

May 21, 2010

Dear Mariner:

Although MITAGS has made every effort to include the U.S. Coast Guard (USCG) required assessments within our STCW-95 Chief Mate/Master (CMM) curriculum, certain assessments must be completed at sea. These "shipboard" assessments are highlighted in yellow or blue and listed under the *"Where to Complete Assessment"* column on the next page. As an added convenience, copies of the Control Sheets associated with USCG National Maritime Center (NMC) Policy Letter 04-02 are also included in this document.

MITAGS recommends that you download a complete copy of USCG NMC Policy Letter 04-02 and the "Guide for Conducting Onboard Assessments." Both of these documents, and additional information on STCW-95, can be found on the NMC website at [http://www.uscg.mil/nmc/mmic\\_policy.asp](http://www.uscg.mil/nmc/mmic_policy.asp).

Due to changes being implemented by the National Maritime Center, we recommend that contact your local USCG Regional Examination Center or check the NMC website for the most current information regarding Chief Mate/Master upgrade. Go to <http://www.uscg.mil/nmc/upgrading.asp> for the qualifications that you are required to meet which will include physical, drug testing, oath, sea service, training, practical demonstration, and exams.

Prior to the completion of your MITAGS Chief Mate/Master courses, please check with the Academic Coordinator or Business Development Manager to see if there have been any "last minute" regulatory changes. You may obtain the latest MITAGS telephone numbers and e-mail addresses by visiting the "Contact Us" section of the MITAGS website.

Good luck on your upgrade endeavor. The staff members at MITAGS are here to do everything possible to assist you in this effort.

Sincerely,



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Executive Director

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GMP/df  
Attachment

### Chief Mate and Master Upgrade Assessments Required by USCG NMC Policy Letter 04-02

**ATTENTION: This list may not apply if you did not take ALL of your CMM Courses at MITAGS**

Count	Task	Control Sheet No.	Where to Complete Assessment
1	Create a Navigation Plan	M-1-1A	Advanced Navigation=ECDIS + VPEN Within 1 Year
2	Position Reporting System	M-1-1B	Advanced Navigation=ECDIS + VPEN Within 1 Year
3	Latitude by Ex-Meridian (sun)	M-1-2A	Shipboard
4	Latitude by Meridian Transit (Other than Sun)	M-1-2B	Shipboard
5	Star Identification	M-1-2C	Shipboard
6	Star Selection	M-1-2D	Shipboard
7	LOP From High Altitude Sight	M-1-2E	Shipboard
8	Celestial Fix	M-1-2F	Shipboard
9	Great Circle Sailing	M-1-2G	Advanced Navigation=ECDIS + VPEN Within 1 Year
10	Mercator Sailing – Course and Distance	M-1-2H	Advanced Navigation=ECDIS + VPEN Within 1 Year
11	Mercator Sailing - Final Pos.	M-1-2I	Advanced Navigation=ECDIS + VPEN Within 1 Year
12	Position Fix by Terrestrial Bearings	M-1-3A	Shipboard
13	GPS-Waypoint Entry	M-1-4A	Shipboard
14	Determine Magnetic Compass Deviation	M-2-1A	Advanced Navigation=ECDIS + VPEN Within 1 Year
15	Construct a Deviation Table	M-2-1B	Shipboard
16	Amplitude of the Sun	M-2-1C	Shipboard
17	Apply Compass Error to Magnetic Course	M-2-1D	Advanced Navigation=ECDIS + VPEN Within 1 Year
18	Apply Compass Error to Magnetic Bearings	M-2-1E	Advanced Navigation=ECDIS + VPEN Within 1 Year
19	Apply Compass Error to Gyrocompass Course	M-2-1F	Advanced Navigation=ECDIS + VPEN Within 1 Year
20	Coordinate Search and Rescue Operations	M-3-1A	Advanced Shiphandling
21	Identify Vessels by Light Characteristics	M-4-1A	Advanced Watchkeeping
22	Identify Vessels by Day Shapes	M-4-1B	Advanced Watchkeeping
23	Apply Rules of the Road to avoid a collision	M-4-1C	*Advanced Watchkeeping after May 25, 2009
24	Determine Risk of Collision	M-4-2A	Shipboard
25	Operate ARPA Controls & Functions	M-5-1A	Shipboard
26	Determine Target Data	M-5-1B	Shipboard
27	Parallel Indexing	M-5-1C	Shipboard
28	Bridge Resource Management	M-5-1D	*Advanced Watchkeeping after May 25, 2009
29	Weather Forecast (24 hours)	M-6-1A	Advanced Meteorology
30	Identify Weather Fronts	M-6-2A	Advanced Meteorology
31	Calculate Height of Tide	M-6-3A	Advanced Navigation=ECDIS + VPEN Within 1 Year
32	Calculate Tidal Current	M-6-3B	Advanced Navigation=ECDIS + VPEN Within 1 Year
33	Calculate Time of High Tide	M-6-3C	Advanced Navigation=ECDIS + VPEN Within 1 Year
34	Actions After Grounding	M-7-1A	Advanced Shiphandling
35	Re-Floating a Grounded Ship	M-7-2A	Advanced Shiphandling
36	Prepare for Collision	M-7-3A	Advanced Shiphandling
37	Actions After a Collision	M-7-3B	Advanced Shiphandling
38	Emergency Steering	M-7-4A	Advanced Shiphandling
39	Emergency Towing	M-7-5A	Advanced Shiphandling
40	Maneuver to Embark/Disembark a Pilot	M-8-1A	Advanced Shiphandling
41	Transit Restricted Waters	M-8-2A	Advanced Shiphandling
42	Constant Rate Turn Techniques	M-8-3A	Advanced Shiphandling
43	Shallow Water Effects-Squat	M-8-4A	Advanced Shiphandling
44	Shallow Water Effects-Passing Vessels	M-8-5A	Advanced Shiphandling
45	Vessel Docking Starboard Side To	M-8-6A	Advanced Shiphandling
46	Vessel Docking Port Side to	M-8-6B	Advanced Shiphandling
47	Turn Vessel with Tug Assistance	M-8-7A	Advanced Shiphandling
48	Anchoring	M-8-8A	Advanced Shiphandling
49	Dragging Anchor	M-8-9A	Advanced Shiphandling
50	Determine GM-Arrival	M-9-1A	Advanced Stability
51	Determine GM-Flooded Engine Room	M-9-1B	Advanced Stability
52	Determine GM-Flooded Hatch	M-9-1C	Advanced Stability
53	Determine Sheering Forces and Bending Moment	M-9-1D	Advanced Stability

\*NOTE: Assessments M-4-1C & M-5-1D are not included the Advanced Watchkeeping course completed prior to May 25, 2009 and ,therefore, must be completed shipboard.

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO.** M-1-2A

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determination by celestial observation

**TASK:** Latitude by Ex-Meridian (Sun)

**PERFORMANCE CONDITION:** On a ship underway, with the sun and the horizon visible, and at least three minutes before or three minutes after the time of meridian passage over the meridian of the observer.

**PERFORMANCE BEHAVIOR:** Measure the altitude of the sun and calculate the latitude of the ship at meridian passage using the ex-meridian observation.

**PERFORMANCE STANDARD:**

The latitude calculated at meridian passage is within  $\pm .1$  nm of the assessor's position.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-1-2B**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determination by celestial observation

**TASK:** Latitude by Meridian Transit (Other Than Sun)

**PERFORMANCE CONDITION:** On a ship underway, with a celestial body other than the sun at upper transit and a clear horizon.

**PERFORMANCE BEHAVIOR:** Measure the altitude of the body as it crosses the meridian of the observer and calculate the latitude of the ship.

**PERFORMANCE STANDARD:**

The latitude calculated at meridian passage is within  $\pm .1$  nm of the assessor's position.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO.** M-1-2C

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determination by celestial observation

**TASK:** Star Identification

**PERFORMANCE CONDITION:** On a ship underway or in a navigational laboratory, given the times of observation, altitudes and azimuths of three unknown stars.

**PERFORMANCE BEHAVIOR:** Identify the three stars.

**PERFORMANCE STANDARD:**

Within 20 minutes, the stars are correctly identified.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-1-2D**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determination by celestial observation

**TASK:** Star Selection

**PERFORMANCE CONDITION:** On a ship underway or in a navigational laboratory, given the times of observation.

**PERFORMANCE BEHAVIOR:** Identify the best three stars or planets to obtain a fix.

**PERFORMANCE STANDARD:**

Within 20 minutes, the candidates selected three stars which:

1. Are the three brightest; and,
2. Have the greatest crossing angles between each other.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-1-2E**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determination by celestial observation

**TASK:** LOP From High Altitude Sight

**PERFORMANCE CONDITION:** On a ship underway or in a navigational laboratory, given the time of observation and measurement of a body at a high altitude.

**PERFORMANCE BEHAVIOR:** Plot the line of position of the ship at the time of the observation.

**PERFORMANCE STANDARD:**

1. Within 20 minutes, the intercept and azimuth is correctly determined; and,
2. The LOP is plotted within 2 miles of the ship's position at the time of the observation as determined by the GPS or other equally accurate means.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-1-2F**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determination by celestial observation

**TASK:** Celestial Fix

**PERFORMANCE CONDITION:** On a ship underway or in a navigational laboratory, given at least four intercepts and azimuths obtained from celestial sight reductions, and the times and assumed positions for each.

**PERFORMANCE BEHAVIOR:** Plot the ship's position at the time of the last observation.

**PERFORMANCE STANDARD:**

1. The position is plotted within 12 minutes; and,
2. The position is within  $\pm .1$  nm of the assessor's position.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-1-3A**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determined by terrestrial observations, including the ability to use appropriate charts, notices to mariners and other publications to assess the accuracy of the resulting position fix.

**TASK:** Position Fix by Terrestrial Bearings

**PERFORMANCE CONDITION:** On a ship underway, or a full mission ship 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.

**PERFORMANCE BEHAVIOR:** Determine the bearings of at least two charted objects and plot them on the chart in use.

**PERFORMANCE STANDARD:**

1. The position is within  $\pm .1$  nm of the assessor's position.
2. Crossing angles of bearings should be not less than  $30^\circ$  and not more than  $160^\circ$  between bearings.
3. The bearings of objects abeam or close to the beam are observed first.
4. The chart in use is the largest scale suitable for the waters being transited.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-1-4A**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine position and the accuracy of resultant position fix by any means

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Position determined by using modern electronic navigational aids, with specific knowledge of their operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing.

**TASK:** GPS – Waypoint Entry

**PERFORMANCE CONDITION:** On a ship underway, or a full mission ship simulator, or in a navigation laboratory, using a GPS receiver which meets IMO standards, and given a port of departure and a port of arrival at least 2,000 nm apart in a generally east west direction, with at least 3 legs, which include both rhumb line and great circle legs.

**PERFORMANCE BEHAVIOR:** Enter the waypoints and route for the voyage into the GPS.

**PERFORMANCE STANDARD:**

1. The way points are correctly determined entered, and saved;
2. The route is correctly entered and saved; and,
3. The great circle or rhumb line legs are correctly designated.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-2-1B**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine and allow for compass errors

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Ability to determine and allow for errors of the magnetic and gyro compasses

**TASK:** Construct a deviation table

**PERFORMANCE CONDITION:** On a ship underway or a full mission ship simulator, using navigational or natural terrestrial ranges, using only a magnetic compass, and a chart with variation.

**PERFORMANCE BEHAVIOR:** Construct a Deviation Table

**PERFORMANCE STANDARD:**

1. The candidate will swing the ship to a cardinal heading by the magnetic compass and compare the magnetic heading to the charted range or bearing;
2. The magnetic compass error is determined and properly labeled.
3. Variation is determined from the chart.
4. The deviation solution is  $\pm .5^\circ$  of the assessor's solution.
5. The deviation is correctly recorded in the compass record book and the ship's log.
6. The process is repeated every 15 degrees to the next cardinal heading by magnetic compass.
7. A deviation table is constructed for the  $90^\circ$  compass segment.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-2-1C**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Determine and allow for compass errors

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Ability to determine and allow for errors of the magnetic and gyro compasses

**TASK:** Amplitude of the Sun

**PERFORMANCE CONDITION:** On a ship underway, with the center of the sun on either the visible horizon or the celestial horizon.

**PERFORMANCE BEHAVIOR:** Measure the bearing of the sun.

**PERFORMANCE STANDARD:**

1. The bearing of the sun is read when the repeater is level.
2. The time of the reading noted.
3. The true bearing of the sun for the time of the reading is determined (if the bearing of the sun was taken on the visible horizon, the Table 28 correction is properly applied).
4. The gyrocompass bearing is compared to the true bearing and the gyro error is determined.
5. The solution is  $\pm 1^\circ$  of the assessor's solution.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-4-1C**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Establish watchkeeping arrangements and procedures

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Thorough knowledge of content, application and intent of the International Regulations for Preventing Collisions at Sea

**TASK:** Apply the Rules of the Road to Avoid Collision

**PERFORMANCE CONDITION:** On a ship underway, a full mission ship simulator, or using approved laboratory equipment, when risk of collision with an approaching meeting vessel exists in good visibility in the open ocean.

**PERFORMANCE BEHAVIOR:** Apply the rules of the road correctly and maneuver the vessel to avoid the collision, if required.

**PERFORMANCE STANDARD:**

1. The aspect of the approaching vessel was determined.
2. The situation was identified as a meeting situation.
3. Positive action in ample time was taken in accordance with the steering and sailing rules to achieve a CPA of at least 3 nm.
4. Speed or course changes were large enough to be readily apparent to another vessel observing visually or by radar.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-4-2A**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Establish watchkeeping arrangements and procedures

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** Thorough knowledge of the content, application and intent of the Principles to be observed in keeping a navigational watch -- Effective bridge teamwork procedures

**TASK:** Determine Risk of Collision

**PERFORMANCE CONDITION:** On a ship underway, a full mission ship simulator, or using approved laboratory equipment, and using a gyro-compass repeater and an azimuth circle, bearing circle, alidade, or other device for taking bearings, and a marine radar or ARPA (which meet IMO performance standards) set on the 12 mile scale and the targets more than 8 miles away.

**PERFORMANCE BEHAVIOR:** Determine if risk of collision exists with approaching meeting, crossing and overtaking vessels.

**PERFORMANCE STANDARD:**

1. Two visual bearings of an approaching vessel are taken using an azimuth circle, bearing circle or alidade to determine if the bearing to the approaching vessels is appreciably changing.
2. Each observation is within  $\pm 2^\circ$  of the assessor's bearing.
3. Two electronic bearings of an approaching vessel are taken on a radar or an ARPA to determine if the bearing to the approaching vessels are appreciably changing.
4. Each observation is within  $\pm 2^\circ$  of the assessor's bearing.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-5-1A**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Maintain safe navigation through the use of radar and ARPA and modern navigation systems to assist command decision-making

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** An appreciation of system errors and thorough understanding of the operational aspects of modern navigational systems, including radar and ARPA.

**TASK:** Operate ARPA Controls & Functions

**PERFORMANCE CONDITION:** On a radar/ARPA simulator that meets the standards of 33 CFR 164.38 and other applicable national and international performance standards.

**PERFORMANCE BEHAVIOR:** Operate the controls to accomplish the following tasks:

- set up and maintain the display;
- manually acquire targets; set CPA/TCPA limits;
- turn on past positions in all display modes;
- display true and relative vectors;
- vary vector length
- designate a dangerous target;
- put ARPA display in true, north up relative motion, and head up;
- the trail maneuver mode with both a speed change and a course change;
- obtain a range and bearing;
- activate the lost target alarm;
- silence the lost target alarm;
- cancel a single target;
- cancel all targets;
- ground stabilize the display;
- sea stabilize the display;
- draw a navigation line;
- set up an auto acquisition zone
- suppress auto acquisition in a certain area;
- turn auto acquisition off and on.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**PERFORMANCE STANDARD:**

1. The correct controls to accomplish the task are operated.
2. All controls are operated within 2 seconds.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-5-1B**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Maintain safe navigation through the use of radar and ARPA and modern navigation systems to assist command decision-making

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** An appreciation of system errors and thorough understanding of the operational aspects of modern navigational systems, including radar and ARPA.

**TASK:** Determine Target Data

**PERFORMANCE CONDITION:** On a radar/ARPA simulator that meets the standards of 33 CFR 164.38 and other applicable national and international performance standards, with 6 targets displayed on the 12 mile range scale, 3 of which have CPA's of less than 2 nm.

**PERFORMANCE BEHAVIOR:** Determine the direction and speed of relative motion, true course and speed, CPA and time to CPA for each target with a CPA of less than 2 nm.

**PERFORMANCE STANDARD:**

1. The student obtained the DRM solutions within 2 minutes of the start time and all solutions were within  $\pm 3^\circ$  of the assessor's solution;
2. The student obtained the SRM solutions within 3 minutes of the start time and all solutions were within  $\pm 2$  knots of the assessor's solution;
3. The student obtained the CPA solutions within 4 minutes and all solutions were within  $\pm 0.5$  nm of the assessor's solution; and,
4. The student obtained the TCPA solutions within 5 minutes and all solutions were within  $\pm 2$  minutes of the assessor's solution.
5. The student obtained the true course and speed of the 3 ships with CPA's of less than 2 nm within 6 minutes and all solutions were within  $\pm 2$  kts and  $\pm 3^\circ$  of the assessor's solution.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-5-1C**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Maintain safe navigation through the use of radar and ARPA and modern navigation systems to assist command decision-making

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** An appreciation of system errors and thorough understanding of the operational aspects of modern navigational systems, including radar and ARPA.

**TASK:** Parallel Indexing

**PERFORMANCE CONDITION:** On a radar/ARPA simulator that meets the standards of 33 CFR 164.38 and other applicable national and international performance standards, with multiple targets displayed on the 12 mile range scale, in congested coastal waters, while transiting a traffic separation scheme, in the presence of current, and with at least one course change of not less than 30°.

**PERFORMANCE BEHAVIOR:** Plan and execute a passage through the area of transit, using parallel index lines to monitor the ship's position.

**PERFORMANCE STANDARD:**

The candidate:

1. Constructs a parallel index line between the 2 nav marks and through the seaward edge of the known hazard to navigation or land mass;
2. Positions the VRM at a distance named by the assessor from the edge of the parallel index line;
3. Monitors the vessel's movement to determine if the edge of the VRM moves inside the parallel index line; and,
4. Obtains a VRM that does not drift more than 10 % of the VRM distance inside the parallel index line.
5. Observed all the requirements of COLREGS Rule 10.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	

**TABLE A-II/2 Performance Standards for Assessments of Competence  
Masters and Chief Mates on Ships of 3000 Gross Tonnage or More (ITC)**

**Control Sheet**

**ASSESSMENT NO. M-5-1D**

**FUNCTION:** Navigation at the Management Level

**COMPETENCE:** Maintain safe navigation through the use of radar and ARPA and modern navigation systems to assist command decision-making

**KNOWLEDGE, UNDERSTANDING & PROFICIENCY:** An appreciation of system errors and thorough understanding of the operational aspects of modern navigational systems, including radar and ARPA.

**TASK:** Bridge Resource Management

**PERFORMANCE CONDITION:** On a radar/ARPA simulator that meets the standards of 33 CFR 164.38 and other applicable national and international performance standards, with multiple targets displayed on the 12 mile range scale, in congested coastal waters, while transiting a traffic separation scheme, in the presence of current, and with a least one course change of not less than 30° in the route, and in reduced visibility.

**PERFORMANCE BEHAVIOR:** Plan and execute a passage through the area of transit, using the principles of bridge resource management.

**PERFORMANCE STANDARD:**

The candidate:

1. Assigns BRM roles;
2. Monitors the ship's progress;
3. Communicates clearly and effectively;
4. Controls passage for safe navigation and collision avoidance; and,
5. Ensures all team members use all navigational data available.

A ship's officer who signs below attests that he/she has met the requirements to qualify as a shipboard assessor.

_____	_____	_____
Mariner	SSN No.	Date
_____	_____	_____
Assessor (sign and print name)	License No.	MMD No.
_____	_____	
Position	Vessel or Training Course	