Candidates should demonstrate the ability to apply the knowledge outlined in this oral examination syllabus and oral examination syllabus **Deck- C and D**, by the appropriate response, anticipations and reactions to a range of routine, non-routine and contingency scenarios as presented by the examiner, from the perspective of **CHIEF MATE – More than 3000gt Near Coastal (STCW II/2)**.

**TOPIC 1  NAVIGATION**

**.1 Plan and Conduct Safe Navigation**

a) passage planning with respect to the use of navigational publications including navigational charts (including ECDIS and RCDS), sailing directions, light lists, tide tables, radio navigational warnings and ship routeing information;
b) the requirements of ship routeing and mandatory reporting systems;
c) IALA systems of maritime buoyage;
d) Electronic navigational systems – limitations and sources of error, methods of correction;
e) Radar and ARPA – practical use of, modes of operation, limitations, sources of error and parallel indexing;
f) Sources of information, ability to use and interpret information obtained from ship borne meteorological instruments (the instruments supplied by the Meteorological Office will be taken as standard), knowledge of characteristics of various weather systems, reporting and recording systems;
g) Port radio information services, knowledge of the type of service available to aid vessels entering ports, berthing, VTIS and VTS services, as indicated in the Admiralty List of Radio Signals – Vessel Traffic Services, Port Operations and Pilot Stations.

**.2 Establishing Safe Watchkeeping Arrangements and Procedures**

a) thorough knowledge on the principles of navigational watchkeeping at sea, including under pilotage, and watchkeeping at anchor and in port;
b) a thorough knowledge of the content, application and intent of the International Regulations for preventing Collisions at sea;
c) conduct in and near traffic separation schemes;
d) understand the use of bridge equipment, including rate of turn indicators, course recorders, echo sounders and NAVTEX;
e) knowledge of steering control systems, including automatic pilot, operational procedures and change-over from manual to automatic control and vice-versa – adjustments of controls for optimum performance;
f) knowledge and application of the ICS Bridge procedures Guide
knowledge of principles of establishing a safe engineering watch at sea, anchor and in port.

.3 Compasses

a) use care and limitations of the magnetic and gyro compasses, and associated equipment including automatic pilot;
b) effects of siting other equipment with reference to magnetic compasses.

.4 Manoeuvre the Ship

a) preparations for getting under way, duties prior to proceeding to sea, making harbour, entering a dock, berthing alongside quays, jetties, or other ships and securing to buoys;
b) proper procedures for berthing and unberthing;
c) use and care of mooring lines and associated equipment;
d) anchoring and working anchors and cables; clearing a foul anchor and hawse, hanging off an anchor, breaking and slipping cables, getting under way;
e) helm orders, conning the ship, effects of propellers on the steering of a ship, effects of wind and current, stopping and going astern, turning short round, interaction and squat;
f) embarking and disembarking a pilot;
g) manoeuvres to launch and recover rescue boats and survival craft.

TOPIC 2 CARGO HANDLING AND STOWAGE

.1 Cargo Handling, Stowage, Securing and Care

a) use, maintenance and testing of cargo handling equipment, ascertaining safe-working load;
b) knowledge of the regulations and recommendations affecting cargo handling, stowage, securing and carriage;
c) use of the IMDG Code;
d) use of stability and trim information, knowledge of loading cargoes and ballasting with respect to stability, use of the hydrometer.

TOPIC 3 RESPONSE TO EMERGENCIES

.1 Response to Navigational Emergencies

a) measure to be taken following accidental damage including collision, grounding, heavy weather damage and leaks;
b) protection of the marine environment following accidental damage;
c) preparations and precautions to towing and being towed;
d) knowledge of operation of emergency steering systems;
e) precautions for the protection and safety of passengers in emergency situations;
f) use of the International Aeronautical and Marine Search and Rescue (IAMSAR) Manual (Volume III), distress and emergency signals; Search and Rescue around the UK.

.2 Response to Other Emergencies

a) the organisation and direction of fire-fighting and abandon ship parties;
b) methods of preventing fire on board ship; prevention of fire at sea and in port; actions to be taken to prevent the spread of fire;
c) operation, maintenance and testing of fire fighting equipment, fire doors, dampers, screens and detection equipment;
d) launch, manage and ensure survival in survival craft, recover survival craft at sea and beach or land survival craft;
e) operation, maintenance and testing of life saving appliances and equipment including hand held radios, EPIRBs, SARTs, immersion suits and thermal protective aids, and rocket line throwing apparatus;
f) knowledge of the contents of SOLAS training manuals and maintenance logs;
g) safety during helicopter operations.

.3 Communications

a) correct use of distress and emergency signals and awareness of penalties for misuse;
b) emergency communications within the GMDSS regulations;
c) sources of medical information available.

TOPIC 4 ONBOARD SHIP OPERATIONS

.1 Pollution Prevention Requirements

a) precautions to be taken to prevent pollution of the marine environment as required by MARPOL conventions, including restricted areas and disposal of pollutants;
b) measures to be taken to prevent pollution in port and at sea;
c) knowledge of the contents of the SOPEP manual, Garbage Management Plan and use of anti-pollution equipment.

.2 Seaworthiness of the Ship

a) understand the fundamentals of water tight integrity, and the closing of all openings including hatch covers, access hatches and watertight doors;
b) preparations for heavy weather;
c) practical knowledge of the particular loadline items affecting seaworthiness;
d) working knowledge of stability and trim information;
e) preparations for dry-docking and undocking;
f) use and care of deck machinery commonly fitted.
.3 Crew Management

a) knowledge of personnel management, organisation and training;
b) applications of hours of work and rest legislation.

.4 Legislative Requirements

a) contents and use of Merchant Shipping Notices, Guidance Notes, Marine Information Notes and the Annual Summary of Admiralty Notices to Mariners;
c) a knowledge of the relevant IMO conventions concerning safety of life at sea and protection of the marine environment;
d) reports required by the Marine Accident Investigation Branch;
e) purpose and application of International Safety management (ISM) Code;
f) purpose of Flag and Port State control;
g) the requirements of the regulations concerning life-saving and fire-fighting appliances;
h) requirements for drills and training;
i) understanding of load line marks, entries and reports with respect of freeboard, draft and allowances.