2</i>	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 that meets IMO performance 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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.4.D Use of GPS position save function <i>Note 2</i>	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 performance 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."
1.5.A Use of echo sounder <i>Note 2</i>	Plan and conduct a passage and determine position	<i>Echo-sounders</i> Ability to operate the equipment and apply the information correctly	On a vessel underway, using an echo sounder that meets IMO performance standards or a part-task trainer that realistically simulates all the functions and controls of an echo sounder and that meets IMO performance standards,	the candidate turns on, tests, and operates the echo sounder.	 The candidate: Turns the system on; Tests the echo sounder in accordance with manufacturer's recommendations; Notes the correct UTC on the echo sounder paper (if fitted); 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 Adjusts the sensitivity to obtain proper depth reading on the display and correct trace on the paper (if fitted).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.6.A Magnetic variation <i>Note 2</i>	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.	 Comparing the locations of the geographic and magnetic poles; and Explaining why an annual change correction is needed.
1.6.B Correct for true heading <i>Note 2</i>	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 true heading is corrected for variation found on the chart provided and the solution matches the correct true heading within 0.5°.
1.6.C Compass deviation <i>Note 2</i>	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: Cause of permanent deviation aboard ship; Induced causes of deviation aboard ship; and An explanation of why deviation changes over time, location, heading, loaded condition; and onboard equipment location.
1.6.D Magnetic compass correction <i>Note 2</i>	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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.7.A Determine the gyro-compass error by bearing of range <i>Note 2</i>	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 gyro- compass error.	 The candidate: Compares the visual bearing to the charted bearing; Determines the gyro-compass error and properly labels it; and Determines the gyro-compass error to within 1.0° of the assessor's solution.
1.7.B Determine magnetic compass error <i>Note 2</i>	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, on a simulator, or in a navigation laboratory when given a magnetic and gyro-heading, the gyro error and a chart that provides local variation,	the candidate determines the magnetic compass error.	 The candidate: Compares the magnetic compass heading to the corrected gyro heading (corrected for a known gyro error); Determines the magnetic compass error and properly labels it; Determines the magnetic compass error to within 1.0° of the assessor's solution; and Correctly records it in the compass record book and the ship's log.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.7.C Determine magnetic compass deviation <i>Note 2</i>	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, equipped with both a magnetic and gyrocompass using navigational or natural terrestrial ranges, using only a magnetic compass, and a chart with variation,	the candidate notes the vessel's magnetic- compass heading while aligned on the range and determines magnetic compass deviation.	 The candidate: Compares the magnetic compass heading to the charted range bearing; Determines the magnetic compass error and properly labels it; Determines variation from the chart; Determines the magnetic compass deviation to within 1.0° of the assessor's solution; and Correctly records it in the compass record book and the ship's log.
1.7.D Determine course to steer by magnetic compass <i>Note 2</i>	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 compass error to the course by magnetic compass to make good the intended true course.	The candidate correctly applies the compass error to the magnetic course and the solution is 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.E Position fix by magnetic compass bearings <i>Note 2</i>	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 no more than 1:150,000,	the candidate correctly applies the compass error to the compass bearings by magnetic compass of at least two charted objects and plots them on the chart in use.	 Correctly applies compass error to the magnetic compass bearings; and Determines the objects' position to within 1.0° of the assessor's solution.
1.7.F Azimuth of the sun <i>Note 2</i>	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. <i>Electronic</i> <i>nautical almanac</i> <i>and celestial</i> <i>navigation</i> <i>calculation</i> <i>software may be</i> <i>used.</i>	 The candidate: Reads the azimuth of the sun when the repeater is level; Notes the time of the reading; Determines the true azimuth of the sun for the time of the reading; Compares the gyro-compass to the true azimuth and determines gyro error; and Determines 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
1.8.A Steering gear test <i>Note 2</i>	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: Turns on the steering control system; Aligns the steering gyro-repeater with the master gyro-compass; Tests the controls for switching pumps and motors between the port and starboard steering systems after the required warm-up period; and 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.
1.8.B Set weather controls <i>Note 2</i>	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: Weather control in accordance with the manufacturer's recommendations for the prevailing sea conditions for the area transited or simulated; and Rate of turn control (if fitted) in accordance with the standing orders.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.9.A Read barometric pressure	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: Reads the barometer and applies the appropriate corrections; and Determines the barometric pressure to within 0.5 millibar, 0.02 inch or 0.4 millimeter of the assessor's corrected reading.
1.9.B Determine true wind speed and direction	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.
1.10.A Characteristics of a cold front	Plan and conduct a passage and determine position	<i>Meteorology</i> Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	In an approved or accepted Basic Meteorology course, 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 expected: Change in the barometer as the front approaches; Change in the barometer after the front passes; Temperature change as the front passes; Wind shift as the front passes; and Precipitation as the front passes.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.10.B Characteristics of a warm front	Plan and conduct a passage and determine position	<i>Meteorology</i> Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	In an approved or accepted Basic Meteorology course, 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 expected: Change in the barometer as the front approaches; Change in the barometer after the front passes; Temperature change as the front passes; Wind shift as the front passes; and Precipitation as the front passes.
1.10.C Characteristics of an occluded front	Plan and conduct a passage and determine position	<i>Meteorology</i> Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	In an approved or accepted Basic Meteorology course, 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 expected: Change in the barometer as the front approaches; Change in the barometer after the front passes; Temperature change as the front passes; Wind shift as the front passes; and Precipitation as the front passes.
1.10.D Characteristics of a low pressure area	Plan and conduct a passage and determine position	<i>Meteorology</i> Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	In an approved or accepted Basic Meteorology course, 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 expected: Change in the barometer as the center of the low pressure system approaches; Change in the barometer after the center of the low passes; Wind shift as the low passes; and Precipitation as the low passes.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.10.E Characteristics of a high pressure area	Plan and conduct a passage and determine position	<i>Meteorology</i> Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	In an approved or accepted Basic Meteorology course, 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 (or the answer selected) 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.
1.10.F Characteristics and expected locations of weather systems	Plan and conduct a passage and determine position	<i>Meteorology</i> Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	In an approved or accepted Basic Meteorology course, on a vessel, or in a laboratory, when asked to describe the characteristics and expected locations of weather systems,	the candidate describes (or selects the answer that describes) the characteristics and expected locations of weather systems.	 The candidate's description (or the answer selected) includes the: 1. Doldrums; 2. Trade winds; 3. Horse latitudes; 4. Prevailing westerlies; and 5. Polar winds.
1.10.G Determine expected weather conditions	Plan and conduct a passage and determine position	<i>Meteorology</i> 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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.1.A Identify light configurations <i>Note 2</i>	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 through observation of 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 <i>Note 2</i>	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 through observation of their required shapes.	The candidate correctly identifies the situation or occupation of 4 of 5 vessels that have different required shapes.
2.1.C Identify sound signals <i>Note 2</i>	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 have different required shapes.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.1.D Determine risk of collision <i>Note 2</i>	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: Takes two visual bearings of an approaching vessel using an azimuth circle, bearing circle, alidade, or other means resulting in 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 Takes two 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; and
2.1.E Maneuver to avoid risk of collision – crossing <i>Note 2</i>	Maintain a safe navigational watch	<i>Watchkeeping</i> 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 maneuvers the vessel to avoid collision, if required.	 The candidate: Determines the aspect of the approaching vessel; Identifies the situation as a crossing situation; 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 Makes speed or course changes that are 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
2.1.F Maneuver to avoid risk of collision – meeting <i>Note 2</i>	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 maneuvers the vessel to avoid collision, if required.	 The candidate: Determines the aspect of the approaching vessel; Identifies the situation as a meeting situation; 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 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 <i>Note 2</i>	Maintain a safe navigational watch	<i>Watchkeeping</i> 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 maneuvers the vessel to avoid collision, if required.	 The candidate: Determines the aspect of the approaching vessel; Identifies the situation as an overtaking situation; Attempts VHF communications with the overtaking vessel; Sounds the danger signal, if required by the rules; 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 Makes speed or course changes 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
2.2.A Watch relief <i>Note 2</i>	Maintain a safe navigational watch	and Proficiency 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 3-1, Paragraphs 21 and 22.	 The candidate: Reads the standing orders and night orders; Determines and compares the vessel's position, course and speed with the DR position and track; Notes the position of the next charted waypoint; Verifies the identities of critical aids to navigation in sight; Determines tides and current as necessary; Checks and properly tunes the radar and/or ARPA, if fitted; 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.

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2.2.B Keep a safe navigation watch <i>Note 2</i>	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 3-1, Paragraphs 23 to 50.	 The candidate ensures that the: Voyage plan is closely and continuously monitored; Proper lookout is maintained by all available means; Safe speed is maintained; Position, course, and speed are checked at frequent intervals; Steering mode selected is appropriate; Under-keel clearance is suitable for the draft of the vessel at all times; Course changes are made in accordance with the voyage plan; Vessel's position is fixed and plotted on an appropriate chart at intervals suitable to the vessel's speed and the area being transited; Identities of critical aids to navigation in sight are determined; 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; Radio equipment is frequently checked and found to be functioning properly;

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.B					Continued from previous page
<i>Cont'd</i> Keep a safe navigation					12. Risk of collision with approaching vessels is determined and early and substantial action, if required, is taken in accordance with COLREGS;
watch					13. Rudder and engine orders are executed as ordered;
Note 2					 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;
					 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 to allow for set and drift;
					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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2.2.C Notify Master when appropriate <i>Note 2</i>	Maintain a safe navigational watch		Condition On a vessel when asked to describe when the Master should be notified of unusual or unexpected circumstances,	Behavior the candidate describes when to notify the Master in accordance with STCW Code Section A-VIII/2, Part 3-1, Paragraph 40.	 The candidate's description includes notifying the Master immediately when: Restricted visibility is encountered or expected; Vessel traffic density or the movement of other vessels causes concern; Difficulty is experienced in maintaining course; Failure to sight land or a navigational mark, or to obtain soundings when expected; Aids to navigation are not in position or are displaying incorrect characteristics; Land or a navigational mark is sighted unexpectedly, or soundings change unexpectedly; Engines or their control systems, steering, or any essential navigational equipment fails, or alarms or indicators for these systems fail; 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.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.D Keep a safe anchor watch OSV	Maintain a safe navigational watch	<i>Watchkeeping</i> 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 3-1, Paragraph 51.	 The candidate's description includes all of the following: Determining the vessel's position and plotting the swing of the vessel; Frequently checking the vessel's position by visual and radar bearings and radar ranges from the same charted objects; Establishing GPS anchor alarms; Maintaining a proper lookout; Making periodic inspections; When necessary, posting a rating at the anchor to carry out orders with respect to the anchor; Monitoring of weather, tides, and sea state; Notifying the Master immediately when the weather changes, visibility becomes restricted, or the anchor starts to drag; Keeping engines ready for immediate use, where conditions require (open roadsteads, strong winds, or current and poor holding ground); and 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	Maintain a safe	Watchkeeping	On a vessel	the candidate	The candidate ensures that:
Turn over a	navigational watch	Thorough knowledge	underway,	properly turns the watch over.	1. DR position is plotted for the end of the watch;
watch Note 2		of the principles to be observed in keeping a		water over.	 Vessel's position is determined and plotted by all means appropriate to the area being transited;
		navigational watch			 Required weather data is read and recorded in the deck log;
					 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;
					 Vessel's course and speed, special lookouts, steering mode in use, and weather and visibility are relayed to the relieving officer;
					 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, 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

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.3.A Voyage	Maintain a safe navigational watch	<i>Watchkeeping</i> The use of routing in	On a vessel, in a simulator, or on a navigation	the candidate collects the information to	The candidate ensures that the following are taken into account when creating a voyage plan:
Planning – Appraisal <i>Note 2</i>		accordance with the General Provisions on Ships' Routing	laboratory, when given a port of departure and a	plan a safe and environmentally sound voyage	1. Condition of the vessel, its stability, equipment, operational limitations, draft, and maneuvering characteristics;
noie 2			port of arrival that are between 600	plan, taking into account	 Any special characteristics of the cargo and its stowage;
			nm and 1,000 nm apart,	paragraph 2 of the annex to IMO	3. Crewmembers' competency and rest status;
			- r ,	Assembly	4. Validity of all vessel certificates and documents;
				Resolution A893(21).	 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;
					 Ship reporting systems, VTS, and environmental protection measures;
					12. Vessel traffic density for the route;
					13. Pilotage requirements and information exchange; and
					 Port information, including emergency response capability.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.3.B Voyage Planning – Planning <i>Note 2</i>	Maintain a safe navigational watch	<i>Watchkeeping</i> 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: Plots courses on appropriately scaled charts noting the ETA at each way point, including the final way point; Correctly calculates and indicates courses and distances between way points on the charts; Calculates the most direct route that avoids all hazards to navigation by a margin of safety of 3 nm; Determines the areas of all required speed changes; Determines positions requiring a change of machinery status; Determines the state of the tide and currents at the port of departure for the times of departure and transit; Creates a contingency plan for alternative actions in cases of emergency; Determines all relevant navigation information used to identify protected marine habitats, areas and sanctuaries; and Reviews the voyage plan with the Master and deck officers.

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Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.3.C	Maintain a safe	Watchkeeping	On a vessel or on	the candidate	The candidate:
Execute a voyage plan	navigational watch	The use of routing in accordance with the	a simulator, when given a voyage plan,	executes the plan, taking into account	1. Checks the reliability and condition of navigational equipment frequently;
Note 2		General Provisions on Ships' Routing	prom,	paragraph 4 and 5 of the annex to IMO Assembly	2. Applies basic information obtained from the tide tables and other navigational publications to determine under keel clearance;
				Resolution	3. Fixes position at appropriate intervals;
				A893(21).	4. Frequently checks compasses;
					5. Assesses meteorological information;
					6. Determines compass error;
					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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.4.A Situational awareness <i>Note 2</i>	Maintain a safe navigational watch	<i>Watchkeeping</i> 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 with regard to: 1. Hazards to navigation; 2. Navigational landmarks; 3. The vessel's location relative to the intended track; 4. Maritime traffic, both with a potential for collision and being well clear; 5. Weather; 6. Sea state; 7. Location and duties of watch partners; 8. Limitations in propulsion and steering systems; and 9. Maintaining appropriate communications.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.5.A Navigate in restricted visibility <i>Note 2</i>	Maintain a safe navigational watch	<i>Watchkeeping</i> 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 3-1, Paragraph 45.	 The candidate: Determines the restricted visibility; Notifies Master of restricted visibility; Switches to hand steering; Posts a proper lookout and turns the running lights on; Adjusts the vessel's speed per Rule 6; Sounds the required sound signals; Sets the radar and/or ARPA on the appropriate scale to scan at long range for other vessels; Plots all approaching targets on the radar or ARPA, if fitted; and Uses radar or ARPA, if fitted, to obtain early warning of risk of collision and to determine the speed and direction of relative motion.
2.6.A Vessel Traffic Systems <i>Note 2</i>	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: Establish communications with a VTS; Providing the initial information exchange as required by the VTS; Updating information during transit as required by the VTS; Updating information as required by the VTS, if the vessel anchors and/or berths; and Closing communications with the VTS as the vessel departs the VTS jurisdiction.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7.A Recognition of watch condition OSV	Maintain a safe navigational watch	Bridge resource management Knowledge of bridge resource management principles, including: .1 Allocation, assignment, and prioritization of resources .2 Effective communication .3 Assertiveness and leadership .4 Obtaining and maintaining situational awareness .5 Consideration of team experience	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	Maintain a safe navigational watch	 Bridge resource management Knowledge of bridge resource management principles, including: Allocation, assignment, and prioritization of resources Effective communication Assertiveness and leadership Obtaining and maintaining situational awareness Consideration of team experience 	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: Determines the risk and danger of collision of all approaching vessels within 6 minutes; Immediately notifies the watch officer of the relative position of the threatening vessel, its CPA and TCPA; Recommends course and/or speed changes in accordance with COLREGS to remove the risk of collision and prevent close-quarters situations from developing; 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; Ensures that all recommended course changes provide sufficient sea room and bottom clearance for the area being transited; Ensures that communications are clear, immediate, reliable, and relevant; and Ensures that non-essential activities are avoided.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.7C BRM Condition III Navigation Note 2	Maintain a safe navigational watch	Bridge resource management Knowledge of bridge resource management principles, including: .1 Allocation, assignment, and prioritization of resources .2 Effective communication .3 Assertiveness and leadership .4 Obtaining and maintaining situational awareness .5 Consideration of team experience	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 an IMO compliant ARPA, a GPS or DGPS receiver, and 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: Uses visual and electronic means to determine the vessel's position, including GPS or DGPS, radar, ARPA, ECDIS (if fitted), and echo sounder; 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; Determines the correct courses to steer to maintain the vessel on the intended track and recommends them to the conning officer; Answers all VHF calls to own vessel and makes calls to other vessels in the area and to port authorities as required; Monitors the helmsman to ensure all rudder commands are carried out; Ensures that communications are clear, immediate, reliable, and relevant; Ensures that non-essential activities are avoided; and 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 <i>Note 2</i>	Maintain a safe navigational watch	Bridge resource management Knowledge of bridge resource management principles, including: .1 Allocation, assignment, and prioritization of resources .2 Effective communication .3 Assertiveness and leadership .4 Obtaining and maintaining situational awareness .5 Consideration of team experience	 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: Incorrect rudder order is given; Rudder or engine command not given at proper time; Navigational aid is misidentified; Position is improperly fixed; or 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: Detects the misinformation or command error; and Notifies the watch 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 watch officer within 5 seconds).

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, including: .1 Allocation, assignment, and prioritization of resources .2 Effective communication .3 Assertiveness and leadership .4 Obtaining and maintaining situational awareness .5 Consideration of team experience	 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: Assesses the situation; Determines which priority action must be taken for the safety of the vessel; Recommends that the engines be slowed or stopped in sufficient time to avoid the collision with the vessel on the starboard bow; and 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 <i>Note 2</i>	Maintain a safe navigational watch	 Bridge resource management Knowledge of bridge resource management principles, including: Allocation, assignment, and prioritization of resources Effective communication Assertiveness and leadership Obtaining and maintaining situational awareness Consideration of team experience 	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 ARPA, a GPS or DGPS receiver and 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: Determines the vessel's position and plots it at suitable intervals; Identifies all aids to navigation; Notifies the bridge team immediately of the following:

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, including: Allocation, assignment, and prioritization of resources Effective communication Assertiveness and leadership Obtaining and maintaining situational awareness Consideration of team experience 	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 or danger 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 the bridge team duties, considering their background, experience, and abilities, to the following tasks: 1. Conning; 2. Lookout; 3. Collision avoidance; 4. Navigation; 5. Communication; and 6. Administration.
3.1 Radar fundamentals <i>Course</i> <i>Note 2</i>	Use of radar and ARPA to maintain safety of navigation	<i>Radar navigation</i> Knowledge of the fundamentals of radar and automatic radar plotting aids (ARPA)		R 11.309(a)(4)(ii) wit	ate has successfully completed the Radar Observer course hin the previous 5 years or holds a valid Radar Observer

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.2.A Set up and maintain radar display <i>Note 2</i>	Use of radar and ARPA to maintain safety of navigation	<i>Radar navigation</i> Ability to operate and to interpret and analyze information obtained from radar, including setting up and maintaining displays	Using an operational radar or radar simulator that meets the standards of 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 after the power is turned on: 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.
3.2.B Switch display modes <i>Note 2</i>	Use of radar and ARPA to maintain safety of navigation	<i>Radar navigation</i> Ability to operate and to interpret and analyze information obtained from radar, including setting up and maintaining displays.	Using an operational radar or radar simulator that meets the standards of 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: Switches the display from north-up stabilized relative motion to true motion; Switches the display from true motion to head-up; and Points to the location on the display of the information that indicates the mode displayed.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.3.A Identify false echoes, sea return, racon and SART <i>Note 2</i>	Use of radar and ARPA to maintain safety of navigation	<i>Radar navigation</i> 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 an operational radar or radar simulator that meets the standards of 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: False echoes; Indirect or false echoes; Side-lobe effects; Multiple echoes; Second-trace echoes; Electronic interference; Spoking; Sea return; Racons; and SARTs.
3.4 Determine range and bearing <i>Course</i> <i>Note 2</i>	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 the following: range and bearing; course and speed of other ships; time and distance of closest approach of crossing, meeting overtaking ships	This KUP is demonstrated if the candidate has successfully completed the Radar Observer of specified in 46 CFR 11.309(a)(4)(ii) within the previous 5 years or holds a valid Radar Obs (Unlimited) endorsement.		

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 <i>Note 2</i> <i>ARPA</i>	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 the standards of 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 Manual target acquisition <i>Course</i> <i>Note 2</i> <i>ARPA</i>	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 demor in 46 CFR 11.309(a		te has successfully completed the ARPA course specified

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard	
4.1 Course Note 2 ECDIS	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 11.309(a)(2)(xvi).			
4.2 Course Note 2 ECDIS	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 11.309(a)(2)(xvi).			
5.1.A Passenger safety <i>Note 2</i>	Respond to emergencies	<i>Emergency</i> <i>procedures</i> 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 described situation.	
5.2.A Action following collision or grounding <i>Note 2</i>	Respond to emergencies	<i>Emergency</i> <i>procedures</i> 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 for the described situation and includes initial damage assessment and control.	

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
5.3.A Rescuing persons from the sea, assisting a ship in distress, emergencies in port. <i>Note 2</i>	Respond to emergencies	<i>Emergency</i> <i>procedures</i> 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 for the described situation.
6.1.A IAMSAR Manual	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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
7.1 Standard Marine Communication Phrases <i>Course</i> <i>Note 2</i>	Use the IMO Standard Marine Communication Phrases and use English in written and oral form	<i>English language</i> 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)			l completion of the training in IMO Standard Marine ied in 46 CFR 11.309(a)(4)(ix).

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
8.1.A Use the International Code of Signals <i>Note 2</i>	Transmit and receive information by visual signaling	Visual signaling Ability to use the International Code of Signals	On a vessel or in a laboratory, when provided with a group of three letters, and the International Code of Signals,	the candidate uses the International Code of Signals to identify the 3- letter group.	The candidate correctly identifies the signal.
8.2.A Recognize distress signal "SOS" <i>Note 2</i>	Transmit and receive information by visual signaling	Visual signaling Ability to use the International Code of Signals	On a vessel or in a laboratory, using a device sending flashing light messages at a speed of 4 words per minute, when sent a message consisting of four or more 3-letter groups, one of which should be the distress signal "SOS"	the candidate identifies which 3-letter group was the distress signal "SOS."	The candidate correctly identifies which 3-letter group was the distress signal "SOS."

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
8.2.B Recognize single letter signals <i>Note 2</i>	Transmit and receive information by visual signaling	<i>Visual signaling</i> Ability to use the International Code of Signals	On a vessel or in a laboratory, using a device sending flashing light messages at a speed of 4 words per minute, when sent a message consisting of ten single letters,	the candidate identifies the single letters.	The candidate correctly identifies at least 7 of the 10 single letters.
9.1.A Turning circles and stopping distances <i>Note 2</i>	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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
9.2.A Course change of more than 45° <i>Note 2</i>	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: 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; Reduces rudder as the vessel approaches the new course; and Steadies on the new course without over-shooting the course by more than 10°.
9.2.B Emergency stop Note 2	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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
9.3.A Maneuver for a man overboard <i>Note 2</i>	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: Orders full rudder to the side of the MOB; Sounds MOB signal if other vessels are in sight; Simulates releasing the lighted buoy; Marks the vessel's position on ARPA/GPS (if fitted); Simulates a "Mayday" call on VHF notifying any vessels in vicinity of the MOB; Completes the recovery turn; States the rescue boat would be prepared for launch or scrambling nets rigged on the side of the vessel; and 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
9.5.A Knowledge of anchoring and mooring <i>Note 2</i>	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 and mooring,	the candidate describes proper procedures for anchoring and mooring.	 The candidate's description includes: 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; Approach: Ensure that the vessel does not pass to windward or up current of any anchored vessel or hazard to navigation; 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; Laying out: a. The vessel is backed slowly; and b. A length of chain 5 to 7 times the water depth is paid out slowly; and Fetching up: a. The vessel is allowed to fetch up; and b. The vessel rides on a final heading.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
10.1 Effect of cargo on seaworthiness and stability <i>Course</i> <i>OSV</i>	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	specified in 46 CFR		l completion of the Stability and Ship Construction course This training may be tailored to be specific to OSVs and able to OSVs.
10.2.A Safe handling, stowage and securing of cargoes	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 aboard OSVs, 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: Includes the handling of dangerous, hazardous, and harmful cargoes; and Complies with international regulations and recognized standards and codes of safe practice.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
10.3.A Effective communications during loading and unloading <i>Note 2</i>	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	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 due to: .1 Loading and unloading operations .2 Corrosion .3 Severe weather conditions	On a vessel, or in a laboratory, when asked to describe appropriate inspection procedures for cargo spaces and ballast tanks on OSVs,	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.
11.2.A Inspection scheduling and frequency	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.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
11.3 Ship structure Course OSV	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	specified in 46 CFF	R 11.309(a)(4)(xii).	l completion of the Stability and Ship Construction course This training may be tailored to be specific to OSVs inapplicable to OSVs.
11.4.A Causes of corrosion in cargo spaces and ballast tanks <i>Note 2</i>	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.
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 on OSVs,	the candidate describes inspection procedures.	The candidate correctly describes appropriate inspection procedures.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
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 on OSVs,	the candidate describes appropriate inspection procedures.	The candidate correctly describes appropriate inspection for reliable detection of defects and damages.
12.1.A Precautions to prevent pollution of the marine environment <i>Note 2</i>	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: Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements are fully observed; and Actions to ensure that a positive environmental reputation is maintained.
12.2.A Anti-pollution procedures and associated equipment <i>Note 2</i>	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 are fully observed; 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	
12.3.A Importance of proactive measures <i>Note 2</i>	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 Stability, trim and stress tables and diagrams <i>Course</i> <i>OSV</i>	Maintain seaworthiness of the ship	Ship stability Working knowledge and application of stability, trim and stress tables, diagrams and stress calculating equipment	This KUP is demonstrated by successful completion of the Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii). This training may be tailored to be specific to OSVs and need not include training that is inapplicable to OSVs.			
13.2 Partial loss of intact buoyancy <i>Course</i> <i>OSV</i>	Maintain seaworthiness of the ship	<i>Ship stability</i> Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy	This KUP is demonstrated by successful completion of the Stability and Ship Construction co specified in 46 CFR 11.309(a)(4)(xii). This training may be tailored to be specific to OS and need not include training that is inapplicable to OSVs.			
13.3 Fundamentals of watertight integrity <i>Course</i> <i>OSV</i>	Maintain seaworthiness of the ship	<i>Ship stability</i> Understanding of the fundamentals of watertight integrity	This KUP is demonstrated by successful completion of the Stability and Ship Construction courspecified in 46 CFR 11.309(a)(4)(xii). This training may be tailored to be specific to OSVs and need not include training that is inapplicable to OSVs.			

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard		
13.4 Ship structure <i>Course</i> <i>OSV</i>	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	This KUP is demonstrated by successful completion of the Stability and Ship Construction course specified in 46 CFR 11.309(a)(4)(xii). This training may be tailored to be specific to OSVs and need not include training that is inapplicable to OSVs.				
14.1 Course Note 2	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 Note 2	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 Note 2	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).				

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard		
14.4 Course Note 2	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	maintained the standards of competence for Basic Training and Advanced Firefighting as specified in 46 CFR 11.302(b) and 11.303(b).				
15.1 Course Note 2	Operate life-saving appliances	<i>Life-saving</i> 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	Proficiency in Surv Survival Craft and	ival Craft and Rescu Rescue Boats, other t maintained the stand	l completion of approved or accepted training for e Boats, other than Fast Rescue Boats or Proficiency in han Lifeboats and Fast Rescue Boats or by providing ards of competence for PSC or PSC-Limited as specified		

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
16.1 Course Note 2	Apply medical first aid on board ship	<i>Medical aid</i> 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		nstrated by successfu	l completion of an approved or accepted Medical First course.
17.1.A International Conventions <i>Note 2</i>	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.

Enclosure (2) to NVIC 01-17

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
18.1.A Duties and responsibilities of vessel personnel <i>Note 2</i>	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 the following: Master; Deck department including: a. Chief Mate; b. Second Mate; c. Third Mate; d. Able Seamen; and e. Entry Level Deck; Engine department including: a. Chief Engineer; b. First Assistant Engineer; c. Second Assistant Engineer; d. Third Assistant Engineer; e. QMEDs; and f. Entry Level Engine; and Steward's department ; and Maritime workers.

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

Enclosure (2) to NVIC 01-17

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
18.3.A Task and workload management <i>Note 2</i>	Application of leadership and team working skills	Ability to apply task and workload management, including: .1 planning and co-ordination .2 personnel assignment .3 time and resource constraints .4 prioritization	On a vessel or on a simulator, during an operation entering port and docking the vessel and acting as an OICNW, under the direct supervision of the Master or the watch's assigned OICNW,	the candidate performs the duties of an OICNW.	 The duties performed include: Planning and scheduling the order of events in anticipation of the operation; Giving or checking helm orders as per the Master's direction; Operating signal devices (flags, signal lights, radio communications, etc.) as directed by the Master; and Assigning and calling out personnel so that equipment is safely rigged and/or unrigged as needed.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
Task No./Name18.4.AResource managementNote 2	STCW Competence Application of leadership and team working skills	Understanding, and Proficiency Knowledge and ability to apply effective resource management: .1 Allocation, assignment, and prioritization of resources .2 Effective communication onboard and ashore .3 Decisions reflect consideration of team experiences .4 Assertiveness and leadership, including			 The candidate satisfactorily performs the following: Reviewing the overall plan with the Chief Mate or Master, as appropriate for the operation to be conducted; Checking the assigned equipment to ensure that it is ready for use; Briefing the 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; Delegating tasks to each of the assigned crewmembers, briefing them about any special procedures or events that may concern them; Establishing and maintaining communications with bridge, team and shore personnel;
		motivation .5 Obtaining and maintaining situational awareness			 Showing situational awareness by noting to the supervisor items of importance such as the location of any tugs within the candidate's area of responsibility, potential hazards that each team member may encounter, equipment available; and Actively managing 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)(1)(i), alternative guidelines must be approved by the National Maritime Center before use.

Enclosure (2) to NVIC 01-17

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
18.5.A Decision making techniques <i>Note 2</i>	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 supervises a fire or emergency team under the supervision of the normally assigned supervisor.	 The candidate: Briefs the team on the situation, the approach to remedying the simulated emergency, and the procedures to be executed; Delegates tasks to each of the assigned crewmembers, briefing them about any special procedures or events that may concern them; Checks the assigned crewmembers to ensure that they are using personal protective equipment (PPE) correctly and appropriately; 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; Executes the generated plan to handle the emergency simulation; and 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.

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)(1)(i), alternative guidelines must be approved by the National Maritime Center before their use.

Task No./Name	STCW Competence	STCW Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard	
19.1 Note 2 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 Note 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 Note 2 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 Note 2 Course	Contribute to the safety of personnel and ship	Knowledge of personal safety and social responsibilities	within the previous	five years or by prov	completion of approved or accepted Basic Training viding evidence of maintaining the standards of in 46 CFR 11.302(b).	

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)(1)(i), alternative guidelines must be approved by the National Maritime Center before use.

Record of Assessment

for

Officer in Charge of a Navigational Watch of Vessels of 500 GT or More Limited to Service on Offshore Supply Vessels

Print Name of Candidate

Candidate's Signature

Candidate's Mariner Reference Number

Enclosure (3) to NVIC 01-17

<u>NOTE TO QUALIFIED ASSESSOR(S)</u>: 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)(1)(i), alternative Assessment Guidelines must be approved by the National Maritime Center before use.

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Plan and conduct a passage and determine position	<i>Celestial Navigation</i> Ability to use celestial bodies to determine	1.1A Notes 1,2	Adjust a sextant		
	the ship's position	1.1B Notes 1,2	Measure the altitude of the sun		
		1.1C Notes 1,2	Measure the altitude of at least 3 stars		
		1.1D Notes 1,2	Measure the altitude of the sun at meridian passage (LAN)		
		1.1E Notes 1,2	Celestial running fix		
		1.1.F Notes 1,2	Plot star fix		

Notes:

- *Note 1* The assessment is not required for an endorsement that will be limited to near coastal waters.
- Note 2 The assessment is the same or equivalent to one for an endorsement that is not trade-restricted, and need not be repeated to remove the limitation to OSVs. Completion of the corresponding assessment from Navigation and Vessel Inspection Circular (NVIC) 12-14 will be accepted in lieu of this assessment.
- OSV The assessment is specific to OSVs, another assessment of the KUP will be needed to remove the limitation to OSVs. The identically numbered assessment(s) in NVIC 12-14 may be used for an endorsement that will not be limited to OSVs.
- 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.

Numbering gaps in the sequence of assessments are intentional to allow easy correlation to corresponding assessments for endorsements that are not limited to service on OSVs.

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Plan and conduct a passage and determine position	<i>Terrestrial Navigation</i> Ability to determine the ship's position by	1.2.A <i>Note 2</i>	Position fix by two bearings		
	use of landmarks, aids to navigation, and dead reckoning	1.2.B <i>Note 2</i>	Plot DR position		
		1.2.C <i>Note 2</i>	Determine the course to steer		
	Thorough knowledge of and ability to use nautical charts, and publications	1.3.A <i>Note 2</i>	Correction of charts and publications		
		1.3.B <i>Note 2</i>	Chart selection		
		1.3.C Note 2	Route planning		
	<i>Electronic navigation</i> Ability to determine the vessel's position by	1.4.A Note 2	Position fix by two ranges		
	use of electronic navigational aids	1.4.B <i>Note 2</i>	Position fix by tangents to identified objects		
		1.4.C <i>Note 2</i>	Position fix by GPS		
		1.4.D Note 2	Use of GPS position save function		
	<i>Echo-sounders</i> Ability to operate the equipment and apply the information correctly	1.5.A <i>Note 2</i>	Use of echo sounder		
	Compass – magnetic and gyro Knowledge of the principles of the	1.6.A <i>Note 2</i>	Magnetic variation		
	magnetic and gyrocompass	1.6.B <i>Note 2</i>	Correct for true heading		
		1.6.C <i>Note 2</i>	Compass deviation		
		1.6.D <i>Note 2</i>	Magnetic compass correction		

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Plan and conduct a passage	Compass – magnetic and gyro	1.7.A	Determine gyro-compass error by		
and determine position	Ability to determine errors of the magnetic and gyro-compasses and to allow for such errors	<u>Note 2</u> 1.7.B Note 2	bearing of range Determine magnetic compass error		
		1.7.C <i>Note 2</i>	Determine magnetic compass deviation		
		1.7.D Note 2	Determine course to steer by magnetic compass		
		1.7.E <i>Note 2</i>	Position fix by magnetic compass bearings		
		1.7.F <i>Note 2</i>	Azimuth of the sun		
	Steering control system Knowledge of steering control systems, operational procedures and change-over	1.8.A <i>Note 2</i>	Steering gear test		
	from manual to automatic control and vice versa. Adjustment of controls for optimum performance	1.8.B <i>Note 2</i>	Set weather controls		
	Meteorology Ability to use and interpret information	1.9.A	Read barometric pressure		
	obtained from shipborne meteorological instruments	1.9.B	Determine true wind speed and direction		
Plan and conduct a passage and determine position	Knowledge of the characteristics of the various weather systems, reporting	1.10.A	Characteristics of a cold front		
	procedures and recording systems	1.10.B	Characteristics of a warm front		
		1.10.C	Characteristics of an occluded front		
		1.10.D	Characteristics of a low pressure area		
		1.10.E	Characteristics of a high pressure area		
		1.10.F	Characteristics and expected locations of weather systems		
		1.10.G	Determine expected weather conditions		

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 content,	2.1.A Note 2	Identify light configurations		
	application and intent of the International Regulations for Preventing Collisions at	2.1.B <i>Note 2</i>	Identify day shapes		
	Sea, 1972	2.1.C Note 2	Identify sound signals		
		2.1.D Note 2	Determine risk of collision		
		2.1.E Note 2	Maneuver to avoid risk of collision – crossing		
		2.1.F Note 2	Maneuver to avoid risk of collision – meeting		
		2.1.G Note 2	Maneuver to avoid risk of collision – overtaking		
	Watchkeeping Thorough knowledge of the principles to be observed in keeping a navigational watch	2.2.A Note 2	Watch relief		
		2.2.B Note 2	Keep a safe navigation watch		
		2.2.C Note 2	Notify Master when appropriate		
		2.2.D OSV	Keep a safe anchor watch		
		2.2.E Note 2	Turn over a watch		
	Watchkeeping The use of routing in accordance with the	2.3.A Note 2	Voyage Planning – Appraisal		
	General Provisions on Ships' Routing	2.3.B <i>Note 2</i>	Voyage Planning – Planning		
		2.3.C <i>Note 2</i>	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		

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Maintain a safe navigational watch	Watchkeeping Knowledge of blind pilotage techniques	2.5.A Note 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 Note 2	Vessel Traffic Systems		
	Bridge resource management Knowledge of bridge resource	2.7.A OSV	Recognition of watch condition		
	management principles	2.7.B Note 2	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 <i>Note 2</i>	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	Set up and maintain radar display		
		3.2.B <i>Note 2</i>	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	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		

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 <i>Note 2</i>	Passenger safety		
	Initial action to be taken following a collision or a grounding; initial damage assessment and control	5.2.A Note 2	Action following collision or grounding		
	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	IAMSAR Manual		
Transmit and receive information by visual signaling	<i>Visual signaling</i> Ability to use the International Code of Signals	8.1.A Note 2	Use the International Code of Signals		
	Ability to transmit and receive, by Morse light, distress signal SOS and single-letter	8.2.A Note 2	Recognize distress signal "SOS"		
	signals as specified in the International Code of Signals	8.2.B Note 2	Recognize single letter signals		
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 2	Course change of more than 45°		
			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	Knowledge of shallow water effects		
	Knowledge of proper procedures for anchoring and mooring	9.5.A <i>Note 2</i>	Knowledge of anchoring and mooring		

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
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	10.2.A	Safe handling, stowage and securing of cargoes		
	Ability to establish and maintain effective communications during loading and unloading	10.3.A <i>Note 2</i>	Effective communications during loading and unloading		
Inspect and report defects and damage to cargo	Knowledge and ability to explain where to look for damage and defects	11.1.A	Inspection for damage and defects		
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	11.2.A	Inspection scheduling and frequency		
	State the causes of corrosion in cargo spaces and ballast tanks and how corrosion can be identified and prevented	11.4.A <i>Note 2</i>	5 1		
	Knowledge of procedures on how the inspections shall be carried out	11.5.A	Inspection procedures		
	Ability to explain how to ensure reliable detection of defects and damages	11.6.A	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 <i>Note 2</i>	Precautions to prevent pollution of the marine environment		
	Anti-pollution procedures and all associated equipment	12.2.A Note 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		

STCW Competence	STCW Knowledge, Understanding, and Proficiency	Task No.	Task Name	Assessor's Initials	Date
Application of leadership and	Working knowledge of shipboard	18.1.A	Duties and responsibilities of vessel		
team working skills	personnel management and training	Note 2	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 <i>Note 2</i>	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 <i>Note 2</i>	Decision making techniques		

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 500 GRT and/or 200 GT. 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). Military assessors should only conduct assessments that are within their personal experience and are relevant to the vessel on which they are conducted. For example, assessments involving the carriage of cargo should not be performed on a vessel that does not carry cargo and/or by an assessor who lacks experience on cargo-carrying vessels. After December 31, 2019, QAs must be approved by the National Maritime Center (46 CFR 10.107). Qualified military personnel 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's Name	Assessor's Signature	Sample Initials of Assessor	Assessor's Mariner Reference No.	Assessor's Shipboard Position
M/V Kackerlacka	3,456 GT	Ignatius J. Reilly	Ignatius J. Reilly	19R	567890	Master