# TSC Category

Cargo Operations

## TSC

Ship Operations

## TSC Description

Coordinate and support ship operations, including berthing, resupplying, and cargo loading and unloading

<table>
<thead>
<tr>
<th>TSC Proficiency Description</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support ship berthing and subsequent operations in the ports</td>
<td>STP-CGO-1009-1.1</td>
<td>Coordinate ship operations at port</td>
<td>STP-CGO-2009-1.1</td>
<td>Prepare plans for specific ships' operations</td>
<td>STP-CGO-3009-1.1</td>
<td>Develop plans to direct the organisation’s ship operations</td>
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<td>Formulate and review the organisation’s key performance indicators to enhance ship operations performance</td>
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</tbody>
</table>

## Knowledge

- Functions and roles of shipping in international trade
- Preparation of berthing, including:
  - Purpose of ship schedules
  - Notification of Arrival (NOA), confirmation of arrival, passenger ship and height
  - Process of port clearance
  - Preparations prior to ship’s arrival
  - Types, features and classification of ships
- Concept of ship stability and stress
- Importance of monitoring ship fuel consumption, speed and engine trouble
- Regulations and requirements relating to ships: International navigational limits
  - International Maritime Organization (IMO) and government maritime requirements
- Components of ship operations plan
- Preparation of berthing, including:
  - Purpose of ship schedules
  - Notification of Arrival (NOA), confirmation of arrival, passenger ship and height
  - Process of port clearance
  - Preparations prior to ship’s arrival
  - Types, features and classification of ships
- Procedures for safe loading, stowage, securing and care during the voyage and unloading of cargoes
- Carriage of dangerous goods
- Methods to monitor and control compliance with legislative requirements
- Statutory regulations and guidelines, organisational instructions and guidance and ship contingency plans
- Components of ship operations plan
- Contingency plans for ship operations
- Procedures for safe loading, stowage, securing and care during the voyage and unloading of cargoes
- Carriage of dangerous goods
- Methods to monitor and control compliance with legislative requirements
- Statutory regulations and guidelines, organisational instructions and guidance and ship contingency plans
- Key performance indicators associated with ship operations
- Methods to monitor key performance indicators
- Components of ship operations plan
- Contingency plans for ship operations
- Key performance indicators associated with ship operations
- Methods to monitor and control compliance with legislative requirements
- Statutory regulations and guidelines, organisational instructions and guidance and ship contingency plans

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### SKILLS FRAMEWORK FOR SEA TRANSPORT
#### TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT

<table>
<thead>
<tr>
<th>Importance of maintaining the statutory survey records and schedules of ships</th>
<th>Speed and engine trouble</th>
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</thead>
<tbody>
<tr>
<td>Importance of certificates and documents of ocean-going ships</td>
<td>Statutory regulations and guidelines, organisational instructions and guidance and ship contingency plans</td>
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<tr>
<td>Stevedorage and literage</td>
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<tr>
<td>Functions of MARINET</td>
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</tbody>
</table>
### Abilities

- Update ship schedules for arrival and departure times
- Coordinate ship berthing and preparations prior to berthing
- Monitor port activities to ensure schedules are adhered to
- Carry out arrangements for post-berthing support to the ships
- Coordinate ship movements, operations and communications
- Maintain and update documentation of IMO and government maritime requirements and other relevant ship certificates
- Maintain all certificates and documents of ocean-going ships
- Update statutory survey records and schedules of ships

- Estimate expected arrival and departure times of ships
- Select equipment and materials to carry out operations
- Carry out arrangements for post-berthing support to the ships
- Coordinate ship movement, operations and communications during berthing
- Maintain and update documentation of IMO and government maritime requirements and other relevant ship certificates

- Prepare plan for operations on receipt of instructions for the ship
- Negotiate with external agencies to ensure that operations proceed safely and according to schedule
- Verify that procedures for environmental protection, emergencies and contingencies on ships are established and ready for operations
- Verify that defined procedures for handling dangerous, hazardous or harmful substances on ships are in accordance with regulations and codes of safe working practices
- Track progress on vessel operations
- Confirm that ships are secure on completion of operations
- Record plans for reference
- Maintain operations records in accordance with legislative and organisational requirements

- Specify the most appropriate strategies, work methods and activities for ship operations in the port
- Develop plans and procedures for dealing with known contingencies, hazards or special requirements of ships and to meet safety requirements
- Develop operational strategies and procedures for compliance by port operators and ship personnel
- Develop cargo loading and unloading plans for ships coming into port
- Analyse ship operations performance indicators against set targets and propose recommendations for improvements

- Formulate key performance indicators to measure ship operations performance
- Monitor operational progress against required quality of work and adherence to both budget and time schedules
- Evaluate opportunities for improvements to enhance cargo operations and ship movements
- Use outcomes of monitoring activities and feedback from crew members to determine key performance indicators