

Appendix 1 - Syllabus for the AMSA Oral Exam, Cert Compt, Master & Chief Mate (Unlimited), Master and Chief Mate <3000 GT



AUSTRALIAN MARITIME SAFETY AUTHORITY

NOTES TO CANDIDATES:

1. It should be noted that the following is not a fully detailed list of oral questions, but a list of topics about which candidates are expected to have adequate knowledge, and is provided for the guidance of candidates only
2. The Examiner may ask any questions relevant to the following topic areas, and / or ask the candidate to provide answers in diagrammatic form, or to complete simple calculations, to the extent necessary to test the candidate's competency in the managerial, operational and safety aspects related to the duties of the grade of certificate applied for.
3. Candidates for both Masters and Chief Mates grade of certificate can be asked questions from all sections listed, however the focus of the questions and the assessment, will be related to the main management responsibilities and shipboard duties involved in the certificate being applied for.
4. As this syllabus also incorporates the syllabus for lower grade certificates, the Examiner may ask questions related to those lower grade certificates as it affects the overall safe operation of the vessel.
5. Candidates should note that they may be required to demonstrate their proficiency in RADAR plotting and chart-work.
6. During the examination, candidates will be required to demonstrate that they possess an adequate knowledge and understanding in the use of the English language.

Section 1 – Management of Regulatory and Ship's Administration

Knowledge of ship inspection and survey programmes and the roll of Port State control and Flag State Control Officers

Knowledge of a ships certification, documentation and records.

Knowledge of classification societies, classification and surveys of ships and equipment.

Knowledge of appropriate Australian legislation, statutory requirements, including the ISM Code and the application thereof.

Knowledge of relevant International Codes and Conventions and the application thereof.

Knowledge of Australian OH & S legislation as it applies to the maritime industry.

Ship administration duties, shipmasters business and carriage of goods by sea

Joining a vessel and the responsibilities and duties of shipboard personnel

Section 2 – STCW Standards of Watch-keeping

Principals to be observed in keeping a watch in port, on the bridge watch at sea, at anchor and under pilotage.

Voyage planning berth to berth

Bridge resource management

Protection of the marine environment

Section 3 - Bridge Equipment

Knowledge of the different types of bridge and navigation equipment, along with the operation, testing, errors and precautions associated with the use of such equipment.

Section 4 – Navigation, Charts and Publications

Maintenance and practical knowledge of nautical publications and charts.

Knowledge of ship reporting systems and the promulgation of all relevant maritime safety information.

Knowledge of the use of charts and interpretation of charted information, including the general principles of voyage planning.

Knowledge of all aspects of practical navigation and obtaining tidal information required by senior management shipboard personnel

Section 5 - Stress and Stability

Practical knowledge and use of all relevant sources of information to safely load a vessel and assess a vessel's stability condition, trim and list.

Principles of ship stability

Knowledge of Load lines and seasonal zones, drafts and the effects of changes in water density

Knowledge of the different types of shipboard stresses and means of reducing such stresses.

Management of free surface effects

Section 6 - Cargo Work

Knowledge of Australian and international legislation, and detailed knowledge of the requirements, relating to the carriage, stowage, securing, loading and unloading of cargoes on various types of vessels.

Knowledge of typical cargo handling equipment found on various types of vessels.

Knowledge of all aspects on confined space entry

Knowledge of the carriage of dangerous goods

Section 7 - Ship Handling

Knowledge of manoeuvring techniques, principles and characteristics for the main ship types, and their propulsion systems.

Knowledge of the safe principles of mooring and unmooring, anchoring and heaving to

Knowledge of the use of tugs and anchors

Knowledge of interaction and other factors affecting manoeuvring in narrow channels and shallow water

Knowledge of the principles for the safe embarking and disembarking of a pilot, and launch and recovery of rescue craft

Management of vessel in adverse weather and the effect of wave impact on a vessel, the effect of adverse weather on various ship operations involving manoeuvring

Section 8 - Prevention of Pollution

Knowledge of Australian and International legislation in relation to pollution

Safe management principles of all relevant shipboard precautions to prevent pollution.

Knowledge of the actions to be taken in event of a pollution incident

Knowledge of bunkering precautions

Section 9 - Emergency Situations / Response and Equipment

Knowledge of contemporary safety issues, reports and papers, affecting the maritime industry

Management level response to various shipboard emergency situations both in port and at sea

Principles of damage control and salvage

Obligations to render assistance and in sending emergency signals

Knowledge of the safe management of helicopter operations

Knowledge of the safe principles of towing operations

Section 10 - Dry Docking

Preparations for docking and undocking including stability issues

Precautions and dangers whilst in dock

Management of OH & S issues in dock

Section 11 - Search and Rescue

Knowledge of search and rescue publications, procedures, communications and equipment

Knowledge of survival techniques

Section 12 – Essential Shipboard Equipment and Machinery

Knowledge of the operation of various types of shipboard fire fighting and life saving equipment, together with an understanding of the associated safety aspects and precautions related to operation of such equipment.

Operation, maintenance and inspection requirements of essential shipboard equipment and machinery

Management and organisation of statutory drills.

Knowledge of all factors affecting the watertight integrity of the ship

Knowledge of correct operation of on load release gear for survival craft

Section 13 – Collision Avoidance and Buoyage

The application and content of the International Regulations for Preventing Collisions at Sea Collision avoidance

Knowledge of the internationally adopted system of buoyage.