## Assessment Guidelines for Master and Officer in Charge of a Navigational Watch of Vessels of Less than 500 GT Limited to Near-Coastal Waters

## **Standard of Competence**

Every candidate for an STCW endorsement as Master or Officer in Charge of a Navigational Watch (OICNW) of Vessels of Less Than 500 GT Limited to Near-Coastal Waters must provide evidence of having achieved the standard of competence as specified in Table A-II/3 of the STCW Code. The table below is adopted from Table A-II/3 of the STCW Code (found in Enclosure (4)) 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 QA 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, 2023, provided that the assessor meets the professional requirements in 46 CFR 10.405(a)(3) to assess competence for the specific endorsement. These assessments must be submitted to the Coast Guard as part of a complete application no later than June 30, 2024, 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)). Until June 30, 2024, the Coast Guard will accept assessments that were signed before January 1, 2024, by mariners who hold an appropriate national endorsement and have at least 1 year of experience on oceans or near-coastal vessels of at least 100 GRT. To assess candidates for Mate, this experience should be as Mate or Master, and to assess candidates for Master, the experience should be as Master. For assessments signed on a military vessel, the assessor should be authorized to conduct similar assessments for the U.S. Army, U.S. Navy, or U.S. Coast Guard Personnel Qualification Standard (PQS) for underway officer of the deck (OOD). 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, 2023, QAs must be approved by the National Maritime Center to (46 CFR 10.405). Qualified military personnel will not need to be approved QAs and may continue to sign assessments on military vessels after December 31, 2023.

#### **Notes**

The following notes are referred to in the "Task No." column of the assessment table:

*Course* The assessment may only be satisfied by successful completion of a Coast Guard approved or accepted course.

*Master* These assessments are only required for an endorsement as Master.

Radar Not required for mariners serving exclusively on vessels not fitted with radar. If the assessment is not completed, a limitation will be added to the STCW endorsement indicating that it is not valid for service on vessels equipped with radar.

ECDIS Not required for mariners serving exclusively on vessels not fitted with an Electronic Chart Display and Information System (ECDIS). If the mariner does not complete an approved ECDIS course, a limitation will be added to the STCW endorsement indicating that it is not valid for service on vessels equipped with ECDIS after December 31, 2016.

# Assessment Guidelines for Master and Officer in Charge of a Navigational Watch of Vessels of Less than 500 GT Limited to Near-Coastal Waters

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.1.A  Position fix by two bearings	Plan and conduct a coastal passage and determine position	Navigation Ability to determine the ship's position by the use of .1 landmarks .2 aids to navigation, including lighthouses, beacons and buoys	On a vessel underway, in a navigation laboratory, or on a simulator, with land and aids to navigation in sight, using appropriate available navigation equipment 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.	<ol> <li>The candidate's:</li> <li>Position is within ± 0.10 nm of the assessor's solution;</li> <li>Crossing angles of bearing is not less than 30° nor more than 160° between bearings;</li> <li>Bearings of objects abeam or close to the beam are observed first; and</li> <li>Chart in use is the largest scale suitable for the waters being transited.</li> </ol>
1.2.A Plot DR position	Plan and conduct a coastal passage and determine position	Navigation Ability to determine the ship's position by the use of .3 dead reckoning, taking into account winds, tides, currents and estimated speed	On a vessel underway or in a navigation laboratory, 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 (or more frequently, if required) for the next 4 hours.	The candidate's positions are within $\pm$ .25 nm of the assessor's.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.3.A  Determine the course to steer  1.4.A  Correction of charts and publications	Plan and conduct a coastal passage and determine position  Plan and conduct a coastal passage and determine position	Navigation Ability to determine the ship's position by the use of .3 dead reckoning, taking into account winds, tides, currents and estimated speed  Thorough knowledge of and ability to use nautical charts and publications, such as sailing directions, tide tables, notices to mariners, radio navigational warnings	On a vessel underway 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,  On a vessel or in a navigation laboratory, given notices to mariners and uncorrected charts and publications,	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 candidate corrects 5 charts and 3 publications, including the <i>Light List</i> or the <i>List of Lights</i> (or international equivalents).	The course to steer determined by the candidate is within ± 5° of the assessor's solution.  The candidate:  1. Identifies charts and publications needing correction;  2. Correctly makes corrections to the affected charts and publications;  3. Records all chart corrections on the chart and in the chart-correction record or on the chart-correction spreadsheet; and
		and ships' routing information			4. Records corrections to all publications on the correction page of the publication and on the publication-correction card or the publication-correction spreadsheet.
Chart-selection	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 a voyage of at least 600 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.	<ol> <li>Correctly identifies and records the names and numbers of the charts;</li> <li>Selects the charts with the largest scales appropriate for the area being transited; and</li> <li>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.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.4.C Route planning	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 navigation laboratory, when given three way-points consisting of a position of departure, a position of arrival, and one other way-point, with a total distance of more than 600 nm,	the candidate determines the appropriate courses and distances between way-points, and plots the intended courses on the charts selected.	<ol> <li>Correctly calculates courses and distances between way-points within 3 nm and/or 1° of the assessor's solution;</li> <li>Ensures that the route is the most direct; and</li> <li>Plots the courses on the appropriately scaled charts noting the ETA at each way-point, including final way-point.</li> </ol>
1.5.A- Vessel Traffic- System (VTS)	Plan and conduct a coastal passage and determine position	Reporting in- accordance with- General Principles for Ship Reporting- Systems and with VTS- procedures-	On a vessel or simulator,	the candidate navigates through a VTS, observing the VTS-user's guide.	<ol> <li>Communicates with the VTS;</li> <li>Provides the initial information exchange required by the VTS;</li> <li>Updates information during transit as required by the VTS;</li> <li>Updates information if the vessel anchors and/or berths; and</li> <li>Closes communications with the VTS as the vessel departs the VTS jurisdiction.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.6.A Voyage Planning - Appraisal  Master	Plan and conduct a coastal passage and determine position	Voyage planning and navigation for all conditions by acceptable methods of plotting coastal tracks, taking into account, e.g.:  1 restricted waters  2 meteorological conditions  3 ice  4 restricted visibility  5 traffic separation schemes  6 vessel traffic service (VTS) areas  7 areas of extensive tidal effects	On a ship, a simulator, or in a navigation laboratory, when given a port of departure and a port of arrival not more than 600 nm apart,	the candidate collects the information to plan a safe and environmentally sound voyage plan.	<ol> <li>The candidate ensures the following are taken into account and develops a voyage plan for the vessel:</li> <li>The condition of the vessel, its stability, equipment, operational limitations, draft, and maneuvering characteristics;</li> <li>Any special characteristics of the cargo and its stowage;</li> <li>Crew members' competency and rest status;</li> <li>The validity of all ship's certificates and documents;</li> <li>Up-to-date charts of proper scale, and the latest notices to mariners and radio navigational warnings;</li> <li>Up-to-date coast pilots, sailing directions, and other information sources appropriate for the voyage;</li> <li>Relevant routing guides;</li> <li>Up-to-date tide and current tables and atlases;</li> <li>Weather information and routing;</li> <li>Ship reporting systems, VTS and environmental protection measures;</li> <li>Vessel traffic density for the route;</li> <li>Pilotage requirements and information exchange; and</li> <li>Port information, including emergency response capability.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.6.B Voyage Planning - Planning Master	Plan and conduct a coastal passage and determine position	Voyage planning and navigation for all conditions by acceptable methods of plotting coastal tracks, taking into account, e.g.:  1 restricted waters  2 meteorological conditions  3 ice  4 restricted visibility  5 traffic separation schemes  6 vessel traffic service (VTS) areas  7 areas of extensive tidal effects	On a ship, a simulator, or in a navigation laboratory, when given a port of departure and a port of arrival not more than 600 nm apart,	the candidate plans a safe and environmentally sound voyage plan.	<ol> <li>The candidate:</li> <li>Plots courses on appropriately scaled charts noting the ETA at each way-point, including the final way-point;</li> <li>Correctly calculates and indicates courses and distances between way-points on the charts;</li> <li>Determines the most direct route that avoids all hazards to navigation by an appropriate margin of safety;</li> <li>Determines the areas of all required speed changes;</li> <li>Determines minimum underkeel clearances in critical areas, and positions requiring a change of machinery status;</li> <li>Determines way-points of all course changes;</li> <li>Determines the state of the tide and currents at the port of departure for the times of departure and transit;</li> <li>Creates a contingency plan for alternative actions in cases of emergency;</li> <li>Determines relevant navigation information used to identify protected marine habitats, areas and sanctuaries; and</li> <li>Reviews the plan with the navigation team.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.6.C Voyage Planning - Execution  Master	Plan and conduct a coastal passage and determine position	Voyage planning and navigation for all conditions by acceptable methods of plotting coastal tracks, taking into account, e.g.:  1 restricted waters  2 meteorological conditions  3 ice  4 restricted visibility  5 traffic separation schemes  6 vessel traffic service (VTS) areas  7 areas of extensive tidal effects	On a ship, a simulator, or in a navigation laboratory, when given a voyage plan,	the candidate executes the plan.	<ol> <li>The candidate:         <ol> <li>Checks the reliability and condition of the navigational equipment frequently;</li> <li>Applies basic information obtained from the tide tables and other navigational publications to determine underkeel clearance;</li> <li>Fixes the vessel's position at appropriate intervals;</li> <li>Frequently checks compass(es);</li> <li>Assesses meteorological information;</li> <li>Determines compass error;</li> <li>Applies set and drift and other needed course corrections;</li> <li>Correctly operates and applies information from electronic navigation systems;</li> <li>Correctly operates the radar and ARPA, if fitted, and applies the information for navigation and collision avoidance;</li> </ol> </li> <li>Correctly operates propulsion and steering systems to control heading and speed;</li> <li>Initiates action in the event of a real or simulated equipment malfunction or failure of major items of equipment;</li> </ol> <li>Correctly conducts radio-communications;</li> <li>Monitors and correctly operates safety and alarm systems; and</li> <li>Closely and continuously monitors the voyage plan.</li>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard	
1.7.A ECDIS Course	Plan and conduct a coastal passage and determine position	Thorough knowledge of and ability to use ECDIS	This KUP is satisfied if the candidate has successfully completed the approved or accepted <i>ECDIS</i> course specified in 46 CFR 11.317(a)(3)(v) and 46 CFR 11.321(a)(3)(v).			
1.8.A  Position fix by two ranges  Radar	Plan and conduct a coastal passage and determine position	Navigational aids and equipment  Ability to operate safely and determine the ship's position by use of all navigational aids and equipment commonly fitted on board the ships concerned	On 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 $\pm0.10$ nm of the assessor's position.	
1.8.B  Position fix by tangents to objects  Radar	Plan and conduct a coastal passage and determine position	Navigational aids and equipment  Ability to operate safely and determine the ship's position by use of all navigational aids and equipment commonly fitted on board the ships concerned	On 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 tangents measured from identified-charted objects or points of land and plots them.	The candidate's position is within $\pm0.10$ nm of the assessor's position.	

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1.8.C Position fix by GPS	Plan and conduct a coastal passage and determine position	Navigational aids and equipment  Ability to operate safely and determine the ship's position by use of all navigational aids and equipment commonly fitted on board the ships concerned	On a vessel underway, or on a simulator, or in a navigation laboratory, using a GPS or DGPS receiver which meets IMO performance standards,	the candidate initializes a GPS or DGPS receiver, determines the ship's position and evaluates the accuracy of that position by independent methods.	The candidate:  1. Initializes the system; and  2. Determines the accuracy of the position.
1.8.D Use of GPS position save function	Plan and conduct a coastal passage and determine position	Navigational aids and equipment  Ability to operate safely and determine the ship's position by use of all navigational aids and equipment commonly fitted on board the ships concerned	On a vessel underway, or on a simulator, or in a navigation laboratory, using a GPS or DGPS receiver which meets IMO performance standards, when hearing "Man Overboard,"	the candidate activates the man overboard / emergency position save function.	The candidate saves or records the ship's position within 1 minute of hearing "Man Overboard."

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1.8.E Use of echo sounder	Plan and conduct a coastal passage and determine position	Navigational aids and equipment  Ability to operate safely and determine the ship's position by use of all navigational aids and equipment commonly fitted on board the ships concerned	On a vessel underway, using an echo sounder which meets IMO performance standards or a part-task trainer that realistically simulates all the functions and controls of an echo sounder and which meets IMO performance standards,	the candidate turns on, tests, and operates the echo sounder.	<ol> <li>The candidate:         <ol> <li>Turns the system on;</li> <li>Tests the echo sounder in accordance with manufacturer's recommendations;</li> <li>Notes the correct UTC on the echo sounder paper (if fitted);</li> </ol> </li> <li>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</li> <li>Adjusts the sensitivity to obtain proper depth reading on the display and correct trace on the paper (if fitted).</li> </ol>
1.9.A  Determine magnetic compass deviation	Plan and conduct a coastal passage and determine position	Compasses  Ability to determine errors of the compass, using terrestrial means, and to allow for such errors	On a vessel or simulator, 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 the magnetic compass deviation.	<ol> <li>The candidate:</li> <li>Compares the magnetic compass heading to the charted range bearing;</li> <li>Determines the magnetic compass error and properly labels it;</li> <li>Determines variation from the chart;</li> <li>Determines the magnetic compass deviation to within ± 1.0° of the assessor's solution; and</li> <li>Correctly records it in the compass record book and the ship's log.</li> </ol>
1.9.B  Determine course to steer by magnetic compass	Plan and conduct a coastal passage and determine position	Compasses  Knowledge of the errors and corrections of magnetic compasses	On a vessel, in a navigation laboratory, or on a simulator, 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 $\pm$ 1.0° of the assessor's solution.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
1.9.C  Position fix by magnetic compass bearings	Plan and conduct a coastal passage and determine position	Compasses  Knowledge of the errors and corrections of magnetic compasses	On a vessel, in a navigation laboratory, or on a simulator, 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.	<ol> <li>Correctly applies compass error to the magnetic compass bearings; and</li> <li>Determines the objects' position to within ± 1.0° of the assessor's solution.</li> </ol>
Steering gear test	Plan and- conduct a- coastal passage- and determine- position-	Automatic pilot  Knowledge of automatic pilot systems and procedures; change over from manual to automatic control and vice versa; adjustment of controls for optimum performance	On a vessel underway or on a simulator,	the candidate conducts the pre-departure test of the vessel's steering gear.	<ol> <li>Turns on the steering control system;</li> <li>Aligns the steering gyro-repeater with the master o-compass (if fitted);</li> <li>Tests the controls for switching pumps and motors between the port and starboard steering systems after the required warm-up period; and.</li> <li>Tests the steering systems:         <ul> <li>When the control is switched to hand steering, the rudder is tested throughout its full range of motion; and.</li> <li>When the control is switched to non-follow-up (if fitted), the rudder is tested.</li> </ul> </li> </ol>

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Set weather controls	Plan and conduct a coastal passage and determine position	Automatic pilot Knowledge of automatic pilot systems and procedures; 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 controls in accordance with the manufacturer's recommendations for the prevailing sea conditions for the area transited or simulated.
Change from auto pilot to hand steering	Plan and conduct a coastal passage and determine position	Automatic pilot Knowledge of automatic pilot systems and procedures; change-over from manual to automatic control and vice versa; adjustment of controls for optimum performance	On a vessel or in a- laboratory, when asked- by a Qualified- Assessor to describe- procedures to change- the steering mode from- auto pilot to hand- steering.	the candidate describes how to change the steering mode from auto pilot to hand steering.	<ol> <li>The candidate's description includes:</li> <li>Repeating the order;</li> <li>Switching the steering mode from auto pilot to hand;</li> <li>Testing that the new steering mode is responding; and</li> <li>Stating: "She's in hand steering."</li> </ol>
1.10.D Change from hand steering to auto pilot	Plan and conduct a coastal passage and determine position	Automatic pilot  Knowledge of automatic pilot systems and procedures; change-over from manual to automatic control and vice versa; adjustment of controls for optimum performance	On a vessel or in a laboratory, when asked by a Qualified Assessor to describe procedures to change the steering mode from hand steering to auto pilot,	the candidate describes how to change the steering mode from hand steering to auto pilot.	<ol> <li>The candidate's description includes:</li> <li>Repeating the order;</li> <li>Putting the wheel amidships;</li> <li>Verifying that the course dialed into the auto pilot is the same as the course to be steered;</li> <li>Switching the steering mode from hand to auto pilot;</li> <li>Verifying that the auto pilot is responding properly; and</li> <li>Stating: "She's in auto pilot."</li> </ol>

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1.11.A  Read barometric pressure	Plan and conduct a coastal passage and determine position	Meteorology Ability to use and interpret information obtained from shipborne meteorological instruments	On a vessel or in a laboratory, and using a barometer,	the candidate determines the barometric pressure in millibars, inches, or millimeters of mercury.	The candidate:  1. Reads the barometer and applies the appropriate corrections;  Determines the barometric pressure to within 0.5 millibar, 0.02 inch, or 0.4 millimeter of the assessor's corrected reading.
1.12.A  Determine true wind speed and direction	Plan and conduct a coastal passage and determine position	Meteorology Ability to apply the meteorological information available	On a vessel underway using an anemometer, or in a laboratory and given anemometer reading and vessel course and speed,	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.
1.13.A  Determine expected weather conditions	Plan and conduct a coastal passage and determine position	Meteorology  Knowledge of the characteristics of the various weather systems, reporting procedures and recording systems	On a vessel or in a laboratory, and given 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.
2.1.A  Identify light configurations	Maintain a safe navigational watch	Watchkeeping Thorough knowledge of 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 9 of 10 vessels that have different light configurations.

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2.1.B  Identify day shapes	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 using laboratory equipment,	the candidate identifies vessels through observation of their required shapes.	The candidate correctly identifies the situation or occupation of 9 of 10 vessels that have different required shapes.
2.1.C  Identify sound signals	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 using laboratory equipment,	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 sound signals.
2.1.D  Determine risk of collision	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 a simulator, and 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 $\pm 2^{\circ}$ of the assessor's solution.

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2.1.E  Maneuver to avoid risk of collision - crossing	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 a simulator, when risk of collision with an approaching crossing vessel (from the candidate's starboard side at a relative bearing of between 30° and 112.5°) exists in good visibility in open	the candidate correctly applies the Rules of the Road and maneuvers the vessel to avoid collision, if required.	<ol> <li>The candidate:</li> <li>Determines the aspect of the approaching vessel;</li> <li>Identifies the situation as a crossing situation;</li> <li>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</li> <li>Makes speed or course changes that are large enough to be readily apparent to another vessel absorbing visually or by reader.</li> </ol>
2.1.F  Maneuver to avoid risk of collision - meeting	Maintain a safe navigational watch	Watchkeeping Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972	water,  On a vessel underway, or a simulator, when risk of collision with an approaching meeting vessel exists in good visibility in open water,	the candidate correctly applies the Rules of the Road and maneuvers the vessel to avoid collision, if required.	observing visually or by radar.  The candidate:  1. Determines the aspect of the approaching vessel;  2. Identifies the situation as a meeting situation;  3. Takes positive action in ample time in accordance with the Steering and Sailing Rules to achieve a CPA of at least 1.0 nm; and  4. Makes speed or course changes that are large enough to be readily apparent to another vessel observing visually or by radar.

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2.1.G  Maneuver to avoid risk of collision - overtaking	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 a simulator, when risk of collision with an approaching overtaking vessel exists in good visibility in open water,	the candidate correctly applies the Rules of the Road and maneuvers the vessel to avoid collision, if required.	<ol> <li>The candidate:</li> <li>Determines the aspect of the approaching vessel;</li> <li>Identifies the situation as an overtaking situation;</li> <li>Attempts VHF communications with the overtaking vessel;</li> <li>Sounds the danger signal, if required by the rules;</li> <li>Takes positive action in ample time in accordance with the Steering and Sailing Rules to achieve a CPA of at least 0.5 nm; and</li> <li>Makes speed or course changes large enough to be readily apparent to another vessel observing visually or by radar.</li> </ol>

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2.2.A	Maintain a safe	Watchkeeping	On a vessel underway	the candidate properly	The candidate:
Watch relief	navigational watch	Knowledge of content	at sea,	relieves the watch in accordance with	1. Reads the standing orders and/or night orders;
		of the Principles to be observed in keeping a navigational watch		STCW Code Section A-VIII/2, Part 3-1, Paragraphs 21 and 22.	<ol> <li>Determines and compares the vessel's position, course, and speed with the DR position and track;</li> </ol>
					3. Notes the position of the next charted way-point;
					4. Verifies the identities of critical aids to navigation in sight;
					5. Determines tides and current as necessary;
					6. Checks and properly tunes the radar and/or ARPA, if fitted;
					7. Checks any targets displayed on the radar or ARPA, if fitted;
					8. Checks the heading by magnetic compass;
					9. Determines the navigational hazards likely to be encountered during the watch;
					10. Determines the possible effect of list, trim, water density, and squat on underkeel clearance;
					11. Ensures that he/she receives courses, traffic, weather and any special instructions from the officer being relieved; and
					12. Tells the officer being relieved that he or she is relieved.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.B  Keep a safe navigation watch	Maintain a safe navigational watch	Watchkeeping Knowledge of content of the Principles to be observed in keeping a navigational watch	On a vessel underway at sea,	the candidate properly keeps a safe and environmentally sound navigational watch in accordance with STCW Code Section A-VIII/2, Part 3-1, Paragraphs 23 to 50.	<ol> <li>The candidate ensures that:         <ol> <li>The voyage plan is closely and continuously monitored;</li> <li>A proper lookout is maintained by all available means;</li> <li>A safe speed is maintained throughout the watch period;</li> <li>Position, course, and speed are checked at frequent intervals;</li> <li>The steering mode selected is appropriate to the area transited;</li> <li>Underkeel clearance is suitable for the draft of the vessel at all times;</li> <li>Course changes are made in accordance with the voyage plan;</li> <li>The vessel's position is fixed and plotted on an appropriate chart at intervals suitable to the vessel's speed and the area being transited;</li> </ol> </li> <li>The identities of critical aids to navigation in sight are determined;</li> <li>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;</li> <li>Radio equipment is frequently checked and found to be functioning properly;</li></ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.B					Continued from previous page
Continued  Keep a safe navigation watch					12. Risk of collision with approaching vessels is determined and early and substantial action, if required, is taken in accordance with COLREGS;
					13. The validity of the gyro input to all navigation equipment is verified (if fitted);
					14. Error of the magnetic compass and, if fitted, gyro-compass are determined by any available means and the error is logged;
					15. Magnetic variation and compass deviation are correctly applied to courses and bearings;
					16. The person steering is competent;
					17. Tide and current conditions for the watch period are determined in coastal and tidal waters;
					18. Set and drift are determined and applied to allow for set and drift;
					<ol> <li>The weather conditions on board the ship are correctly and timely recorded and reported as required;</li> </ol>
					20. Running lights are checked throughout the watch period;
					21. The Master is notified as directed by all Master's or standing orders;
					22. All relevant navigation information is used to identify protected marine habitats, areas and sanctuaries; and
					23. All required log entries are made.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.C Notify Master when appropriate	Maintain a safe navigational watch	Watchkeeping Thorough knowledge of the Principles to be observed in keeping a navigational watch	On a vessel underway at sea,	the candidate notifies the Master as instructed, and when in doubt of other vessel's intentions, or in any circumstances that affect the routine navigation of the vessel in accordance with STCW Code Section A-VIII/2, Part 3-1, Paragraph 40.	<ol> <li>The candidate notifies the Master immediately when the following occur:</li> <li>Restricted visibility is encountered or expected;</li> <li>Vessel traffic density or movement of other ships causes concern;</li> <li>Difficulty is experienced in maintaining course;</li> <li>Failure to sight land or a navigational mark, or to obtain soundings when expected;</li> <li>Aids to navigation are not in position or are displaying incorrect characteristics;</li> <li>Land or a navigational mark is sighted unexpectedly, or soundings change unexpectedly;</li> <li>The engines or their control systems, steering, or any essential navigational equipment fails, or alarms or indicators for these systems fail;</li> <li>Any radio equipment fails;</li> <li>Concerns arise in heavy weather about damage to the vessel or cargo;</li> <li>Any hazard to navigation that poses a threat to the vessel is noticed;</li> <li>Any doubt about the ship's safety or other emergency arises; or</li> <li>Any changes are made to the voyage plan.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.D	Maintain a safe	Watchkeeping	On a vessel at anchor,	the candidate properly	The candidate ensures that:
Keep a safe anchor watch	navigational watch	Thorough knowledge of the Principles to be		keeps a safe anchor watch in accordance with STCW Code	<ol> <li>Ship's position is determined and swing is plotted;</li> </ol>
		observed in keeping a navigational watch		Section A-VIII/2, Part 3-1, Paragraph 51.	2. Ship's position is frequently checked by visual and radar bearings and radar ranges from the same charted objects;
					3. GPS anchor alarm are established;
					4. Proper lookout is maintained;
					5. Periodic inspections are made;
					6. When necessary, a rating is posted at the anchor to carry out orders with respect to the anchor;
					7. Weather, tides, and sea state are monitored;
					8. The Master is notified immediately when the weather changes, visibility becomes restricted, or the anchor starts to drag;
					9. Engines are ready for immediate use, where conditions require (open roadsteads, strong winds, or current and poor holding ground); and
					10. All required lights, shapes, and sounds are properly shown /sounded.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.E Navigate in restricted visibility	Maintain a safe navigational watch	Watchkeeping Knowledge of content of the Principles to be observed in keeping a navigational watch	On a vessel underway or on a ship simulator, when visibility becomes restricted while underway,	the candidate recognizes the restricted visibility and takes appropriate action to navigate in restricted visibility in accordance with STCW Code Section A-VIII/2, Part 4-1, Paragraph 45.	<ol> <li>The candidate:         <ol> <li>Determines the restricted visibility;</li> <li>Notifies Master of restricted visibility;</li> <li>Switches to hand steering.</li> </ol> </li> <li>Posts a proper lookout and turns the running lights on;</li> <li>Adjusts the vessel's speed in accordance with Rule 6;</li> <li>Sounds the required sound signals;</li> <li>Sets the radar and/or ARPA on the appropriate scale to scan at long range for other vessels; and</li> <li>Plots all approaching targets on the radar or ARPA, if fitted.</li> <li>Uses radar or ARPA, if fitted, to obtain early warning of risk of collision and to determine the speed and direction of relative motion.</li> </ol>
2.2.F Turn over a watch	Maintain a safe navigational watch	Watchkeeping  Thorough knowledge of the Principles to be observed in keeping a navigational watch	On a vessel underway at sea or on a simulator,	the candidate properly turns the watch over.	<ol> <li>The candidate ensures that:</li> <li>A DR position is plotted on the chart in use for the end of the watch;</li> <li>The ship's position is determined and plotted by all means appropriate to the area being transited;</li> <li>Required weather data is read and recorded in the vessel log;         Continued on next page     </li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
2.2.F					Continued from previous page
Continued Turn over a					4. The heading of the magnetic compass is checked and recorded;
watch					5. The movement of all vessel traffic is checked by visual and electronic means immediately before being relieved;
					6. The vessel's course and speed, posting of special lookouts, steering mode in use, and weather and visibility are relayed to the relieving officer;
					7. Any special instructions regarding occurrences during the past watch, or which are expected during the next watch, are related;
					8. All relevant information concerning vessels in sight, or on the radar or ARPA, 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;
					<ol> <li>If the Master or pilot has the con, details concerning delegated responsibilities are relayed; and</li> </ol>
					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	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard		
2.3.A	Maintain a safe- navigational- watch-	Watchkeeping  Use of routing in- accordance with the General Provisions on Ships' Routing	This KUP is satisfied if the candidate has successfully completed Assessment 1.4.B.				
2.3.B	Maintain a safe navigational watch	Watchkeeping General Provisions on Ships' Routing	This KUP is satisfied if the candidate has successfully completed Assessment 1.4.C.				
( <del>2.4.A-</del> )	Maintain a safe- navigational- watch	Watchkeeping The use of reporting in- accordance with the General Principles for Ship Reporting Systems and with VTS- procedures	This KUP is satisfied if the candidate has successfully completed Assessment 1.5.A.				
3.1.A Safety of passengers in emergency situations	Respond to emergencies	Emergency procedures  Precautions for the protection and safety of passengers in emergency situations	On a vessel or in a laboratory, when asked by a Qualified Assessor to describe the precautions for the protection and safety of passengers in emergency situations specified 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(s).		

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.2.A Initial damage assessment and control	Respond to emergencies	Emergency procedures Initial action to be taken following a collision or a grounding; initial damage assessment and control	On a vessel or in a laboratory, when asked by a Qualified Assessor to describe actions to be taken following a collision or a grounding,	the candidate describes the initial action to be taken following a collision or grounding.	The candidate's description is appropriate for the described situation and includes initial damage assessment and control.
3.2.B Actions following a collision	Respond to emergencies	Emergency procedures Initial action to be taken following a collision or a grounding; initial damage assessment and control	On a vessel, or on a simulator, during a simulation of the vessel after a collision,	the candidate gives the proper commands to maximize the safety of crew and vessel.	<ol> <li>The candidate's commands include:</li> <li>Assessing damage and determines if vessel has lost watertight integrity;</li> <li>Determining the ship's stability and hull stresses;</li> <li>Checking for injuries to personnel;</li> <li>Taking steps to prevent the progressive flooding of spaces;</li> <li>Determining if threat of oil pollution exists;</li> <li>Maintaining communication with other vessel and renders assistance if possible;</li> <li>Monitoring the weather;</li> <li>Maneuvering the vessel to minimize the effect of further damage; and</li> <li>Determining the damage stability condition and "danger angle" for launching survival craft before listing 15°.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
Actions- following a- grounding-	Respond to emergencies	Emergency procedures  Initial action to betaken following a collision or a grounding; initial damage assessment and control	On a vessel, or on a-simulator, during a-simulation of the-vessel after a-grounding,	the candidate orders the appropriate steps to minimize grounding damage.	<ol> <li>The candidate's orders include:         <ol> <li>All watertight doors be closed, the hull bechecked, the bilges and tanks be sounded, and all spaces below the waterline be visually inspected where possible;</li> <li>The vessel be anchored in order to hold it until the grounding force is calculated and the float plan is complete;</li> <li>Ballast and fuel be transferred as necessary;</li> <li>Communications with the engine room be established and the sea suction be switched if necessary;</li> <li>The type of bottom on which the vessel grounded is determined; and</li> </ol> </li> <li>The threat of oil pollution be determined.</li> </ol>
3.3.A-  Emergency- steering  Master-	Respond to- emergencies	Emergency procedures, including emergency steering.	On a vessel at sea, or on a simulator, during a simulation of a steering casualty that cannot be corrected by switching steering motors,	the candidate gives the proper commands to operate the emergency steering system.	<ol> <li>The steering motor be switched to the motor not in use;</li> <li>Crewmen man the alternate steering location, if appropriate;</li> <li>Establishing communications with the alternate steering location, as appropriate;</li> <li>Steering control be switched from the bridge to the alternate steering location; and</li> <li>Appropriate helm orders be followed and courses steered.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
3.4.A	Respond to	Emergency procedures,	On a vessel at sea or	the candidate gives the	The candidate's commands include:
Emergency towing	emergencies	including arrangements for towing and for being taken in tow	on a simulator, during a drill simulation of an engine casualty,	proper commands to prepare the vessel for emergency towing.	Identifying the available equipment/gear to be used for emergency towing;
Master		overing tunion and to	ongo outdainty,	chargency to mag	2. Making sure the chain will not pay out until the towing vessel requests additional chain; and
					3. Actions for getting underway under tow. (Secure rudder dead center, close watertight doors, hatches and vents, etc.).
3.5.A	Respond to	Emergency procedures,	On a ship at sea or in a	the candidate	The candidate:
Man	emergencies	including rescuing persons from the sea	simulator, during a drill, upon receiving	immediately maneuvers for the	1. Gives appropriate maneuvering commands;
overboard		persons from the sea	notification of a man	fastest recovery of	2. Sounds the MOB signal;
Master			overboard (MOB) from your own vessel,	person in the water, and gives the commands to launch a	<ol> <li>Simulates releasing a lighted buoy and/or other appropriate lifesaving equipment;</li> </ol>
				rescue boat.	4. Marks the ship's position on ARPA and/or GPS (if fitted);
					<ol><li>Simulates a "Mayday" call on VHF notifying any vessels in vicinity of the MOB;</li></ol>
					6. Completes the recovery maneuver; and
					7. States the rescue boat, if so equipped, would be prepared for launch.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
Assisting a vessel in distress  Master	Respond to- emergencies	Emergency procedures, including assisting avessel in distress	On a vessel or in a laboratory, when asked by a Qualified Assessor to describe procedures for assisting a ship or aircraft in distress,	the candidate appropriately describes procedures and actions to assist vessels and aircraft in distress.	<ul> <li>The candidate's description includes: <ul> <li>Reporting systems, such as:</li> <li>a Preparing departure, arrival, and daily reports;</li> <li>b Actions to be taken when instructed to assist; and</li> <li>c Actions to be taken to request assistance;</li> </ul> </li> <li>2 Emergency towing to prevent a ship from grounding on a lee shore by other than a salvage tug;</li> <li>3 Medical emergency communications;</li> <li>4 Contacting contracted doctors ashore;</li> <li>5 Medical assistance from nearby ships with doctors aboard;</li> <li>6 Taking aboard survivors of ship and aircraft casualties; and</li> <li>7 Relaying sea and weather conditions to aircraft needing assistance; and relaying navigational information to aircraft and ships needing assistance.</li> </ul>
3.7.A Emergencies in port Master	Respond to emergencies	Emergency procedures, including appreciation of the action to be taken when emergencies arise in port	On a vessel or in a laboratory, when asked by a Qualified Assessor to describes the procedures to be followed for responding to specific emergencies which arise in port,	the candidate describes the procedures to be followed for responding to the emergencies.	The candidate's description is appropriate for the described situation.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
4.1.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 a vessel or in a laboratory, when asked by a Qualified Assessor to describe the procedures for search and rescue contained in the IAMSAR Manual,	the candidate describes the coordination of a search and rescue.	<ol> <li>The candidate's description includes:</li> <li>Establishing communication methods and message texts to be used in search patterns in accordance with IAMSAR;</li> <li>Determining the most probable search area by calculating:         <ol> <li>The target probability area when the intended course of the target is known; and</li> <li>The set and drift of a life raft using a set and drift graph of approximate drift values;</li> </ol> </li> <li>Determining the appropriate search pattern; and</li> <li>Coordinating with at least one other vessel in the search pattern.</li> </ol>
5.1.A Course change of more than 45°	Maneuver the ship and operate small ship power plants	Ship maneuvering and handling  Knowledge of factors affecting safe maneuvering and handling	On a vessel underway or in a simulator,	the candidate turns the vessel left or right more than 45° from the original heading.	The candidate turns left or right more than 45° from the original heading and steadies on the new course without overshooting the course by more than 10°.
5.1.B Emergency stop	Maneuver the ship and operate small ship power plants	Ship maneuvering and handling  Knowledge of factors affecting safe maneuvering and handling	On a vessel underway or in a simulator, proceeding at a speed of at least half-ahead,	the candidate demonstrates an emergency stop.	The candidate stops the vessel without deviating from the original course by more than 20° within the safe operating limits of the vessel's propulsion system.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
5.1.C Dock vessel	Maneuver the ship and operate small ship power plants	Ship maneuvering and handling  Knowledge of factors affecting safe maneuvering and handling	On a vessel underway or in a simulator, in clear visibility, with a wind speed of less than 15 knots and a current of less than 3 knots,	the candidate demonstrates docking a vessel to a pier.	<ol> <li>The candidate:</li> <li>Plans the operation by determining:         <ol> <li>Depth of water at the berth for the state of the tide;</li> <li>Strength and direction of the current for the route to the berth and at berth;</li> <li>Direction and velocity of the wind; and d. Appropriate approach to the berth;</li> </ol> </li> <li>Within a safe distance, the vessel is positioned appropriately at approaching at a safe speed and ready to be secured to the dock; and</li> <li>All lines are made fast and the vessel lays alongside next to the pier with no movement.</li> </ol>
5.2.A Fresh water systems	Maneuver the ship and operate small ship power plants	Ship maneuvering and handling  The operation of small ship power plants and auxiliaries	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the fresh water systems,	the candidate describes freshwater systems.	The candidate's description includes:  1. Treatment of fresh water for drinking; and  2. The vessel's domestic-water system.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
5.2.B- Principles of steering gear	Maneuver the- ship and operate- small ship- power plants	Ship maneuvering and handling.  The operation of small ship power plants and auxiliaries.	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the operating principles of steering gear,	the candidate describes the operating principles of steering gear.	The candidate's describes the operation of steering gear, in generally accepted engineering terms, including:  1. Variable delivery hydraulic pumps;  2. General design and operation including redundancy for:  a. Auxiliary steering;  b. Power supplies; and  c. Emergency control;  3. Control systems including telemotor control systems and electric control systems;  4. Local operation; and  5. Testing steering gear before sailing and during drills.
5.2.C Sewage treatment plants	Maneuver the ship and operate small ship power plants	Ship maneuvering and handling  The operation of small ship power plants and auxiliaries	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the operating principles of sewage treatment plants,	the candidate describes the operating principles of sewage treatment plants.	The candidate describes the operation of shipboard sewage-handling equipment, in generally accepted engineering terms, including:  1. U. S. regulations and International Conventions:  a. MARPOL Annex IV;  b. Federal Water Pollution Control Act; and c. 33 CFR 159;  2. Operation of a chemical-treatment plant; and  3. Operation of a biological-sewage treatment plant.

Task No./Name	STCW- Competence-	Knowledge, Understanding, and Proficiency	Performance-Condition	Performance-Behavior-	Performance Standard
5.2.D-) (Deck-) machinery-	Maneuver the ship and operate small ship power plants	(Ship maneuvering and handling) (The operation of small-ship power plants and auxiliaries)	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the operating principles of deck machinery,	the candidate describes the operating principles of deck machinery.	The candidate describes the operation of deck- machinery, in generally accepted engineering- terms, including:  1. Anchor windlasses, including:  a. Capabilities and limitations;  b. Gearing; and  c. Redundant arrangements;  2. Winches, including:  a. Spooling devices, including advantages- and disadvantages;  b. Safe working load and operating- characteristics;  c. Self tensioning, including advantages and disadvantages; and  d. Advantages and disadvantages of different drive systems; and-  3. Lubrication and maintenance of deck- machinery.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
5.2.E Fuel consumption Master	Maneuver the ship and operate small ship power plants	Ship maneuvering and handling  The operation of small ship power plants and auxiliaries	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe factors affecting fuel consumption,	the candidate describes the principles of fuel consumption.	<ol> <li>The candidate describes fuel consumption, in proper engineering terms, as a function of:</li> <li>Displacement;</li> <li>Distance;</li> <li>Speed;</li> <li>Sea state;</li> <li>Hull condition;</li> <li>Propeller condition, if applicable;</li> <li>Calculating, when given data from past performances: daily consumption at service speed;</li> <li>Fuel required for a voyage;</li> <li>Speed for a specific consumption on a daily consumption basis; and</li> <li>Speed for a specific consumption on a voyage consumption basis.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
5.3.A	Maneuver the	Ship maneuvering and	On a vessel underway	the candidate	The candidate anchors the vessel as follows:
Anchor the	ship and operate small ship	handling	or in a full mission simulator, in clear	demonstrates anchoring the vessel.	1. Planning: The following are determined:
vessel	power plants	Proper procedures for anchoring and mooring	visibility, with a wind	anchoring the vesser.	a. Depth of water;
		anchoring and mooring	speed of less than		b. Type of bottom;
			15 knots and a current of less than 3 knots,		c. Wind and current;
			or less than 5 knots,		d. Bottom obstructions;
					e. Room to swing;
					f. Place to anchor; and
					g. Courses and maneuvers to the anchor site;
					2. Approach: The ship does not pass to windward or up current of any anchored vessel or hazard to navigation;
					3. Placement:
					a. The site is approached slowly;
					b. 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
					<ul> <li>d. The anchor is correctly dropped for the depth of water;</li> </ul>
					4. Laying out:
					a. The ship is backed slowly; and
					<ul> <li>b. An appropriate length of chain is paid out slowly; and</li> </ul>
					5. Fetching up: The vessel is allowed to fetch up on the chain.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
6.1.A  Cargo handling, stowage, and securing	Monitor the loading, stowage, securing and unloading of cargoes and their care during the voyage	Cargo handling, stowage and securing  Knowledge of safe handling, stowage and securing of cargoes, including dangerous, hazardous and harmful cargoes, and their effect on the safety of life and of the ship	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the handling, stowage and securing of cargo,	the candidate describes the safe handling, stowage, and securing of cargoes, including dangerous, hazardous, and harmful cargoes, and their effect on the safety of life and of the ship.	The candidate's description includes the handling of dangerous, hazardous and harmful cargoes and compliance with international regulations and recognized standards and codes of safe practice.
6.1.B-  Carriage of dangerous cargo	Monitor the loading, stowage, securing and unloading of cargoes and their care during the voyage	Cargo handling, stowage and securing Use of the International Maritime Dangerous Goods (IMDG) Code	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the proper carriage of dangerous cargoes,	the candidate describes the safe carriage of dangerous cargoes.	The describes the basic concepts used in the loading of packaged dangerous goods, including:  1. The following from the IMDG Code:  a. labeling and placarding and stowage segregation of dangerous goods; and  b. packaged form;  2. Reporting of incidents involving dangerous goods; and  3. Stowage requirements in Chapter 7.1 of the IMDG Code.
7.1.A  Precautions to prevent pollution of the marine environment	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 by a Qualified Assessor to describe precautions to be taken to prevent pollution of the marine environment,	the candidate describes appropriate procedures.	<ol> <li>The candidate description includes:</li> <li>Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements are fully observed;</li> <li>Importance of proactive measures to protect the marine environment; and</li> <li>Actions to ensure that a positive environmental reputation is maintained.</li> </ol>

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
7.2.A  Anti-pollution procedures and associated equipment	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 by a Qualified Assessor to describe anti-pollution procedures and associated equipment	the candidate describes appropriate pollution prevention procedures and equipment.	<ol> <li>The candidate description includes:</li> <li>Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements are fully observed; and</li> <li>Actions to ensure that a positive environmental reputation is maintained.</li> </ol>
8.1.A  Determine stability data	Maintain- seaworthiness of the ship-	Ship stability  Working knowledge and application of stability, trim and stress tables, diagrams and stress calculating equipment	On a vessel, or in a laboratory, and given stability, trim and stress tables, and diagrams, and asked by a Qualified Assessor to determine stability datafor various conditions of loading,	the candidate determines stability data for the vessel.	The stability conditions comply with the IMO- intact stability criteria under all conditions of loading.
8.2.A  Partial loss of intact buoyancy	Maintain seaworthiness of the ship	Ship stability Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the actions to be taken for a partial loss of intact buoyancy,	the candidate describes actions to take for a partial loss of intact buoyancy.	The candidate describes appropriate actions to ensure and maintain the watertight integrity of the vessel that are in accordance with accepted practices.
8.3.A Watertight integrity	Maintain seaworthiness of the ship	Ship stability Understanding of the fundamentals of watertight integrity	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe principles of watertight integrity,	the candidate describes the fundamentals of watertight integrity.	The candidate describes appropriate actions to ensure and maintain the watertight integrity of the vessel that are in accordance with accepted practices ensuring correct use of watertight bulkheads, doors, and closures to maintain watertight integrity.

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard
8.4.A Vessel construction	Maintain seaworthiness of the ship	Ship stability  General knowledge of the principal structural members of a ship and the proper names for the various parts	On a vessel, or in a laboratory, when asked by a Qualified Assessor to describe the principal structural members of a vessel,	the candidate describes the principal structure members of a vessel and the proper names for the various parts.	The candidate correctly identifies and describes the vessel structural members.
9.1.A Organize fire drills- Course-	Prevent, control and fight fires on board	Fire prevention and fire-fighting appliances  Ability to organize fire drills			completes the approved or accepted training in- CFR 11.317(a)(3)(ii) and 46 CFR 11.321(a)(3)(ii).
9.2.A Classes and chemistry of fire- Course-	Prevent, control and fight fires on board	Fire prevention and fire fighting appliances  Knowledge of classes and chemistry of fire			completes the approved or accepted training in CFR-11.317(a)(3)(ii) and 46 CFR-11.321(a)(3)(ii).
9.3.A  Fire-fighting- systems-  Course-	Prevent, control and fight fires on board	Fire prevention and fire-fighting appliances  Knowledge of fire-fighting systems			completes the approved or accepted training in- CFR 11.317(a)(3)(ii) and 46 CFR 11.321(a)(3)(ii).
9.4.A  Actions in the event of fire  Course	Prevent, control and fight fires on board	Fire prevention and fire-fighting appliances  Knowledge of action to be taken in the event of fire, including fires involving oil systems			completes the approved or accepted training in- CFR-11.317(a)(3)(ii) and 46 CFR-11.321(a)(3)(ii).

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard		
10.1.A Life-saving appliances Course	Operate life-saving appliances	Life-saving Ability to organize abandon ship drills and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio life-saving appliances, satellite EPIRBs, SARTs, immersion suits and thermal protective aids	This KUP is satisfied if the candidate successfully completes the approved or accepted training for <i>Proficiency in Survival Craft and Rescue Boats, other than Fast Rescue Boats</i> specified in 46 CFR 11.317(a)(3)(iii) and 46 CFR 11.321(a)(3)(iii).				
11.1.A Medical first aid Course	Apply medical first aid on board ship	Medical aid  Practical application of medical guides and advice by radio, including the ability to take effective action based on such knowledge in the case of accidents or illnesses that are likely to occur on board ship	This KUP is satisfied if the candidate successfully completes the approved or accepted <i>Medical First Aid Provider</i> training specified in 46 CFR 11.317(a)(3)(i) and 46 CFR 11.321(a)(3)(i).				

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard	
12.1.A International maritime conventions	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 by a Qualified Assessor to describe relevant IMO conventions concerning safety of life at sea, security and protection of the marine environment,	the candidate describes legislative requirements relating to safety of life at sea, security, and protection of the marine environment.	<ol> <li>The candidate describes fuel consumption, in proper engineering terms, as a function of:</li> <li>International Convention for the Safety of Life at Sea (SOLAS);</li> <li>International Ship and Port Facility Security Code (ISPS);</li> <li>International Safety Management Code (ISM);</li> <li>International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978, as amended (STCW); and</li> <li>MARPOL 73/78 and its Annexes.</li> </ol>	
13.1.A  Personal survival techniques  Course	Contribute to the safety of personnel and ship	Knowledge of personal survival techniques	This KUP is satisfied if the candidate successfully completes approved or accepted <i>Basic Training</i> or presents evidence of maintaining the standards of competence in <i>Basic Training</i> as specified in 46 CFR 11.302.			
Fire prevention and fire fighting  Course	Contribute to the safety of personnel and ship	Knowledge of fire prevention and ability to fight and extinguish fires	This KUP is satisfied if the candidate successfully completes approved or accepted <i>Basic Training</i> or presents evidence of maintaining the standards of competence in <i>Basic Training</i> as specified in 46 CFR 11.302.			

Task No./Name	STCW Competence	Knowledge, Understanding, and Proficiency	Performance Condition	Performance Behavior	Performance Standard	
13.3.A Elementary first aid Course	Contribute to the safety of personnel and ship	Knowledge of elementary first aid	This KUP is satisfied if the candidate successfully completes approved or accepted <i>Basic Training</i> or presents evidence of maintaining the standards of competence in <i>Basic Training</i> as specified in 46 CFR 11.302.			
13.4.A Personal safety and social responsibilities <i>Course</i>	Contribute to the safety of personnel and ship	Knowledge of personal safety and social responsibilities	This KUP is satisfied if the candidate successfully completes approved or accepted <i>Basic Training</i> or presents evidence of maintaining the standards of competence in <i>Basic Training</i> as specified in 46 CFR 11.302.			