



# Fishing Vessel Master

## ROLE OVERVIEW

**Working as the commander in chief of a fishing vessel you will be responsible for the health, safety, and wellbeing of all members of your crew onboard. You will plan, manage, and execute the activities of fishing vessels inshore, coastal, offshore waters. You will direct and control the navigation of the vessel, requiring extensive training in meteorological studies and stability principles.**

To be successful in this position you must not only have strong understanding of the life at sea but also have the necessary leadership skills and abilities to manage a crew of seafarers in a variety of complex environmental conditions. This role requires you to adhere to a rigid set of domestic and international regulations for the safe and sustainable harvesting of fish populations. While the methods used to catch, store, and transport fish will differ the underlying principles for sustainable harvesting within a rigid regulatory environment will remain consistent.

While an important directive of this role is to manage the sustainable harvesting of fish from the sea, the primary directive will always be to ensure the life and security of your crew.

*ECO Canada recognizes the diversity in scope of this role with respect to craft and crew size, operating mission, and operational area. As such, the stated competencies and performance statements may not represent your responsibilities in your role at your organization. The profile is meant to serve as a guide to the most common competencies in this role.*

## STRATA LEVEL: 3A – Manager

### Also Known as:

- Ship Captain
- Boat Captain
- Charter Boat Captain
- Vessel Captain, Fishing Master
- Fishing Vessel Captain

### Education and Experience:

- High School Diploma or Equivalent
- Experience as a fishing vessel deckhand
- Marine Emergencies Duties (MED) Certificate
- A Commercial Fishing License
- Certificates of Competency by Transport Canada
  - Fishing Master, Fourth Class
  - Fishing Master, Third Class
  - Fishing Master, Second Class
  - Fishing Master, First Class

### Associated NOC(s):

- **8261** – Fishing Masters and Officers



## TECHNICAL



### Meteorological and Hydrological Forecasting

**Monitor meteorological and hydrological data and systems to determine and forecast conditions to make informed decisions based on the interpretation of data.**

- Uses instruments and secondary data sources to obtain meteorological information prior to taking watch to make informed decisions.
- Uses instruments and secondary data sources to obtain hydrological information prior to taking watch to make informed decisions.
- Maintain a dynamic situational awareness of conditions to determine appropriate course of actions.
- Recognize significant changes to environmental conditions to assess the potential impacts of changes to adjust plans accordingly.
- Immediately alert necessary parties of changes to environmental conditions and plans of action to ensure all parties know active duties.

### Chartwork and Pilotage

**Uses charts, nautical publications, and instruments to pilot a vessel in and out of harbors or anchorages, along coastlines, and through channels.**

- Uses nautical charts to identify navigable areas, shorelines, and non-navigable areas to safely navigate vessel.
- Maintains an up-to-date collection of Canadian nautical publications to use as navigation aids to ensure vessel safety.
- Determines a vessel positioning by using landmarks, navigation aids, and dead reckoning to chart a true course between observed positions.
- Maintains an up-to-date logbook and a record of compass errors to ensure accurate reporting on the progress of the vessel.
- Interprets the effects of wind, current, and tides to calculate the speed between two positions.
- Uses navigable aids and pre-calculations of tidal heights to alter courses when navigating vessel through confined waters.
- Creates a passage plan to determine an efficient route, alternate routes and possible ports of refuge in case of emergency, anticipated weather conditions, the abilities of the crew, the condition of the boat and its equipment, and necessary charts to ensure safe passage of a vessel.



## Radar Navigation

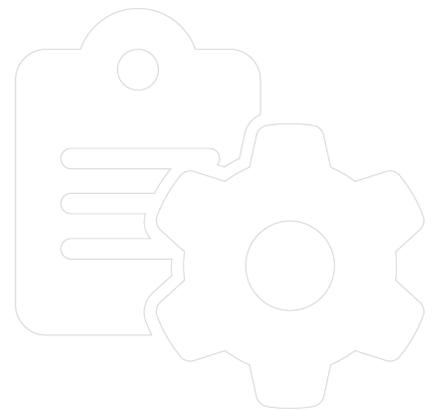
**Org Interprets and analyzes information obtained from radar system to direct and maintain safe navigation of a ship.**

- Uses navigation equipment to determine a craft's position fix, course, and speed to safely navigate through an area.
- Accounts for environmental, meteorological, and hydrological conditions to set a craft's course and speed to ensure safe navigation.
- Adjusts controls and inputs variables into radar system to navigate the safe voyage of the vessel.
- Uses parallel indexing techniques where appropriate to minimize cross track distances and maintain a safe distance from shorelines.
- Identifies critical echoes from radar navigation to chart ship through various traffic situations.
- Uses radar systems to detect course and speed changes of other ships to adjust craft's positioning accordingly.

## Ship Stability

**Takes appropriate measures to stabilize the vessel to ensure the safety of the crew and equipment onboard.**

- Applies knowledge of transverse and longitudinal stability principles to assess the stability of the vessel to reduce the risk of capsizing.
- Adjusts the positions of weight onboard to correct unstable and neutral equilibrium to maintain vessel stability.
- Uses pre-calculated operating conditions to ascertain adequate stability to adapt ships stability under conditions of duress.
- Uses displacement and TPI/TPC scales to determine displacement from draft and vice versa
- Maintains integrity of the hull and superstructures to prevent flooding and capsizing.
- Ensures captured fish are stowed using appropriate methods to avoid overloading and maintain vessel stability.



## Budget and Cost Management

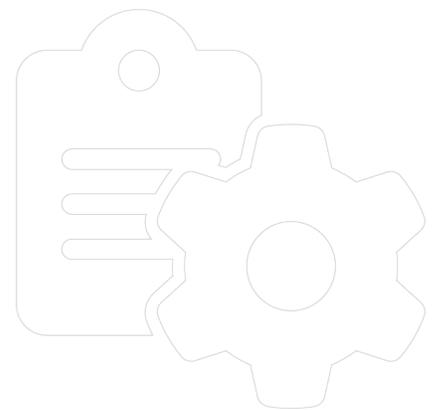
**Assess costs and streams of revenue generation to ensure fishing vessel and fishing operations are financially viable and efficiently managed.**

- Considers the marginal cost of catching one more fish while at sea to determine the optimal length of time for a fishing voyage.
- Determines the cost per day of a fishing voyage to calculate how long a fishing voyage can be.
- Documents and reports on the fishing operations costs and budget metrics to account for potential profits and losses.
- Monitors the operating cost and budget metrics to fishing operations and performance to ensure operations remain viable.

## Equipment Management

**Operates and maintains equipment using established processes to ensure all equipment functions within allowable variances to maximizes safety and efficiency.**

- Select appropriate fishing gear to ensure that gear is appropriate to target species, anticipated catch rates, and the operating environment
- Verifies that selected gear can be fitted to vessel to ensure that the selected fishing gear matches the operating capability of the vessel.
- Monitor performance of the gear and implement adjustments to the rigging to match changes in operating conditions.



## PERSONAL AND PROFESSIONAL



### Leadership

**Promotes and leads cooperation among supervised personal to achieve a collective outcome.**

- Allocates duties and informs crew of expected standards of work and behaviour to meet a standard result.
- Shares relevant and useful knowledge, experience, or expertise to aid crew accomplish their objective more efficiently or effectively.
- Provides opportunities for crew members to contribute to operational planning by expressing others contribute their knowledge, expertise, or efforts to achieve objectives.
- Provides junior members of crew with training and developmental objectives to improve operational capabilities and current levels of competence.

### Attention to Detail

**Delivers a concentrated concern, including monitoring and checking information, organizing tasks and resources efficiently, or all areas involved towards the completion of an objective.**

- Provides accurate, consistent information on all pieces of work to ensure reliable results.
- Routinely expresses concern that procedures and standards are followed thoroughly in the completion of a task[s].
- Stays calm under pressure and distress to ensure operation are maintained under situations of duress.
- Applies a concentrated concern to interpreting navigational information to ensure vessel maintains true course.



## Professional Ethics

**Demonstrates honesty, responsibility, respect, and fairness in decision making to diminish risk, increase trust, and improve long term success.**

- Understands sustainable catch rates and does not overfish populations to ensure stock biomass is not reduced.
- Establishes and promotes a culture of respect and ethics with the crew to ensure successful operations.
- Adheres to all regulatory and legislative procedures, processes, and programs to ensure fair and equal access to shared resources.
- Implement responsible and sustainable fishing methods effectively to minimise their potential impact on undersized and non-target species and the marine environment.

## Attention to Detail

**Identifies problems and uses logic, judgement, and evidence to evaluate alternative scenarios and recommend solutions to achieve a desired goal.**

- Analyzes radar and environmental information to determine the most optimal areas to fish.
- Identifies service and maintenance issues to equipment or vessel and coordinates with crew to alleviate problems.
- Assesses environmental conditions to determine safe navigation passage and evasion from dangerous scenarios.
- Analyzes fishing operations metrics to determine the point of optimal revenue and when to end voyage.
- Identify the strengths and weaknesses of crew members to effectively allocate tasks.

## Attention to Detail

**Positively directs outcomes by delivering communication that results in a better understanding of goals and objectives and that capture interest and gain support for immediate action.**

- Provides clear instructions, information, and duties to supervised employees to ensure employees clearly understand their position.
- Maintains a clear line of communication in situations of duress to ensure the safety of all crew onboard.
- Understands and applies nautical slang/ship speak when communicating with crew.
- Composes concise and unambiguous messages between shore and vessel to mitigate misunderstandings to ensure marine safety.



## LEGAL, REGULATORY, AND POLICY



### Regulatory Compliance

**Adheres to specific regulation and legislation within a defined jurisdiction to monitor organizations compliance and implementation of best practices.**

- Inspects vessel and equipment regularly, accounting for Transport Canada Marine Safety and Security inspection regime, to ensure the regulatory compliance of vessel.
- Studies and analyses different fisheries management approaches, accounting for international treaties and industry norms to analyze fisheries management regulations.
- Monitor and control compliance with legislative requirements while onboard to ensure the safety of life at sea.
- Renews certificates and documents required to be onboard ships to ensure the continued validity of inspected items and equipment.

### Environmental Policy Evaluation

**Adheres to the International Regulations for Preventing Collisions at Sea with Canadian Modifications to ensure the safety of vessels and crews while at sea.**

- Demonstrates knowledge of navigational safety, including distress, fog, and manoeuvring signals to ensure safe navigation.
- Considers all relevant factors, as describes in the STCW code, to assign watchkeeping duties to officers onboard to maintain a safe navigational watch.
- Provides standing orders and other special instructions, where necessary, to officers to maintain the navigation of the ship.
- Compares compasses and synchronizes repeaters with the officer in charge of navigational watch to determine standard compass error.
- Exchanges information with the navigational watch on navigational procedures, weather conditions, and ship's characteristics to maintain an accurate check on the ships position and movement.



## ENVIRONMENTAL



### Fishing Operations

**Catches fish using established commercial fishing techniques to ensure prolonged sustainability of aquatic populations.**

- Select and prepare fishing gear to rig equipment in accordance with vessel capabilities to conduct operations in compliance with applicable legislation.
- Coordinate the sequence of fishing activities to confirm crew understands their responsibilities to ensure a safe and efficient operation.
- Interprets data and information from electronic equipment to evaluate the characteristics of a school of fish to safely position vessel to optimize fishing operations.
- Assesses environmental conditions to determine an appropriate strategy to sustainably catch fish to optimize operations.
- Monitors and evaluates the cleanliness of the deck and fishing hole prior to loading and manipulation to mitigate contamination and ensure regulatory compliance.
- Oversees fish storage procedures to ensure fish are headless, gutted, washed, and sorted to avoid fish product deterioration.
- Collect and interpret data to monitor and assess the effectiveness of responsible and sustainable fishing operations.

### Marine Pollution Prevention

**Takes appropriate precautions and follows procedures to control pollution and byproducts caused by vessel operations to protect the marine environment.**

- Takes appropriate precautions to prevent pollution of the marine environment.
- Applies procedures for monitoring shipboard operations to comply with legislative requirements to ensure a positive environmental reputation.
- Ensures vessel has the requisite and functional equipment while at sea to mitigate operational pollution.
- Adheres to appropriate legislations and regulations in response to reporting pollution incidents to ensure pollution is addressed.



## Marine Emergency Duties

**Assesses, prepares, and responds to onboard emergency situations to assist in their own or crew's survival and rescue.**

- Identifies and applies damages control techniques for various flooding scenarios to prevent capsizing.
- Plans regular safety exercises, drills, or scenarios to maximize safety in potentially dangerous scenarios.
- Develops and implements onboard safety programs in accordance with regulations, standards, and legislation to mitigate potentially dangerous scenarios.
- Applies onboard and practical firefighting training in the event of an emergency to work as a team to extinguish fires.
- Identify muster signals in the event of an emergency to take appropriate measures to ensure the safety of self and crew.
- Operates survival craft equipment in the event of an emergency to ensure the safety of self and crew.

