

Master (code vessels less than 200 GT) Officer of the Watch (yachts less than 500 GT)

Oral Examination Master (code vessels less than 200 GT)

Navigational Safety

1 Plan and conduct a passage Including Chartwork and Position Determination

- a) Passage planning with respect to use of navigational publications, including navigational charts, sailing directions, light lists, tide tables, radio and navigational warnings
- b) IALA system of maritime buoyage A and B
- c) Limitations and sources of error of electronic chart and navigation systems
- d) Radar and ARPA – practical use of, modes of operation, limitations and sources of error, including basic radar plotting techniques
- e) Understands the importance of regular checking of the vessel's position and action to be taken if found off track
- f) Applies variation and deviation to convert true course to compass course and vice versa; understands the basic causes of variation and deviation
- g) Fixes a ship's position on the chart given magnetic bearings and/or radar ranges and quotes position by latitude and longitude
- h) Finds the magnetic course to steer and the ETA at a given destination given the starting position and log speed
- i) Identifies transits and clearing marks from the chart in order to plan a safe approach to harbour or anchorage
- j) States the meaning and explains the significance of chart symbols and abbreviations in common use
- k) Knows how to obtain and use weekly notices to mariners in order to correct charts
- l) Finds the time of high and low water, and predicts intermediate heights and/or times for standard and secondary ports
- m) Find and predict set and rate of the tide from tidal reference points on the chart, and tidal stream atlas

2 Meteorology

- a) Knows the sources of meteorological information
- b) Interprets weather forecasts including knowledge of characteristics of various weather systems
- c) Ability to use and interpret information obtained from shipborne meteorological instruments

3 Maintain a Safe Navigational Watch

- a) A thorough knowledge of the principles of navigational watchkeeping at sea, including watchkeeping at anchor; as STCW Code A-VIII and ICS Bridge Procedures Guide
- b) Understand the use of bridge equipment, including echo sounder and Navtex
- c) Knowledge of steering control systems, including automatic pilot and operational procedures and change over from manual to automatic control and vice-versa
- d) Maintain navigational records
- e) Knows the circumstances under which the Master should be called to the bridge
- f) Knows the principles for handing over and relieving the navigational watch

4 International Regulations for Preventing Collisions at Sea (ColRegs)

- a) A thorough knowledge of the ColRegs including:
 - i. requirements for proceeding at a safe speed and keeping a lookout
 - ii. recognises the lights and shapes, and fog signals for all classes of vessel
 - iii. recognises the manoeuvring sound signals
 - iv. recognises light signals
 - v. recognise a developing collision situation by compass, radar or visual reference
 - vi. states the actions to be taken by day and night to avoid collision
 - vii. describes the precautions to be taken when navigating in or near areas of restricted visibility; assess the likely likelihood of collision of vessel detected by radar alone and action to be taken to avoid a collision
 - viii. describes the requirements for navigating in or near traffic separation schemes
 - ix. describes the requirement for navigating in narrow channels

Response to Emergencies, Operational Safety and Pollution Control

1 Distress Signals and Communications

- a) States the conditions under which distress signals may be used; understands the various types of distress signal, action to be taken on receipt and the obligations to render assistance
- b) Understands the correct use of pyrotechnics, EPIRBS and SARTS including the appropriate circumstances for their use
- c) Understands correct distress communications procedures including the terms Mayday, PanPan and Sécurité messages
- d) Emergency communication with the GMDSS regulations

2 Manoeuvring the Vessel

- a) Preparation for getting under way, duties prior to proceeding to sea, making harbour, entering a dock, berthing alongside quays and jetties or other ships, and securing to buoys
- b) Use and care of mooring lines and associated equipment
- c) Helm orders, conning the ship, effects of propellers on the steering of the ship, effects of wind and current, stopping, going astern, and turning short round
- d) Action in event of failure of bridge control, telegraph or steering gear, including emergency steering arrangements
- e) Procedures for anchoring
- f) Understand the precautions to be observed when using winches and windlass
- g) Understand the precautions to be observed when mooring and un-mooring

3 Responses to Emergencies

- a) Initial action following: man overboard, collision, grounding, flooding or major mechanical damage, initial damage assessment and control, protection of the marine environment
- b) Knowledge of fire prevention, use and care of fire-fighting appliances, the shut-down and isolation of plant and equipment, escape and breathing apparatus, fire and safety plans
- c) Use and care of lifesaving appliances and equipment including, immersion suits and thermal protective aids, pyrotechnics and line throwing apparatus
- d) Launching of liferafts and rescue boats; proper rigging of liferaft hydrostatic release units
- e) Basic principles of survival

4 Pollution Prevention Requirements

- a) Pollution prevention in port and at sea; measures to be taken to prevent pollution during bunkering
- b) Action to be taken in response to pollution incidents in port and at sea
- c) Basic understanding of garbage management, and disposal of garbage and oil residue

5 Seaworthiness of the Ship

- a) Understand fundamentals of watertight integrity, and the closing of all openings including hatches, access hatches and watertight doors
- b) Understands the difference between good stability and poor stability, and recognises the warnings signs of the latter
- c) Describes the effect on stability of:
 - i. raising and lowering weights
 - ii. low freeboard
 - iii. obstruction of deck freeing arrangements and scuppers
 - iv. slack tanks
- d) Preparations for heavy weather, ensuring and maintaining watertight integrity

6 Business and Law

- a) Understand the content and application of the applicable Codes, namely 'Small Vessels Commercial Code'¹ and Large Commercial Yacht Code (LY3)²
- b) A knowledge of the Code of Safe Working Practices for Merchant Seamen³, the content and practical application
- c) A knowledge of the requirements for musters and drills including fire, emergency, and abandon ship drills
- d) Understand the legal obligation to ensure a seaworthy vessel
- e) A basic understanding of the laws of salvage
- f) Understand the requirements for safe manning, hours of work and watchkeeping
- g) Understand the circumstances when a vessel requires a crew agreement