



# SHIP SAFETY BULLETIN

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**Subject: WATCHKEEPING MATE OF A FISHING VESSEL OF NOT MORE THAN 150 GROSS TONNAGE AND LESS THAN 24 METRES IN OVERALL LENGTH**

### Purpose

This bulletin describes Transport Canada’s new certificate of competency (CoC): *Watchkeeping Mate of a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length*. The certificate will allow its holder to be the person in charge of a navigational watch on a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length.

### Scope

This bulletin applies only to persons who have acquired the following sea service performing deck duties on one or more fishing vessels of at least 6 metres in overall length;

- (i) at least 6 months; or
- (ii) at least 3 months in an approved training program if the applicant has successfully completed the program.

and who wish to obtain the certificate, *Watchkeeping Mate of a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length*.

### Background

Unlike the *Crewing Regulations*, the new *Marine Personnel Regulations* (MPR) require masters of fishing vessels of less than 60 gross tonnage to hold a CoC in accordance with a schedule specified at section 212 (1) of the MPR.

#### Keywords:

1. Watchkeeping Officer
2. Fishing Vessel
3. 150 gross tonnage
4. *Marine Personnel Regulations*

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Owners of affected commercial vessels automatically receive Bulletins.

With the entry into force of the MPR, the master of a fishing vessel of at least 15 gross tonnage or at least 12 metres in overall length and of less than 60 gross tonnage is required to hold at least a:

- a) Certificate of Service as Master of a Fishing Vessel of less than 60 gross tonnage; or
- b) Fishing Master, Fourth Class CoC.

Even though the hours of rest requirements do not apply to fishing vessels of less than 100 gross tonnage, the MPR require vessels to have a second certified person to perform watchkeeping duties and radio watch duties on a voyage where the vessel does not return to port at night to allow for rest, since it is not possible for the master to be on watch at all times.

The fact that masters of fishing vessels of less than 60 gross tonnage and all persons in charge of the watch must now hold a CoC and a radio operator certificate is creating a huge shortage of qualified persons. Officers who have been acting as officer in charge of the watch for years, but who were not required by the previous regulations to hold a CoC, may not meet the new requirements for a certificate of service as master of a fishing vessel of less than 60 gross tonnage, if their sea service as master does not meet the MPR requirements.

In fact, the minimum certificate they can obtain is a Fishing Master, Fourth Class CoC, which is harder to qualify for than the certificate that the master of the same vessel might be holding.

That is why Transport Canada is introducing a new certificate that is more relevant for the watchkeeping officers on these vessels.

### **Transport Canada Policy**

Transport Canada Marine Safety will allow persons meeting the requirements described below to obtain a CoC that will allow its holder to be the person in charge of a navigational watch on a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length, in order to meet the deck watch requirements of the MPR, in cases where the length of the voyage makes it impossible for the master to be the only person in charge of the deck watch.

To obtain the *Watchkeeping Mate of a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length* certificate, a person must meet the following requirements:

- a) Acquire the following sea service performing deck duties on one or more fishing vessels of at least 6 metres in overall length;
  - (i) at least 6 months; or
  - (ii) at least 3 months in an approved training program if the applicant has successfully completed the program.

Note: Despite item a) (i), up to half the amount of an applicant's sea service performing deck duties required by that item, may include service on board one or more normal trading vessels of at least 6 m in overall length.

- b) Marine emergency duties with respect to basic safety (MED A1);
- c) Simulated Electronic Navigation (SEN) Limited;
- d) Marine Basic First Aid;
- e) Restricted Operator's Certificate (ROC-MC) issued under the *Radiocommunication Act*;
- f) Hold a valid medical certificate or a valid provisional medical certificate; and
- g) Pass examinations:
  - (i) Chartwork and Navigation Safety; and
  - (ii) Oral examination on general knowledge in seamanship and stability, after meeting the other requirements described above.

You can find the syllabuses for the Chartwork and Navigation Safety written examination and for the oral examination on general seamanship and stability in Annex 1 of this bulletin.

### **Validity and renewal**

The holder of this certificate may act as officer in charge of the watch on board a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length engaged on a:

- a) Limited contiguous waters voyage;
- b) Near coastal voyage, class 2; or
- c) Sheltered waters voyage.

The holder of this certificate may also act as master of a fishing vessel of up to 15 gross tonnage or not more than 12 metres in overall length engaged on a:

- a) Near coastal voyage, class 2; or
- b) Sheltered waters voyage.

The *Watchkeeping Mate of a fishing vessel of not more than 150 gross tonnage and less than 24 metres in overall length* CoC will be valid for five years from the date it is issued. You will find the renewal requirements in the MPR sections 106 and 111.

ANNEX 1

1. CHARTWORK AND NAVIGATION SAFETY:

(Written examination)

Subject	Knowledge Required	Estimated training time
<b>Competence:</b>	<b>Maintain a safe navigational watch</b>	
<p><u>Chart information:</u> Practical understanding of chart construction and knowledge of the information displayed on charts</p>	<p>Chart scales: Large and small scale charts; Factors affecting the reliability of charts; <u>Practical</u> working knowledge of Mercator projections and basic awareness of other chart projections. Practical understanding of information presented under the title-depth units, numbering and tidal references.</p>	<p>2 hours</p>
<p><u>Publications:</u> Practical knowledge of publications found in the wheelhouse of a fishing vessel ≤150 GRT</p>	<p>Ability to readily identify starboard, port lateral and bifurcation buoys, cardinal buoys and isolated danger buoys, as described in the Canadian Buoyage System. Ability to use the following publications to extract necessary information: Canadian Buoyage System, Chart #1, List of Lights Buoys and Fog Signals, Tide Tables, Radio Aids to Marine Navigation, Sailing Directions, Notices to Mariners. Use and purpose of Notices to Shipping.</p>	<p>5 hours</p>
<p><u>Chartwork:</u> Ability to determine the vessel's position and plot the position on the chart, and the ability to plot the true course between two positions. Record keeping.</p>	<p>Chartwork exercises: Ability to use parallel rulers and dividers. Ability to plot the vessel's position on the chart given the latitude and longitude, two true bearings, or a true bearing and a distance. Determining the latitude and longitude of a given position. Plot the vessel's true course between two given positions. Measuring distance from the chart. Time, distance and speed calculations. Practical understanding of 'Dead Reckoning' and factors affecting a vessel's progress. Gyro compass and errors. Understanding of the importance of keeping an up-to-date record of the vessel's movement.</p>	<p>21 hours</p>

Subject	Knowledge Required	Estimated training time
<b>Competence:</b>	<b>Maintain a safe navigational watch</b>	
<p><u>Chartwork - magnetic compass:</u> Practical understanding of magnetic variation and deviation.</p>	<p>Practical knowledge of magnetic variation and deviation, in determining compass error. Ability to determine the compass course to steer <u>when given</u> variation and deviation. Ability to determine the true course <u>when given</u> variation and deviation. Appreciation of the causes of magnetic deviation.</p>	<p>15 hours</p>
<p><u>Navigation safety:</u> Practical knowledge and understanding of the <i>International Regulations for Preventing Collisions at Sea with Canadian Modifications</i>.</p>	<p>Ability to immediately recognize any distress signal as listed in Annex IV. Practical understanding of Rules 1 - 36. Thorough knowledge of Rules 2, 4, 5, 6, 7, 8, 9(c), 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 26, 27, 30 and 35, as well as Annex II. Proficient ability to use TP 10739B (<i>The Collision Regulations</i>) as a reference publication.</p>	<p>21 hours</p>
<p><u>Bridge watch procedures:</u> Practical understanding of principles to be observed in keeping a navigational watch on board a fishing vessel ≤150 GRT.</p>	<p>Principles to be observed in keeping a navigational watch as set out in STCW Code sections A-VIII/2 and B-VIII/2, as it applies to fishing vessels ≤150 GRT. Knowledge of the principles of bridge teamwork. Proper principles regarding conduct, handover and relief of the watch. Proper look out requirements. The responsibility for the safety of navigation to be clearly defined at all times, including periods when the Master is on the bridge and under pilotage. Importance of good communications on the bridge between watch members and when changing watches. Awareness on when to call the Master, especially if any doubt exists. Bridge teamwork procedures.</p>	<p>6 hours</p>
	<b>Total:</b>	<p><b><u>70 hours</u></b></p>

**2. GENERAL KNOWLEDGE ON SEAMANSHIP AND STABILITY:**

*(Oral examination)*

Subject	Knowledge Required	Estimated training time
<b>Competence:</b>	<b>Maintain a safe navigational watch</b>	
<p><u>Life saving and distress signals:</u> Recognition and proper action.</p>	<p>Recognition and knowledge of the meaning of distress signals contained in the <i>Collision Regulations</i>. Recognition and knowledge of the meaning of lifesaving and distress signals contained in the International Code of Signals.</p>	2 hours
<p><u>Navigation safety:</u> Maintaining a safe navigational watch.</p>	<p>Responsibilities, duties and related tasks: Principles to be observed in keeping a navigational watch. When to call the master. Demonstrate a practical knowledge of the <i>Collision Regulations</i> and Canadian Buoyage System.</p>	2 hours
<p><u>Pollution prevention:</u> Knowledge of applicable regulatory requirements, who to contact in case of release of pollutants and possible consequences - i.e. responsibilities.</p>	<p>Knowledge of the precautions to be taken during refuelling. Precautions to be taken to prevent pollution of the marine environment by oil, garbage and other pollutants. Appropriate action to take in response to release of a pollutant, including whom to contact. General understanding of regulations pertaining to the release of pollutants from ships.</p> <p>Refer to the <i>Regulations for the Prevention of Pollution from Ships and for Dangerous Chemicals</i>.</p>	1 hour
<p><u>Construction and seaworthiness:</u> Practical understanding of the basic types of small fishing vessel construction, including common terminology.</p>	<p>Structural components of wooden, fibreglass and steel fishing vessels. Basic dimension terminology - transverse, longitudinal, breadth, depth, freeboard and understanding draft marks. Structural stresses - hogging, sagging, panting and pounding. Gross tonnage, displacement tonnage, and deadweight tonnage. Understanding of factors affecting watertight integrity. Importance of freeing ports being kept clear. Practical understanding of the importance of on board alarm systems. General damage control techniques on board small fishing vessels. Transport Canada inspections.</p>	6 hours
<p><u>Stability:</u> Practical appreciation of the principles of fishing vessel stability.</p>	<p><u>Basic Terminology:</u> List and heel, trim, G, B, K, M and Z. Practical understanding of transverse stability principles including: GM, GZ, stiff and tender ships, equilibriums, reserve buoyancy, freeboard and other factors affecting the overall stability of the vessel. Practical understanding of righting energy curves. Effect of water density on vessel draft. Potential dangers associated with icing, free surface effect and improper loading of a fishing vessel, and corrective measures necessary.</p>	12 hours

Subject	Knowledge Required	Estimated training time
<b>Competence:</b>	<b>Maintain a safe navigational watch</b>	
	Effects of using a boom/crane to unload the catch on stability. In practical terms, the effect of anti-rolling devices on a vessel's stability. How to find and extract the following information from a vessel's stability booklet: Notes to the master, tank characteristic and status tables. Practical understanding of the type of information presented in displacement tables, as found in the different loading conditions examined in the booklet.	
<u>Practical seamanship:</u> Practical knowledge necessary to manoeuvre the vessel and perform duties required of a mate on a fishing vessel ≤150 GRT or master on a fishing vessel ≤15 GRT.	<u>Practical appreciation of:</u> Vessel propulsion characteristics – single and twin screw, transverse thrust, shrouded propeller, bow thrusters and the rudder in different manoeuvring scenarios, turning circles and stopping distances. Identify different mooring lines, importance of fendering. Responsibility for damage associated with own ship's wake within ports etc... Various knots and splices. Considerations when anchoring a vessel. Anchor watches.	4 hours
<u>Safe working practices and OHS:</u> Knowledge of the requirements as prescribed in regulations affecting fishing vessels ≤150 GRT <ul style="list-style-type: none"> <li>• Safe Working Practice Regulations.</li> <li>• MOHS – Canada Labour Code</li> </ul>	<u>Practical knowledge</u> of requirements regarding: Gangways, ladders, scaffolds, stages and railings, working aloft, confined spaces, hot work, refuelling, personal protective equipment, sanitation and crew considerations, tools and equipment. Loading and offloading considerations – lifting appliances. Knowledge of Safe Working Load (SWL). Knowledge of the information contained in the <i>Small Fishing Vessel Safety Manual</i> (TP 10038).	4 hours
<u>Marine weather and marine forecast:</u> General knowledge of weather systems, forecasting and sea states, ice charts.	<u>Practical knowledge</u> of wind circulation associated with high and low pressure systems, significance of spacing of isobars, weather conditions associated with cold fronts and warm sectors. Relationship between wind shift and barometer movement. Understanding marine weather forecasts, where to access forecasts, warnings and bulletins, sea state forecast. Practical understanding of information on an ice chart.	2 hours
<u>Emergencies:</u> Knowledge of proper action to take in the case of an emergency.	(MED) Knowledge of proper action to take in the event of a collision, grounding, stranding, abandonment, flooding, fire, man overboard or on board medical emergency. Knowledge of Search and Rescue resources available and proper procedure to access their service. Proper action upon sighting a distress signal and legal responsibilities.	2 hours
	<b>Total:</b>	<b><u>35 hours</u></b>