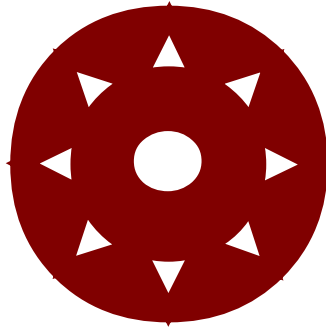
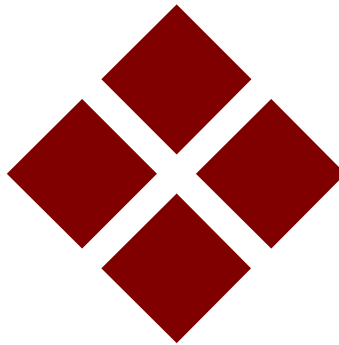




QUESTION AND ANSWER FOR MASTER ORAL EXAMINATION.



Master Mariner (UK).

CERTIFICATE/DOCUMENTS.

Q: What are the Statutory documents you will take over from outgoing Master ?

A: **SAFETY & MARPOL:**

- 1) Safety Construction Certificate. (SOLAS)
- 2) Safety Equipment Certificate. (SOLAS)
- 3) Passenger Ship Safety Certificate. (SOLAS)
- 4) Safety Radio Certificate. (SOLAS)
- 5) Load line Certificate.
- 6) Safe Manning Documents. (SOLAS)
- 7) Stability Booklet.
- 8) Certificate of Lifting Appliance.
- 9) Charts and Publication.
- 10) Operation Manuals.
- 11) De-rat Certificate.
- 12) FFA / LSA test and report.
- 13) Life raft servicing Certificate
- 14) GMDSS Certificate
- 15) ISM / SMS / DOC / SMC. (SOLAS)
- 16) MSNS / MINS / MGNS
- 17) Medical Locker / Stores / Narcotics
- 18) Declaration of Health
- 19) IMDG Code. (SOLAS)
- 20) IOPP Certificate.
- 21) Garbage Certificate
- 22) SOPEP
- 23) OLB
- 24) Exemption Certificate (SOLAS)

COMMERCIAL:

- 1) ISO 9002 QA
- 2) Registry
- 3) Tonnage
- 4) Light dues
- 5) Certificate of Class
- 6) B/L , Mate/R
- 7) Cargo manifest
- 8) Charter party
- 9) P & I Club information
- 10) Customs Documents
- 11) Port Clearance
- 12) Notes and Letter of Protest.

PERSONNEL:

- 1) Articles / Contracts
- 2) Certificate of Competency
- 3) Passport and CDC
- 4) Working Hours / Rest log
- 5) Cash / Bond Portage
- 6) Overtime / Stores
- 7) Provision / Stores
- 8) Personnel reports / appraisal
- 9) Training log
- 10) Medical.

As per SMS Company should have a checklist to go through to avoid missing any item.

Q: What you will enter in OLB

A: 1) The off going master should make an entry in the narrative section to the effect that he has delivered to me all documents relating to the ship and the crew and both he and I would sign this entry.

2) I would add my Name and Certificate no. to the list on the front cover.

Q: What are the items cover by (1) Safety Construction (2) Safety Equipment (3) Load Line Certificate ?

A: Safety Constructions:

- 1) Structural Strength
- 2) Machinery and electrical installations
- 3) Fire Protection
- 4) Windlass and Mooring equipment
- 5) Steering gears & requirements for UMS
- 6) Communications Bridge / ER and Bridge / Alternative steering position

Safety Equipment:

- 1) LSA & FFA Equipment,
- 2) Navigating Lights, Shapes & Sound Signals
- 3) Pilot Ladders & Hoist
- 4) Gyro Compass, Echo sounder, Nautical Publications, Emergency lighting.
- 5) OLB, Damage Control appliance.

6) Fire plan.

Load Line:

- 1) Assignment of freeboard and marking of Load Line
- 2) Ship's structure and fittings for water-tight integrity (i.e. hatch way's, Ship side openings, Non-return valve, Sounding pipe, Opening in ends of Superstructures, Vents, Air pipes, Freeing ports)
- 3) Crew Protection (i.e. Crew access and guard-rails, life line).
- 4) Loadicator, Stability book.

Q: Certificate validity?

A:

<u>Name of Certificate</u>	<u>validity</u>
1. Safety equipment	2 year
2. International Load line	5 year
3. Certificate of registry	5 year
4. Safety Construction	5 year
5. Certificate of Fitness	5 year
6. IOPPC	5 Year
7. Safety Radio	1 year
8. De-rat Certificate	6 months
9. Safe Manning Certificate.	5 years
10. Life raft servicing Certificate	2 Years
11. GMDSS Certificate	5 Years
12. ISM / SMS / DOC/SMC	5 Years
13. Tonnage Certificate	
14. Certificate of Class	

Q: What is a safe manning certificate? What would you fined on it and how it is determine? Validity?

A: Safe manning certificate: to confirms minimum person to be carried onboard a v/l to carried out full operation.

The certificate would issued on the basis of minimum person required on to operate:

1. V/L to alongside,
2. V/L to cust off,
3. Port operation including cargo watch, gangway watch,

4. At Sea:
 - a) Safe Navigation watch on Bridge.
 - b) Engine room Watch.
 - c) Radio watch.
5. Safety maintenance work in E/R.
6. Safety maintenance work on Deck.
7. Safe handle the operation in an emergency.
8. Environmental protection.
9. Cleanness for Fire safety.

Validity: nil.

Q: What is Note of Protest ? When to Note of Protest ?

A: NOTING PROTEST:

- Noting protest may help resist cargo loss or damage claims on the owner.
- A protest is a solemn declaration made on oath by Shipmaster that circumstances beyond his control have, or may have, given rise to loss and / or damage to his ship or its cargo, or have caused him to take action (such as leaving an unsafe port) which may render his owners liable to legal action by another party.
- A protest (without an extension) is a simple statement of fact, without added details.

WHEN NOTE OF PROTEST:

- 1) After every case of General average
 - 2) After wind and / or sea conditions have been encountered which may have damaged cargo or caused failure to make a cancelling date.
 - 3) After Cargo is shipped in a condition likely to deteriorate during the forthcoming voyage.
 - 4) After the ship has been damage from any cause.
 - 5) After a serious breach of the C/P by the charterer or his agent (e.g. Undue delay, refusal to load, cargo not of a sort)
 - 6) After the consignee fails to discharge or take delivery of the cargo or fails to pay freight.
- Protest should be noted as soon as possible after arrival and always with in 24h of arrival.
 - If in connection with cargo, it should b noted before breaking bulk.



Q: What is Master obligations on having a distress message?

A: a) While in a position to able to provide assistance on receiving a signal from any source, acknowledge receipt of message and is bound to proceed with all speed to their assistance. If possible informing them or the search and rescue service that the ship is doing so, & enter in the OLB.

b) The Master of ship in distress or the search and rescue service concerned, after consultation, so far as may be possible, with the master of ship which answer the distress alert, has the right to requisition one or more of those ships such as the master of the ship in distress or the search and rescue service considers best able to render assistance, and it shall be the duty of the masters of

the ship or ships so requisitioned to comply with the requisition by continuing to proceed with all speed to assistance of persons in distress.

c) Master of ships shall be released from the obligation imposed by paragraph (a) of this regulation on learning that their ships have not been requisitioned and that one or more other ships have been requisitioned and are complying with the requisition. This decision shall, if possible, be communicated to the other requisitioned ships and to the search and rescue service.

d) The master of a ship shall be released from the obligation imposed by paragraph (a) of this regulation, and, if the ship has been requisitioned, from the obligation imposed by paragraph (b) of this regulation, on being informed by the persons in distress or by the search and rescue service or by the master of another ship which has reached such persons that assistance is no longer necessary.

e) The provisions of this regulation do not prejudice the convention for the Unification of Certain of Law Relating to Assistance and Salvage at Sea, signed at Brussels on 23 September 1910, particularly the obligation to render assistance imposed by article 11 of that Convention.

Q: What preparation you will make whilst proceeding for distress?

A:

- Establish a traffic co-ordination system among v/l's proceeding to same area of distress.
- Radar plots on v/l's in the vicinity.
- Estimate ETA's of own and other v/l assisting.
- Asses distress situation to prepare for operation on scene.

On-Board Preparation :

Life Saving and Rescue equipment's:

- 1) Life boat.
- 2) Inflatable life raft
- 3) Life jackets

- 4) Survival suits for crew.
- 5) Life buoys
- 6) Breeches buoys
- 7) Line throwing apparatus
- 8) Portable VHF radios for communications with the ship and boats deployed.
- 9) Buoyant lifelines.
- 10) Heaving lines
- 11) Non-sparkling boat hooks or graping hooks.
- 12) Hatches.
- 13) Rescue baskets
- 14) Litters
- 15) Pilot ladders
- 16) Scrambling nets
- 17) International Cod of Signals.
- 18) On board radio (MF/HF) equipment's
- 19) Fire fighting equipment's
- 20) Portable ejector pumps
- 21) Binoculars
- 22) Cameras
- 23) Bailers and
- 24) Oars.

Signalling Equipment's:

- 1) Signalling lamps
- 2) Search light
- 3) Torches
- 4) Flare pistol with colour coded signal flares.
- 5) Buoyant VHF/UHF marker beacons.
- 6) Floating lights
- 7) Smoke generators
- 8) Flame and smoke floats
- 9) Dye markers
- 10) Loud hailers.

Preparation for Medical assistance, including:

- 1) Stretchers.
- 2) Blankets.
- 3) Medical supplies and medicines.
- 4) Clothing.
- 5) Food.

6) Shelter.

Miscellaneous:

- 1) If fitted crane for hoisting on each side of ship with cargo net for recovering of survivors.
- 2) Line running from bow to stern at the water's edge on both side for boats and craft to secure alongside.
- 3) On the lowest weather deck, pilot ladders and man rope to assist survivors boarding the vessel.
- 4) Lifeboat ready for use as a boarding station.
- 5) Line throwing apparatus ready for making connection with either ship in distress or survival craft.
- 6) Flooding light set in appropriate locations, if recovery at night.

Q: When vessel not Assisting?

A: The master deciding not to proceed to the scene of a distress due to sailing time involved and in the knowledge that a rescue operation is under way should:

- Make an appropriate entry in the ship's log book.
- If the master had previously acknowledged and respond to the alert, report the decision not to proceed to the SAR service concerned.
- Consider reports unnecessary if no contact has been made with the SAR service.
- Reconsider the decision not to proceed nor report to the SAR service when vessel in distress is far from land or in an area where density of shipping is low.

Q: What information you will gather from the survivors?

- A:
- 1) What was the time and date of the incident?
 - 2) Did you bail out or was the aircraft ditched ?

- 3) If you bail out, at what altitude ?
- 4) How many others you see leave air craft by parachute ?
- 5) How many ditched with the air craft ?
- 6) How many survivors did you see in the water ?
- 7) What floating gears had they ?
- 8) What was the total number of persons on board ?
- 9) What caused the emergency ?
- 10) What was the last known position ?
- 11) Were any of persons able to leave by life boat or raft ?
- 12) How long was the survivor in the water
- 13) Were search craft seen before, if so dates and times of sighting ?
- 14) Were any signals or devices used to try to attract the attention of search craft ? if so what were they and when were they used ?
- 15) About their medical history
- 16) All information should be noted.

Q: What is the purpose of questioning ?

- A:
- 1) To ensure that all survivors are rescued.
 - 2) To attend to the physical welfare of each survivor.
 - 3) To obtain information which may assist and improve SAR service.
- Care must be taken to avoid worsening a survivors condition by excessive interrogation.
 - If the survivors is frightened or excited, the questioner should assess these statements carefully.

Note: Questions should be asked avoid suggesting answers to the survivor. Explain that the information required is for the success of the SAR operation and may be of great value for future SAR operations.

Q: On-Scene Co-ordination

- A:
- # The types of facilities involved in the response and the region of the SAR incident affect on-scene co-ordination.
 - # Available facilities may be include:
 - designated SRUs

- civil aircraft and vessels, military and naval or other facilities with SAR capability.

In remote regions, SAR aircraft may not always be available, to participate.

In most oceanic region, ships will normally be available, depending on shipping density.

Ships may receive information from land-based SAR authorities or by monitoring distress traffic.

No advice received from these authorities can set aside the duties of any master as set forth in regulation V/10 of SOLAS 1974 (see appendix A).

Q: Who will be On-Scene Co-ordinator (OSC)?

A: 1. When two or more SAR facilities conduct operations together, the SMC should designate an OSC.

2. If this is not practicable, facilities involved should designate, by mutual agreement, an OSC.

3. This should be done as early as practicable and preferably before arrival within the search area.

4. Until an OSC has been designated, the first facility arriving at the scene should assume the duties of an OSC.

5. When deciding how much responsibility to delegate to the OSC, the SMC normally considers the communications and personnel capabilities of the facilities involved.

Q: What are the duties of OSC?

A: # Co-ordinate operations of all SAR facilities on-scene.

Receive the search action plan from the SMC or plan the search or rescue operation, if no plan is otherwise available. (See Planning and Conducting the Search in this section.)

Modify the search action or rescue action plan as the situation on-scene dictates, keeping the SMC advised (do in consultation with the SMC when practicable.)

Co-ordinate on-scene communications.

Monitor the performance of other participating facilities.

Ensure operations are conducted safely, paying particular attention to maintaining safe separations among all facilities, both surface and air.

Make periodic situation reports (SITREPs) to the SMC. The standard SITREP format may be found in appendix D. SITREPs should include but not be limited to:

- Weather and sea conditions
- the results of search to date
- any actions taken
- any future plans or recommendations.

Maintain a detailed record of the operation:

- on-scene arrival and departure times of SAR facilities, other vessels and aircraft engaged in operation
- areas searched
- track spacing used
- sightings and leads reported
- actions taken
- result obtained.

Advise the SMC to release facilities no longer required.

Report the number and names of survivors to the SMC.

Provide the SMC with the names and designations of facilities with survivors aboard.

Report which survivors are each facility.

Request additional SMC assistance when necessary (for example, medical evacuation of seriously injured survivors).

Q: Planning and Conducting the Search

A: General:

- For surface and air facilities to search patterns and procedures must be pre-planned so ships and aircraft can co-operate in co-ordinated operations with the minimum risk and delay.
- Standard search patterns have been established to meet varying circumstances.

Responsibilities of OSC

- The OSC should obtain a search action plan from the SMC via the RCC or RSC as soon as possible. Normally, search planning is performed using trained personnel, advanced search planning techniques, and information about the incident or distressed craft not normally available to the OSC. However, the OSC may still need to plan a search under some circumstances. Search operations should commence as soon as facilities are available at the scene. If a search plan has not been provided by the SMC, the OSC should do the planning until an SMC assumes the search planning function. Simplified techniques are presented below.
- Modify search plans based on changes in the on-scene situation, such as:
 - arrival of additional assisting facilities
 - receipt of additional information
 - changes in weather, visibility, lighting conditions etc.
- In case of language difficulties, the International Code of Signals and Standard Marine Navigational Vocabulary should be used.
- On assuming the duty, the OSC should inform the appropriate CRS or ATS unit and keep it informed of developments at regular intervals.
- The OSC should keep the SMC informed at regular intervals and whenever the situation has changed.

♣ Planning the Search

Datum

- It will be necessary to establish a datum, or geographic reference, for the area to be searched. The following factors should be considered:

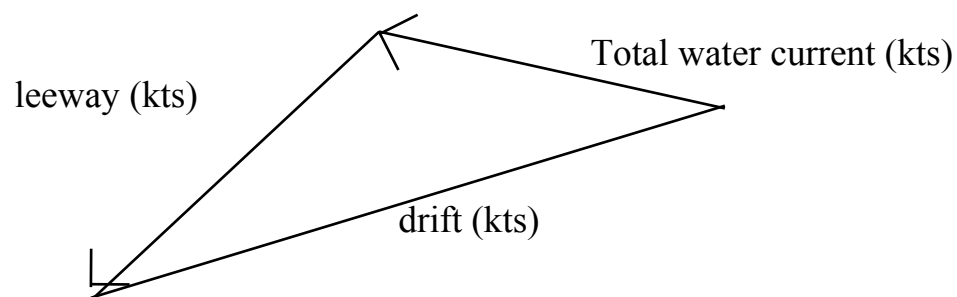
reported position and time of the SAR incident
any supplementary information such as DF bearing or sightings
time interval between the incident and the arrival of SAR facilities
estimated surface movements of the distress craft or survival craft, depending on drift (The two figures following this discussion are used in calculating drift.)
The datum position for the search is found as follows:

- drift has two components: leeway and total water current
- leeway direction is downwind
- leeway speed depends on wind speed

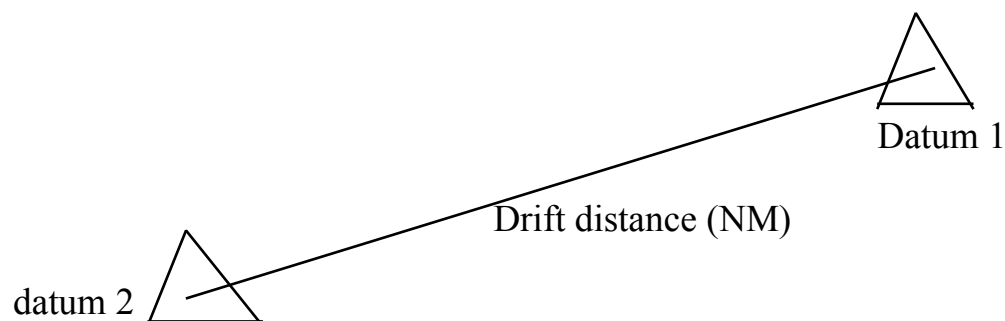
- the observed wind speed when approaching the scene may be used for estimating leeway speed of liferafts by using the graph following this discussion (Persons in the water (PIW) have no leeway while liferaft stability and speed vary with or without drogue or ballast.)
- total water current may be estimated by computing set and drift when approaching the scene
- drift direction and speed is the vector sum of leeway and total water current

drift distance is drift speed multiplied by the time interval between the incident time, or time of the last computed datum, and the commenced search time

datum position is found by moving from the incident position, or last computed datum position, the drift distance in the drift direction and plotting the resulting position on a suitable chart.



Computing drift speed and direction from total water current and leeway.



determining a new datum
(drift distance = drift speed X drift time)

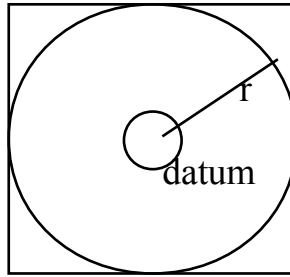
- **Plot the Search area:**

draw a circle centred on datum with radius R.

using tangents to the circle, from a square as shown below

if several facilities will be searching at the same time, divided the square into sub-areas of the appropriate size and assign search facilities accordingly.

Most probable area

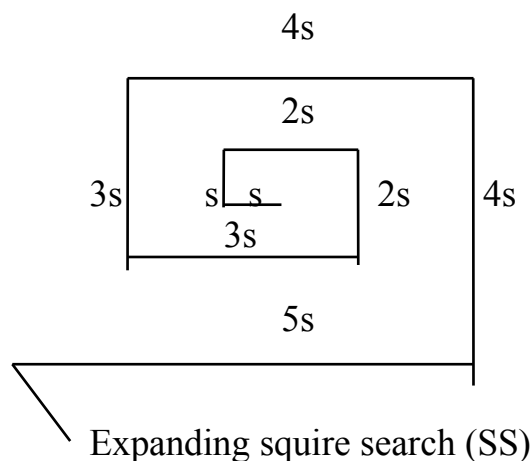


Use $r = 10$ miles for initial area

■ Search Patterns

Expanding Squire Search (SS)

- Most effective when the location of the search object is known within relatively close limits.
- The commence search point is always the datum position.
- Often appropriate for vessels or small boats to use when searching for persons in the water or other search objects with little or no leeway.
- Due to small area involved, this procedure must not be used simultaneously by multiple aircraft at similar altitudes or by multiple vessels.
- Accurate navigation is required; the first is usually oriented directly into the wind to minimize navigational errors.
- It is difficult for fixed-wing aircraft to fly legs close to datum if S is less than 2 NM.



Sector Search (VS)

- Most effective when the position of the search object is accurately known and the search area is small.
- Used to search a circular area centred on a datum point.

- Due to small area involved, this procedure must not be used simultaneously by multiple aircraft at a similar altitudes or by multiple vessels.
- An aircraft and a vessel may be used together to perform independent sector searches of the same area.
- A suitable marker (for example, a smoke float or a radio beacon) may be dropped at the datum position and used as a reference or navigational aid marking the centre of the pattern.
- For aircraft, the search pattern radius is usually between 5 NM and 20 NM.
- For Vessel, the search pattern radius is usually between 2 NM and 5 NM, and each turn is 120°, normally turned to starboard.

■ **FURTHER ACTION ON COMPLETION OF INITIAL PHASE**

- The OSC will normally consider the initial phase to have been completed when, in the absence of further information, searching ships have completed one search of the most probable area.
- If at that stage nothing has been located, it will be necessary for the OSC to consider the most effective method of continuing the search.
- Failure to locate the search object may be due to one or more of the following causing:

ž errors in position owing to navigational inaccuracies or inaccuracy in the distress communications reporting the position. This is especially likely to apply if the position of datum was based on an estimated position using incomplete information

ž an error in drift estimation

ž failure to locate the search object during the search although it was in the search area. This is most likely to occur if the search object is a small craft, or survivors in the water

ž the craft having sunk without a trace. Other than the case of a small ship or craft in rough weather, experience has shown that there are usually some trace, even if only debris or oil patches.

■ **Navigational inaccuracies of Searching Ships**

- This is most likely to apply when navigational fixes cannot be obtained. In this situation, the OSC may:

ž re-search the same area, allowing for added drift during the time elapsed since calculating last datum;

ž expand the most probable area, after allowing for added drift, and search the expanded area; or

ž expand the area more in one direction than another, depending on circumstance and information available.

- Determine a new probable area based upon any additional information received.
- Where information is received to indicate that the original datum was grossly inaccurate, determining an entirely new probable area would be advisable.
- A small search object, which is easily missed in the day time, may become visible at night time if it shows lights, flares, or other pyrotechnics.
- The OSC should, therefore, consider using surface craft at night to re-search areas covered by day.
- It is good practice when searching for survivors in small craft, in survival craft, or in the water, to stop the engines occasionally at night and in restricted visibility by day to listen for cries for help.

■ Evidence of Distressed Craft Found

- In some case, the search may provide evidence of the distressed craft without survivors being found.
- This evidence may provide information for a recalculation of datum and revision of the search area.
- A low-lying, half-sunken loaded ship or aircraft may drift more slowly than a floating survival craft, even if a drogue is used.
- A derelict may drift at a considerable angle off the prevailing wind direction.
- When wreckage is located it usually consists of debris, possibly with an oil slick.
- Should this have come from the distressed craft, survival craft will usually be found downwind from the debris.

Q: Where will you get the information regarding search pattern.

A: In IAMSAR.

EMERGENCIES

V/L AGROUND :

A: Take the con & follow Emergency checklist procedure from International Chamber of Shipping

- 1) Stop Engines
 - 2) Sound general emergency alarm - head count, look for casualty, establish communication inform all department.
 - 3) Close watertight doors, if fitted
 - 4) Order chief officer for damage assessment.
 - Water tight integrity of hull and subsequent breaches of same.
 - Obtain sounding from all tanks, bilge's, hold
 - Condition of machinery space.
 - Details casualties.
 - Any fire risk
 - Any other information regarding associate problems.
 - 5) Maintained VHF watch.
 - 6) Exhibit light / shapes and any appropriate sound signals
 - 7) switch on deck lighting at night
 - 8) Check hull for damage
 - 9) Sound bilge's and tanks.
 - 10) Visually inspect compartments where possible
 - 11) Sound around the ship.
 - 12) Determine which way deep water lies
 - 13) Obtain information on local currents and tides, particularly details of the rise and fall of the tide.
 - 14) Reduce draught of ship.
 - 15) Make Ship's position available to Radio / GMDSS room
 - 16) Broadcast Urgency / Distress message as required.
- Inform local authorities / owner with position, extent of aground, weather, wind, sea, and swell, Condition of hull and machinery, any visible damage, and of the possibilities of re-floating. As well as available assistance, P & I, flag state control, Agent of last and next port of call, coast guard, classification society.
 - As soon as possible report MAIB as stranded.

COLLISION

- Take the con.
- Stop/manoeuvre the ship so as to minimise effects of collision. (leave one v/l embedded to other unless there is a fire risk, explosion or toxic escape from other v/l, which could endanger the safety of your v/l and crew.)
- Sound general alarm.
- Mustering all crew/head count. Establish communication.
- Close water tight door.
- Inform engine room/ other department.
- Order radio officer to standby radio room for obtaining v/l's position
- Deck light on / not under command signal hoisted.
- Order engine room to start pump out from damage compartment.
- Stand by life boat ready to embarkation dk.
- Order chief officer for damage assessment.

1. Water tight integrity of hull and subsequent breaches of same.
2. Obtain sounding from all tanks, bilge's, hold
3. Condition of machinery space.
4. Details casualties.
5. Any fire risk
6. Any other information regarding associate problems.

- If any compartment damaged and ingress of water exist :

1. List the v/l over to raise damage area above water line
2. Build and position collision patch.
3. Co-ordinate pumping out on to effected area

- Transmit URGENCY signal if appropriate
- Transmit DISTRESS signal if appropriate
- {{Investigate safe port operation, and/or beaching situation in order to save the v/l from being totally lost.
- If delaying tactics are not holding the situation transmit the distress signal and order an abandonment to save life.}}
- Calculate damage stability
- Inform owner, P & I, classification society, flag state control, Charterer, Agent of last & next port of call & coast guard.

IMMEDIATE STATUTORY DUTIES :

- Standby for render assistant provided own v/l's and crew safety,

- Exchange information between both the v/l : Name of v/l., Port of registry, Last port call, Next port of call.
- Entry into the OLB.
- Inform MAIB.



GMDSS

Q: What equipment do you have onboard for GMDSS?

A: 1. SART.

2. EPIRB.
3. VHF with DSC ch 70.
4. VHF with ch 16.
5. NAVTEX.
6. INMARSAT.
7. MF/HF.
8. NBDP.
9. Two way Radio telephone.

Q: What check would you carry out on GMDSS equipment?

A: Daily-Printer,
 Paper,
 Power on/off, Battery power supply,
 DSC internal,
 VHF, MF/HF without radiation.

Weekly- DSC external-UK 2187.5 khz
 MF/HF - routine - Channel assign on ALRS Vol-1
 Log-entry.
 VHF- Hand Held Rx/Tx channel other than ch-16.
 Two-way Radio internal
 Emergency Generator.

Monthly- EPIRB- Physical test, HRU, Battery date (max cont. opp. hour-48), Lanyard, readily excessable to life boat/survival craft.
 SART- Physical test in conjunction with 3cm radar, 9.4 Ghz., Battery date (96 hrs stby mode, 8 hrs Tx mode.)
 Emergence battery power supply.- s. gravity, E/lite level, terminal clean.
 Aerials.



Q: What is MAIB?

A: **MARINE ACCIDENT INVESTION BRANCH.**
 Operates independently of MSA, investigates

- 1) Accident at sea and onboard ships
- 2) Dangerous occurrences at sea,

Aim -Determining what caused an accident in order to prevent it from happening again.

- Publishes reports on accidents with recommendations and lessons to be learned.

Duties - defined in the MS regulations 1994.

- Employs a staff of professional and support staff (Inspectors)

The Inspectors

Professional inspectors come from 3 Marine disciplines 1. Nautical. 2. Engineer. 3. Naval architecture. Others from recent seagoing or specialist knowledge. Inspectors are available to travel at short notice to wherever a ship has been involved in an accident.

Investigation:

- **Administrative Inquiry:** for less serious cases where enquires are made by correspondence or telephone, without need for visits
- **Inspector's Investigation:** for more serious case where witnesses are interviewed and ship is visited where that is feasible; and
- **Inspector's Inquiry:** called by Chief Inspector of Marine Accidents in the cases of major accident. This is a very comprehensive investigation, usually carried out by a team of MAIB inspectors.

Q: Define the Accident, Major and Serious Injury, Dangerous Occurrence, and Hazardous Incident?

A: An accident is an undesired event results in personal injury, damage or loss. Accidents include:

- Loss of life or major injury to a person on board or when a person is lost from a vessel;
- The actual or presumed loss of a vessel, its abandonment or material damage to it;
- Stranding or collision;
- disablement and also material damage caused by a vessel.

A major injury means:

- any fracture, other than to the fingers or toes;
- any loss of limb or part of a limb;
- dislocation of the shoulder, hip, knee or spine;
- loss of sight;
- penetrating injury to the eye;
- any other injury leading to hypothermia or to unconsciousness, or requiring resuscitation, or requiring admittance to hospital or to an off-shore sick-bay for more than 24 hours, or if at sea requiring confinement to bed for more than 24 hours.

A serious injury means:

- any injury, other than a major injury, to a person employed or carried in a UK vessel which occurs on board or during access which results in incapacity for more than three consecutive days of the accident; or
- as a result of which the person concerned is put ashore and the vessel sails without him or her, unless the incapacity is known or advised to be of three consecutive days or less, excluding the day of the accident.

A dangerous occurrence

is an incident which might have been liable, taking into account the circumstance, to cause serious injury or to cause damage to the health of any person, and includes:

- any person falling overboard;
- any fire or explosion;
- the collapse or bursting of any pressure vessel, pipeline or valve or the accidental ignition of anything in a pipeline;
- the collapse or failure of any lifting equipment, access equipment, hatch-cover, staging or bosun's chair or any associated load bearing parts;
- the uncontrolled release or escape of any harmful substance or agent;
- any collapse of cargo, unintended movement of cargo sufficient to cause a list, or loss of cargo overboard;
- any snagging of fishing gear which results in the vessel heeling to a dangerous angle;
- the parting of tow-rope;
- any contact by a person with loose asbestos fibre except when full protective clothing is worn.

A hazardous incident

is any incident or event, not being an accident or a dangerous occurrence, by which the safety of ship or any person is imperilled, or as a result of which serious damage to any ship or structure or damage to the environment might be caused.

Q: Reporting of Accidents

A: Accidents must be reported as soon as possible, by the quickest means available. This can be direct to the MAIB by telephone, fax, telex or e-mail, or to any Maritime Safety Agency (MSA) Marine Office or by VHF to HM Coastguard.

Serious injuries and dangerous occurrences must be reported within 14 days, or within 14 days after arrival at the next port if the vessel is at sea at the time of the occurrence.

These reporting requirements apply to merchant and fishing vessels, and sport or pleasure vessels when used commercially. However, other leisure craft skippers or crews may report accidents to the MAIB if they so wish.



Q: Engine break down in mid-Atlantic. TRS expected, One Ship offers assistance but not on LOF. Demands its own condition, What will you do ?

A: As the safety of my crew is prime, I will took his terms and condition under protest which will be monitored by coast radio station and make a OLB entry, This was to protest owner's interest.

Q: What is the general rule, when v/l in danger, about seeking advice instructions from owners ?

A: Always to seek the advice and instructions of the owners, but only if time allows. I should immediately call for assistance from any available source if I think it necessary for the safety of my ship, crew, passengers and cargo.

Q: When several ships of different types and size offer their services, What assistance would you accept?

A: The assistance that seems the most reasonable, taking into account the value of the assisting ships, their ability to perform the salvage services and the amount of their deviation from their intended routes.

Q: Under salvage condition, What consideration should be uppermost in your mind, in addition to any threat to life, your ship or the cargo ?

A: The necessity to avoid or reduce the risk of pollution, i.e. harm to the environment.

Q: In deciding weather to accept salvage assistance, what circumstances would you take account of ?

- A: 1) Safety of personnel. 2) Proximity to the shore or shoal water
3) Weather and sea conditions 4) Current and tide
5) Nature of sea bed and shore line 6) Potential for safe anchoring
7) Availability of assistance. 8) Damage already sustained by ship.
9) Risk of further damage to ship.
10) Prospect of maintaining communications.
11) Threat of pollution and
12) 12) Manpower and material requirements.

Q: If a v/l is in danger, are you, as Master of a nearby ship, under any obligation to save the v/l itself ?

A: No. Shipmasters are under a statutory obligation to save human life only, and to prevent harm to marine environment. The first priority is to decide how to save lives onboard, and then think about protecting the marine environment and finally about saving the ship if circumstances permit.

Q: What would be you considerations as Master before offering a tow ?

A: A v/l requiring a tow is not necessarily in distress. I would therefore carefully consider:

- 1) Weather the contract of carriage gives my vessel liberty to tow.
- 2) Weather I have sufficient reserve (fuel, water, provision) throughout and after tow.
- 3) Weather there is a possibility of missing a cancelling date under the charter party.
- 4) Weather the nature of my cargo permit.

- 5) Machinery is of adequate power and in good enough condition for towing.
- 6) Weather the value of v/l requesting tow, plus her cargo, is likely to be sufficient value to merit a salvage service by my ship.

Q: Having agreed in principal to giving another v/l a tow, What would be your considerations as Master?

- A:
- 1) Has an agreed to salvage under LOF 95 terms bee made ?
 - 2) Has a port of destination / place of safety been agreed ?
 - 3) Have I notified by owners and charter's so that additional hull insurance can be arranged if necessary ?
 - 4) Are proper records of all events and circumstances to date being kept.

Q: What are the difference between the old OLF and LOF 95

A: On new LOF, the claming percentage for salvage have changed from 30% to 100%.



MASTER AND CREW

Q: Two hour before sailing you found 3/E is not on board, as Master what action would you take ?

A: As Master, must ensure that the ship does not proceed to sea unless there is on board a valid Safe manning document and manning of the ship complies with it. There is no provisions for sailing short-handed.

If a 3/E is listed on the SMD, I would not sail until a replacement was found. I would sign the 3/E off is his absence and leave his gear with the agent.

Notify local proper officer, owner and make an OLB entry.

Q: What is the most serious offences under the Merchant Navy Code of Conduct? Or dismissal offence?

A: **Dismissal offence:**

There are: 1) assault

2) Wilful damage to the ship or Property on board.

- 3) Theft, or possession of stolen property
- 4) Possession of offensive weapons
- 5) Persistent or wilful failure to perform duty
- 6) Unlawful possession or distribution on drugs
- 7) Conduct endangering the ship or person on board
- 8) Combination with others to impede the progress of the voyage or the navigation of the ship
- 9) Disobedience of orders relating to the safety of the ship or of any person on board
- 10) Being asleep on duty or failing to remain on duty if this prejudiced the of the ship or any person on board
- 11) Incapacity through drink or drug to carry out duty to the prejudice of safety of the ship or of any person on board
- 12) To smoke, use a naked light or unapproved electric torch in any part of a ship carrying dangerous cargo or stores where smoking or the use of naked light or unapproved troches is prohibited
- 13) Intimidation, Coercion and / or interference with the work of other employees
- 14) Behaviour seriously detracting from the safe and/or efficient working of the ship
- 15) Conduct of a sexual nature, or other conduct based on sex affecting the dignity of women and men at work which is unwanted, unreasonable and offensive to the recipient
- 16) Behaviour seriously detracting from the social well-being of any other person on board
- 17) Causing or allowing unauthorised persons to be on board whilst at sea
- 18) Repeated commission of lesser breaches after warnings have been given.

Q: What are the lesser offences?

- A:
- 1) Not justifying dismissal in the particular case
 - 2) Minor act of negligence, neglect of duty, disobedience and assault
 - 3) Unsatisfactory work performance
 - 4) Poor time keeping
 - 5) Stopping work before the authorised time
 - 6) Failure to report to work without satisfactory reason
 - 7) Absence from the place of duty or from the ship without leave
 - 8) Offensive or disorderly behaviour. Some companies add breaches related to special trading patterns, etc.

Q: How would you deal with an alleged serious breach of the code of conduct that was referred to you?

A: I would deal with it as soon as possible , and in person. I would first convene a formal hearing in my office, with accuser and accused present. I would tell the seafarer that he may be accompanied by a friend who can advise him and speak on his behalf (like a solicitor or counsel in court), and that he (or his fiend) may call any witnesses he chooses and question them on their evidence. When ready to start, I would inform the seafarer of the alleged breach (referring to the particular paragraph and sub-paragraph of the Code of Conduct) and ask him if he admits or denies the allegation. (If he admitted it, there would be no need for any evidence to be called, except in mitigation, or for cross-examination.) I would tell the seafarer he may make any statement he wishes in answer to the alleged breach, including comments on evidence produce against him. I would hear all the evidence (against and for the seafarer) and any cross-examination of the evidence. Then, after considering the evidence, I would orally inform the seafarer whether or not I found that he had committed the alleged breach. If I did so find, I would impose a sanction with I considered reasonable in all the circumstances, taking in to account his record on the ship and any other relevant factors.

Q: What sanctions may you (as master) impose under the Code of Conduct, if you find a seafarer guilty of a breach of the Code?

A: 1) A formal (oral) warning record in the OLB
2) A written reprimand, also recorded in the OLB, or
3) Dismissal from the ship, either immediately (if in a UK or overseas port), or at the next port.

Q: In what circumstances could you arrange for the dismissal of a seafarer and his repatriation to the UK from an overseas port of call?

A: If I found (after a properly conducted hearing) that he had breached of code conduct and I decided that his continued presence on board would be detrimental to the efficient and safe running of the ship or to the maintenance of the ship or to the maintenance of harmonious personal relations on board.

Q: What precautions would you take when holding a hearing of a disciplinary case, to protect the employer's legal position ?

A: I would ensure, especially where dismissal was my chosen sanction, that the hearing was conducted exactly as laid down in the in the code of conduct, i.e. in accordance with the principles of natural justice. I would ensure that I made a formally-announced finding that the seafarer had committed a serious breach of code of conduct and that the man was given copies of all the statements made in the OLB, and that he signed acknowledging receipt of them.

Q: What would you write in the official log book concerning a disciplinary case ?

A: Full detail of alleged breach and the action taken by me in response to it.

Q: What document(s) should an accused seafarer be given

A: A copy of every OLB entry relating to his case and it has to be acknowledge receipt by signing.

Q: What action would you take if a seaman, who appeared to be drunk, complained to you about the food at 2100hrs, while you were watching a video?

A: Ensure the safety of ship, personnel and the seaman himself, if necessary. Find out when he is next on watch (at 2400h). Sober him up - until then he's potential liability to others. Discipline him he's sober, if necessary. His complain may be genuine, but I have no duties to investigate unless there are 3 or more complainants. Make OLB entry.

Q: What action would you take regarding a seaman who was drunk onboard while on duty ?

A: Ensure safety of the ship, personnel and the seaman himself. Remove him from duty and substitute another. Sober him up. Discipline him in accordance with the code of conduct, if practicable . (was he drunk enough to jeopardise safety and personnel ?) The offence may justify dismissal.

Q: What action would you take regarding a seaman who was drunk onboard while off duty ?

A: Ensure safety of the ship, personnel and the seaman himself. If no threat to the safety, take no action beyond an informal caution unless company's, charterer's or ship's rules prohibit alcohol. Perhaps give a D & A tests before he starts work again.

Q: Why should a seaman not be drunk when off duty ? Why caution the man in the above case ?

A: Every person on the muster list should be able to perform his or her duties at any time, whether in port or at sea.

Q: What entries should you make concerning a seaman left behind ?

- A: 1. An entry recording any provision made on the employer's behalf to ensure that the proper officer has been informed of the seaman's leaving behind.
2. An entry recording the date and place of leaving the seaman behind and the reason for leaving behind.

Q: What matter may seaman complain about that are specially provided for in merchant shipping legislation ?

A: Provision and water supplies.

Q: Under what conditions do seaman in a ship have a statutory right to complain to the master, and what is the master required to do about any rightful complain ?

A: If three or more seaman in a ship consider that the provisions or water supplied are not in accordance with regulation (because of bad quality, unfitness for use or deficiency in quantity), they may complain to the master. The master must investigate the complaint.

Q: Inspection for crew accommodation?

A: At least every 7 days, by master or an officer appointed by him accompanied by.

The master must cause an entry to be made in the OLB, regarding

- 1) The time and date of the inspection
- 2) The name and ranks of the inspectors and
- 3) Particulars of any respect in which the accommodation or any part of it was found by either inspector not to comply with the regulations.

To be inspect for:

- 1) Crew accommodation is maintained in a clean and habitable condition.
- 2) All equipment and installation required by the regulations is maintained in good working order.
- 3) All crew accommodation, except store room, is kept free from stores and other property not belonging to or provided for the use of the crew.
- 4) Cargo is not kept in any part of the crew accommodation and

- 5) Accommodation provided under the regulations is not used by passengers.

ARRIVAL AND DEPARTURE.

Q: Under what circumstances would you decide to make for a port of refuges?

A: When it becomes unsafe to continue the voyage for any reason, e.g. a dangerous shift off cargo; an unextinguishable fire; after suffering serious hull damage (e.g. from grounding, collusion, heavy weather, loss painting); a main machinery failure not repairable at sea; loss of propeller or rudder.

Q: Who would you inform that you are making for a port of refuge, and what requests would you make to these parties?

A: Owners; Charterers; agent at original destination port. I would request owners to nominate an agent for me to contact at the port of refuge, and the P&I club correspondent. Owners would contact the classification society surveyor. On contacting nominated port agent, request him to notify relevant official (port state administration, harbour authority, customs, immigration, port health, etc).

Q: Your ship is 2 hours from the pilot station. What general preparations would you make for arrival in port?

A: Pre-arrival checks (anchors cleared, test engines astern, E/S running, navigational gear all working, parallel indexing). Make pilot boarding preparations. Send pre-arrival messages. Check port entry publications. Close the bonded store. Have all customs declaration forms (if on board) and stores list, crew lists, etc. completed. Have proper courtesy ensign ready.

Q: What messages would you send before arriving at a port on a large ship?

A:

1. ETA to the agent, with a request for berth details, crew relief arrangement, etc. and giving requirements for cash, provisions, bunker, FW, etc.
2. request for boatmen/linesmen, also to agent

3. request for a pilot-sometimes made direct to a pilot station or harbour authority, or via agent (check admiralty sailing directions for appropriate method)
4. notification to Port health authority of any circumstances requiring the attention of the Port Medical Officer. (At a UK port the message must arrive 4-12 hours before the ship.) I would also show health clearance signals.
5. confirmation to port authority that all equipment is in good working order before entering port limits (usually made by VHF when near fairway)
6. if carrying dangerous goods or polluting goods, a check list for vessels carrying dangerous or polluting goods
7. I would check the charterparty for any special instructions about messages to be sent. Request for tug(s) might be in conjunction with pilot request.

BUNKERING

Q: If your vessel was on a time charter for 6 months, which party would be responsible for purchasing bunker fuel ?

A: The time Charterer.

Q: What precautions would you take where the time charterer is buying bunkers?

A: I would check that he was ordering fuel of the correct specification. The specification should have been agreed between the owners and charterers and should be listed in the C/P.

Q: What precautions would you take when ordering bunkers to protect the owners' interests as far as bunker quality was concerned?

A: In consultation with Chief Engineer, I would check the engine operation manuals, and if on time charter, the bunker clause. I would order the bunkers specifying an approval fuel standard, e.g. 'BSMA 100' rather than specifying only a type and viscosity, e.g. 'IFO 180' I would have the C/E check that bunkers presented for loading match the ship's requirements and specification ordered. I would have the C/E make accurate tank sounding before commencing bunkering in order to verify the amount delivered. I would have the C/E make a compatibility test to confirm that bunker presented are compatible with fuel already on board and see that bunker are loaded into empty tanks if possible, and kept separate from the other bunkers until any analysis had been completed. I would also see that the vessel is, so far as possible, maintained upright and on even keel throughout the bunkering operation, and that samples of oil loaded were taken at regular intervals at the manifold.

Q: What other precautions would you take when bunkering?

A: I would that local and international regulations are complied with throughout the operation; that scupper are fitted before commencing bunkering; that drain plug in manifold and fuel tank air pipe containment save-alls are in place before commencing bunkering; that the communication are established with the supply control position and signal to be used are understood by both side; that a maximum pumping rate and pressure are agreed with the supplier; that the condition of hoses and couplings is checked before (and after) bunker; that blanks and number of required nuts and bolts, etc. are checked before

bunkering; that the required hose lengths (allowing for ranging of vessel) are checked before bunkering; that valves are in the required positions before bunkering and that tank vent pipe are free from obstruction; that barge or shore tank soundings and/or meter reading are checked before (and after) bunkering to help avert any problems concerning quantity; that frequent soundings are taken during the bunkering operation; that the rate of delivery is slowed down while topping off; that ample warning is given to the supplier to reduce the delivery rate and final shutting off; that accurate sounding of tanks are taken after bunkering and compared with pre-loading soundings to determine the quantity delivered; and that the Oil Record Book, and deck and engine room log book are completed immediately bunkering with accurate details of the operation.

Q: What are the possible consequences of not having proper procedures for bunkering operation?

- A:
1. Harbour pollution
 2. a fine on the owners/operators
 3. a fine on me as master
 4. detention of my ship
 5. an adverse effect on owner's deductibles and standing with their P & I club.
 6. loss of ISM certification.

Q: What action would you take if a spillage occurred during bunkering?

- A: I would take immediate steps to:
1. Stop the bunkering operation
 2. minimize the spread of the oil in the harbour, taking all possible action to contain the spillage until shore assistance arrives, but without using any dispersants for which approval had not previously been obtain
 3. stop any hot work on board or nearby vessels and quays
 4. contact harbour authorities (on VHF if possible); ship's agent; P & I club correspondent; owners/managers;
 5. make statutory report to MAIB and coastal state administration
 6. obtain samples of the oil from which the spillage came
 7. establish the facts and (before investigators arrive, if possible) write a full report of the occurrence, stating all efforts taken by the ships crew to deal with the spillage
 8. attempt to establish the quantity of oil spilled. Together with my officers and crew I would work closely with the local authorities in the clean-up operation.

Q: What arrangements would you expect the Chief Engineer to make for taking bunker sample?

A: I would expect the C/E to take at least two samples during the bunkering. If the vessel carries onboard fuel test kit, the C/E should carryout a sport analysis and , if this indicate the fuel is unsuitable, a full analysis should be carried out at an approved shore laboratory before the bunker are used. In any event, one sample should be retained on board until all bunkers loaded have been burn without problem, while other should forwarded to an independent fuel analysis service. Sample of oil loaded during bunkering should be sealed, dated and signed by the Chief Engineer and supplier.

ISM.

Q: International Safety Management Code.

A: Definition:

ISM means the International Safety Management Code for the safe operation of Ships and Pollution Prevention.

Objective:

- 1) To ensure safety at sea, prevention of human injury or loss of life and avoidance of damage to the environment.
- 2) Provide for safe practices in ship operation and safe working environment.
- 3) Establish safeguards against all identified risks.

Elements:

- 1) Policy: company have to develop a policy for safety and environment protection policy.
- 2) Procedure: Company to establish procedure to ensure safe operation of ships and protection.
- 3) Designated person: Person ashore having direct access to the highest level of management.
- 4) Master Responsibility and Authority:
 - Implementing the safety and environmental protection policy of the company.
 - Motivating the crew in the observation of that policy.
 - Issuing appropriate order and instruction in a clear and simple manner.
 - Verifying specific requirements are observed and
 - Receiving the SMS and reporting its deficiencies to the shore based management.
- 5) Resource and Personnel:
 - Company should ensure master properly qualified and fully conversant with company's SMS.
 - Company should ensure each ship is manned with qualified, Certificated and medically fit seafarers and given proper familiarisation with their duties.
- 6) Shipboard operations: Company should established procedures for the preparation of plans and instructions for key shipboard operations concerning the safety of the ship and prevention of pollution.

- 7) Emergency preparedness: Company should established procedures to identify, describe and respond to potential emergency shipboard situations, and programmes for drills and exercises.
- 8) Non-Conformities & Reportings: When any work goes out of plan. Company should establish procedures for the implementation of corrective action.
- 9) Maintenance of the ship and equipment: Company should ensure inspection held, any Non-Conformity is reported, appropriate corrective action taken and all activities recorded.
- 10) Documentation's: Company should establish and maintain procedures to control all documents and data which are relevant to SMS.
- 11) Internal audit: Company should carryout internal audit to verify all policy implemented.
- 12) External audit: To verify company and ship are working as per SMS.
- 13) Certification: Safety Management Certificate to be given to a ship after audit.

LSA

Q: Life saving appliances for all ship.

- A:
- 1) 3 two-way VHF radio telephone.
 - 2) Radar Transponder-1.
 - 3) 12 rocket parachute flare.

- 4) On board communication (Fixed or portable) between emergency control station, muster and embarkation station, and alarm system and public address system on passenger ship.
- 5) Muster List-Operating instructions.
- 6) Life buoys:

<u>Length of the ship in meters</u>	<u>Minimum no. of life buoys</u>
Under 100	8
100 and under 150	10
150 and under 200	12
200 and over	14

- at least 2 with buoyant life line
- at least ½ with self-igniting lights
- at least 2 with self-activating smoke signals

7) Life jacket

- For adult-100% + 5% extra
- For Children-10% of the number of passenger on board
- Life Jacket for persons on watch and remotely located survival craft.
- Life Jacket shall be fitted with light.

8) Immersion Suit and thermal protective aids:

- At least three immersion suit, and thermal protective aids for person onboard not provided with immersion suit for each life boat. But it is not required if
 - has totally enclose life boats on each side.
 - constantly engage on a voyage in warm climates.

9) Survival craft.

- Totally enclose life boat both side 100%.
- Life raft aggregated 100% when easily transferable from one side to another or 100% each side.
- Horizontal distance if more than 100m from nearest survival craft then another life raft to be place fwd or aft.

10) Rescue boat: one.

11) Training manual.

12) Line throwing appliances: 4 nos.

FFA

Q: Fire protection regulation

A: **For Class 7 vessels**

- **Fire Main:**
Vessel to be fitted with a fire main, water service pipes and hydrants with no other connection other than for washing down.
- **Appliances:**
Sufficient appliances to ensure at least two jets of water to any point from separate hydrants.

- Hoses:
One hoses for every 30m of ship's length (minimum 5). Total length of at least 60% ship's length, Plus one spare hose. (Engine Room extra)
- Hydrant:
Sufficient to produce two jets of water at any point. Each machinery / boiler space to have at least 2 hydrant, one each side, plus one in the shaft tunnel.
- Fire Pumps:
Two fire pumps + one other pumps (general service, ballast or bilge's pump) each capable of producing two jets of water from separate hydrants. If all pumps are in same compartment (usually E. R.) an independently driven emergency fire pumps is required out side that compartment.
- Portable fire extinguishers:
Sufficient extinguisher so that at least one is readily available in any part of the accommodation or service space. Not less then 5 (3 if under 1000t) , spare charges for 50% of each type unless not readily recharged in which case an additional extinguisher of the same type must be provided.
- Fixed Smothering System:
Ships 2000t or over to be provided with fixed gas smothering system for every cargo space. An exemption may be granted if ship only carries bulk cargoes of low fire hazard and the v/l is fitted with steel hatches and all openings to that compartment can be sealed. Ro/Ro cargo space not capable of being sealed to be protected by a fixed water spraying system instead.
- Boiler room:
A fixed smothering system-pressure water, gas or foam. In each boiler space a large foam extinguisher (min.135 litres) or CO₂ equivalent (min. 45 kg). Plus one portable extinguishers plus 0.3m³ sand and a scoop.
- Engine room-diesel
A fixed smothering system-pressure water, gas or foam, and a 45 litre foam extinguisher or a 16 kg CO₂ extinguisher, plus a portable foam applicator unit. Sufficient portable extinguishers (min 2) so that at least one is not more than 10m walking distance from any point.
- Engine room-steam
Sufficient 45 litre foam or 16 kg CO₂ extinguisher to reach any part or a fixed system - water spraying or gas smothering. Sufficient portable extinguishers (min 2) so that at least one is not more then 10m walking distance

from any point. Where such space are periodically unmanned, a fixed system - water spraying or gas smothering.

- Unmanned E.R. (UMS):
Automatic fire detection and alarm system
- Fireman's Outfits:
Over 4000t: 4. 2500t-4000t:3 under 2500t:2
One outfit to be of the air hose type, remainder self contained type.
- Ship/Shore Connection.

For class 7 (T)

In addition to the above:

- Inert Gas system:
Required if tanker over 20,000t and carrying volatile oil; also required if engaged in crude Oil washing.
- Fixed deck foam System:
To provide 50mm foam on deck in no than 15mins. (150mm in machinery spaces / boiler rooms)
- Pump room:
Fixed fire extinguishing system operable from outside compartment.
- Fireman's Outfits:
At least 4. One air hose type, remainder self contained.

For class 1

In addition to class 7 requirements:

- fire detection
Fire patrol system plus manual fire alarm in passenger/crew spaces. Fire detection and alarm system for inaccessible spaces.
- Fire pumps
At least 3 if over 4000t.
- Fire hoses
One for each hydrant.
- Fire Main
Permanently pressurised or readily accessible remote control for pumps.

- Public address System

For all accommodation, public and service space. Special crew alarm system (may form part of general alarm system).

- Portable Extinguishers

On each deck: 2 portable extinguishers within floodable zone below the bulkhead deck. Above that, One portable extinguisher each. One portable extinguisher and asbestos blanket per galley (two of each if galley area more than 45m²). One portable extinguisher per control room (radio room, navigating space, central fire recording space, emergency generator space). In spaces carrying motor vehicles: two extinguishers suitable for oil fires for each 40m of deck space, at least one each side & at least one each access point. In addition, two foam applicators for use in these spaces.

- Fireman's Outfits:

Two fireman's outfits plus two extra outfits for each 80 metres of length of passenger / service space. One to be of air hose type, remainder self contained.

General

- Explosives:

Fire / smoke detection system. No steam smothering.

- Hoses:

Max. length 18m unless breadth of ship exceeds 27m in which case max. length 27m.

- Nozzles:

All nozzles to be dual purpose type.

- Portable fire extinguishers:

liquid : between 9 and 13.2 litres., Dry powder: min 4.5 kg., CO₂: min 3 kg. Max. weight 25.6 kg., Not more than 50% of extinguishers of dry powder.

- Fixed CO₂ Flooding:

Quantity : 30% of largest cargo compartment (45 % if Ro-Ro deck) and 40% Engine room, Min. Rate of flooding (E.R.) 85% of total volume in two minutes (if Ro-Ro deck must provide two thirds of CO₂ within 10 minutes).

- Means of stopping machinery:

To be provide with means of stopping fans, machinery, pumps, etc. from outside of space. Also means of closing skylight, doorway, vents, and other openings from outside the space.

- Fireman's outfit

Outfit to widely separated, and to consist of :

- B.A. Sets
- Portable battery operated safety lamp (3 hrs duration).
- Fireman's axe
- Protective clothing
- Boots and gloves of non conducting material (e.g. rubber).
- Rigid helmet

- Helicopter facilities

Adjacent to landing area:

- Dry powder extinguisher 45 kg
- Foam application system
- CO2 extinguisher 16 kg

- Ro-Ro Cargo Spaces:

Mechanical ventilation system (at least 6 changes / hours). At least 2 portable extinguishers for every 40m length of deck spaces (1 at each access point). Fixed water spraying system (water curtains). Plus 3 water fog application units.

- General Arrangement Plans:

Displayed in public place for guidance of Master and officers. A duplicate set to be stored in a prominently marked watertight enclosure outside the deck house for the assistance of shore fire fighting personnel.

Q: What is requirements for CO2 that you must have to have on board for cargo hold and Machinery space separately?

A: For cargo hold- 30 % vol. of largest cargo hold if carried. 45 % vol. if cargo hold carry vehicles and vehicles are fitted with F. O. tanks and tanks are full of F. O.

For machinery space-40 % vol. of Machinery spaces excluding Engine casing. 35 % vol. of machinery spaces including Engine casing.

Q: Squat?

A: Squat is an increase in draught caused by a vessel travelling through the water at a significant speed with a limited under keel clearance.

Whilst it can occur in relating deep water, it is more pronounced when the depth of the water is less than twice the draft in other words, the under keel clearance is less than the v/l's draught.

There is also likely to be a change in trim since the LCB is likely to change with change of draught, thereby creating a trimming moment.

Factors increasing squat

- 1) High speed (squat $\propto$ speed²)
- 2) High propeller speed
- 3) Deep draught
- 4) Shallow depth of water
- 5) High block co-efficient
- 6) Broad beam
- 7) Narrow channel
- 8) Large trim

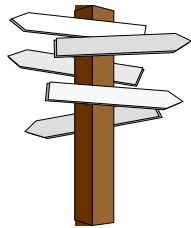
Sign that v/l is experiencing shallow water effect

- 1) Speed decrease
 - 2) R.P.M. decrease
 - 3) vibration may occur
 - 4) Steering may affected v/l becomes sluggish to manoeuvre.
 - 5) Ship made waves increase in amplitude.
 - 6) Ship wake changes colour / become muddy.
- Reduce speed if squat is suspected.

Q: Interaction - Action over taking?

A:

- Establish Communication between Vessels.
- Agreed overtaking procedure. Lead vessel to slow down to reduce interactive forces. Overtaking vessel to speed up so as to reduce the period the vessels are in close proximity to a minimum.
- Select wide and straight section of the channel.
- Select deeper stretch of channel in order to reduce squat and interactive forces.
- Ensure no other traffic in the vicinity.
- Ensure experienced and competent helmsman on wheel who is aware of sudden swings possible due to interaction. Both steering motors on.
- Warn Engine room.
- Ensure maximum distance between vessels whilst overtaking manoeuvre is taking place.



SAFETY OFFICIAL

SAFETY OFFICER :

On sea-going ship on which more than five workers are employed the company required to appoint a safety officer. The master must record the appointment of a safety officer - this should be in the official log book.

Although not prohibited by regulations the appointment of master as the safety officer is not generally advisable. Appointment as safety officer should be avoided to whom the master has delegated the task of giving medical treatment. This is because one of the duties of the safety officer is to investigate incidents, and he would not be able to give proper attention to this function while providing medical treatment for casualties.

DUTIES OF SAFETY OFFICER :

- Safety officer will carry statutory responsibilities for health and safety as per code of safe working practices and as per company's policy.
- The safety officer's role should be a positive one, seeking to initiate or develop safety measures before an incident occurs rather afterwards.
- To improve safety consciousness among the crew.
- The safety officer has a duty to investigate notifiable accidents or dangerous occurrences affecting persons on board ship or during access, as well as potential hazards to health and safety and any reasonable complaints made by any personnel.
- The regulation require safety officer to carry out health and safety inspections of each accessible part of the ship at least once every

three months, or more frequently if there have been substantial changes in the condition of work.

- The safety officer has a duty to stop any work which he reasonably believes may cause a serious accident and immediately to inform master except when emergency action to safeguard life or the ship is being taken.

- To make representations and recommendations to the master and employer about deficiencies relating to health and safety

- To keep a record of all accidents and dangerous occurrences.

SAFETY REPRESENTATIVES :

On every ship on which more than five workers are employed , the company must make arrangements for the election of safety representatives. The regulation specify that no safety representative may have less than 2 years consecutive sea service since attaining the age of 18

The number of safety rep. Who should be elected will vary to the size of a crew. The following ratios are recommended

6 - 15 crew	1 elected by off. and ratings together
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16 + crew	1 elected by the off. and 1 by ratings
-----------	--

over 30	1 elected by the off and 3 by the ratings (i.e. 1 from each from deck, eng. and catering departments, general purpose ratings being included in the deck department)
---------	--

The master must record the election or appointment of every safety representative in writing - this should be either in the official log book or in the minutes of safety committee meeting.

Safety reps should :

- put forward their views and recommendations in a firm but reasonable and helpful manner
- be sure of the fact
- be aware of the legal position
- be conscious of what is reasonably practicable

SAFETY COMMITTEE :

Once safety rep. have been elected, the company must appoint a safety committee. The committee must be chaired by master.

It is desirable that there should be a safety committee on every ship more than five workers, although the statutory requirement only exists on those ships where safety rep. are elected.

The master must record the appointment of a safety committee in writing - this should be in the OLB or minutes of the committee meetings.

It is preferable to appointment as secretary someone other than a safety official, as officials need to concentrate on the discussion rather than on recording it.

Safety committee have a meeting generally on every 4-6 weeks.

PURPOSES :

1. make the ship a better working place
2. finding of the risk assessment and measures for protection in place
3. any other factors affecting the health and safety of those working on ship
4. details of fire fighting, first aid and other emergency procedures.

DUTIES OF SAFETY COMMITTEE :

- to use its best endeavours to ensure the COSWP is complied with
- to improve the standard of safety consciousness among the crew
- to make representations/recommendations on the crew's behalf on health and safety matters
- to inspect SO's record
- to ensure observance and take appropriate action concerning any occupational health and safety matters.

OIL RECORD BOOK (ORB)

Every non tanker of 400 GRT and above , and every tanker of 150 GRT and above must have ORB part I (Machinery space Operation). All tankers of 150 GRT and above must have ORB part II (Cargo/Ballast operation)

The ORB must be preserved for 3 years after last entry has been made. The ORB must be completed on each occasion, on tanks to tank basis if appropriate, Entries must be fully recorded without delay and each completed entries must be sign by the officer in charge of the operations concerned. Each completed page must be sign by the Master.

Entries include- any movement of oil in to ship, within ship and out of ship.

Entries in ORB- Part I - Machinery space Operation- All Ship:

- Ballasting or cleaning of fuel oil tanks
- Discharging of dirty Ballast or clean water from fuel oil tanks
- Collection and disposal of oil residue (sludge)
- Non-automatic discharge over board or disposal otherwise of bilge water which has accumulate in machinery space.
- Automatic discharge over board or disposal otherwise of bilge water which has accumulate in machinery space.
- Condition of oil discharge monitoring and control system.
- Accidental or other exceptional discharge.
- Bunkering fuel or bulk in lubricating oil.
- Additional operational procedure or general remarks.

Entries in ORB- Part II- Cargo/Ballast Operation-Tankers:

- Loading of oil cargo
- unloading of oil cargo
- Internal transfer of oil during the voyage
- Crude oil washing (COW tankers only)
- Cleaning of cargo tanks
- Ballasting of cargo tanks.

- Discharging Dirty ballast.
- Discharging of Clean ballast contained in the Cargo tanks
- Ballasting of dedicated clean ballast tank. (CBT tankers only)
- Discharging of ballast from clean ballast tank. (CBT tankers only)
- Discharge of water from slop tanks in to sea.
- Disposal of residual and oily mixtures no otherwise required
- Condition of oil discharge monitoring and control system.
- Accidental or other exceptional discharge.
- Additional operational procedure or general remarks.

For vessel engaged in specific trade

- Loading of ballast water.
- Re-allocation of ballast water within the ship
- Ballast water discharged to reception facility.

REGULATIONS GOVERNING DISCHARGE OF OIL.

Machinery space:

- The ship not within a special area.
- The ship is proceeding enroute
- The oil content of the effluent without dilution does not exceed 15 ppm.
- The ship has in operational:
400 to 10,000GRT -an oil filtering equipment.

Above 10,000 GRT - an oil filtering equipment and with arrangement for alarm and automatic stopping any discharge of oily mixture when the oil content of effluent exceed 15ppm.

Tankers:

- The tankers is proceeding on a voyage
- The tanker is not within a special area.
- The tanker is more than 50 miles from nearest land
- The instantaneous rate of discharge of oil content is not more than 30 litres per nautical mile.
- The total quantity of discharge is not greater than 1/30,000 of the total quantity of the particular cargo of which the residue formed a part, or in case of existing tankers (before 1980), the total quantity of discharge is not greater than 1/15,000 of the total quantity of the particular cargo of which the residue formed a part
- The tanker has in operation an oil discharge monitoring and control system and slop tank arrangement.

(Clean ballast and processed bilge water (Max 15 ppm) can be discharged within a special area)

Certificate:

International Oil pollution prevention Certificate (IOPP).

Required by non-tankers of 400 GRT or more and tankers of 150 GRT or more
Validity 5 years. Can be extended 5 months.

Issued by MCA (flag state admin.) or Classification society. Surveys may be carried out by classification society on behalf of MCA. Initial survey must be done by MCA.

Surveys required:

- Initial
- Annual
- Intermediate
- Periodic/Renewal.

Must be accompanied by “Record of construction and equipment”.

UKOPP:

As above for UK ship on domestic voyages between ports and terminals in the UK.

Oil pollution Insurance Certificate (OPIC)

Issued by MCA.

Valid for 1 year and cannot be extended.

Required by ships carrying more than 2000 tonnes of persistent oil in bulk as cargo.

No surveys required (only proof of insurance cover).

SHIPBOARD OIL POLLUTION EMERGENCY PLAN
(SOPEP):

Every non-tanker of 400 GRT and above and every tanker of 150 GRT and above must have a SOPEP in the form a manual.

SOPEP is the summarise flow of chart or checklist to guide the master through the various actions and decisions required in responding to an incident. It should assist the ships crew when dealing with an accidental discharge of oil into the sea. Its primary purpose is to set in motion the necessary actions to stop or minimise the discharge and to reduce its effects on the marine environment.

SOPEP is required by regulation 26 of annex 1 of International regulation for prevention of pollution from ship, 1973. Plan must be approved in accordance with this regulation.

The guidelines are comprised of three primary section:

1. Introduction.
2. Mandatory provision.
3. Non Mandatory Provision.

1. Introduction:

Provide general over view of the subject matter and introduce the reader to the basic concept of the guidelines. The plan are expected to be develop by them.

2. Mandatory provision:

To ensure that regulation 26 of annex 1 are met.

3. Non mandatory provision:

Provide other information of the plan. Not required by the regulation. May be required by the local port visited by the ship. It provide additional assistant to the Master when responding in an emergency situation. Also provides on guideline on updating and exercising of the plan.

▪Plan must be:

1. Realistic, practical and easy to use.
2. Understood by ship personnel and shore personnel.
3. Evaluated, reviewed updated regularly.

▪Mandatory provision:

1. Procedure to be followed by the master or other person having the charge of the v/l to report an oil pollution incident.
2. List of authorities person to be contacted in the event of an oil pollution incident.
3. A details description of action to be taken immediately by persons onboard to reduce or control the discharge of oil following the incident.

4. Procedure and point of contact on the ship for co-ordinating ship board activities with national and local authorities in combating the pollution.

▪Coastal state report:

convention require that the nearest coastal state should be notified of actual or probable discharge. This required to ensure that coastal states are informed without delay of any incident giving rising of pollution, or threat of pollution of marine environment, as well as of assistance and salvage measures, so that appropriate action may be taken.

▪Actual discharge:

1. A discharge of oil due to damage to the ship or its equipment or for purpose of securing the safety of a ship or salving life at sea.

Or

2. Discharge during operation of the quantity or instantaneous rate permitted under the present convention.

▪Probable discharge

Plan should give the master, guidance to evaluate a situation which, not involving actual discharge, would qualify as a probable discharge and thus report.

Report should be made in the following factors:

1. Nature of damage, failure or breakdown of ship, machinery equipment.
2. Ship location and proximity of land or other navigational hazards.
3. Weather, tide, current and sea state.
4. Traffic density.

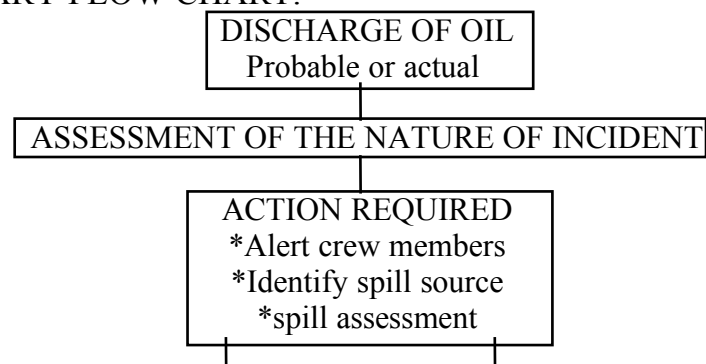
▪List of person to be contact:

1. Coastal state control.
2. Port state control.
3. Ship interest contacts.

▪Guideline to steps to control discharge:

1. Operational spells
2. Pipe line leakage.
3. Hull leakage.
4. Tank overflow.

SOPEP-SUMMARY FLOW CHART:



REPORTING	ACTION TO CONTROL DISCHARGE	
By Master and / or designated crew member	Measure to minimise the escape of oil threat to the marine environment	
WHEN TO REPORT All probable and actual spills HOW TO REPORT *By quickest means to coastal radio station *Designated ship movement reporting station or *Rescue Co-ordination (at sea) *By quickest available means to local authorities & WHO TO CONTACT *Nearest coastal State *Harbour and terminal operators (in port) *Shipowner's manager/P & I insurer *Head charterer; cargo owner *Refer to contact lists cargo WHAT TO REPORT *Initial report *Follow-up reports *Characteristics of oil spilled *Cargo/ballast/bunker dispositions *Weather and sea conditions *Slick movement *Assistance required -salvage -Lightening capacity -Mechanical equipment RESPONSE -External strike team -Chemical dispersant / degreasant	NAVIGATIONAL MEASURES *Alter course/position and / or speed *Change of list and/or trim *Anchoring *Setting aground *Initiate towage *Assess safe Haven requirements *Weather/tide/swell forecasting *Slick monitoring *Record of events and Communications taken	SEAMANSHIP MEASURES *Safety assessment and precaution *Advice on priority countermeasures/ preventative measures *Damage stability stress considerations *Ballasting / deballasting *Internal cargo transfer operations *Emergency ship to ship transfer of and / or bunker *Set up shipboard response for: -leak sealing -Fire fighting -Handling of shipboard response equipment (if avail) -etc.
STEPS TO INITIATE EXTERNAL		
* Refer to coastal Port State listings for local assistance * Refer to ship interest contact list * External clean-up resources required		

Q: GARBAGE MANAGEMENT PLAN.

Every ship of 400GRT or more, and every ship certified to carry 15 persons or more shall carry a GMP. It should be written in working language of crew and must be in accordance with IMO guidelines. Each GMP will be individual to a particular ship.

It must include written procedure for:

- Designated person in charge of carrying out the plan
- Procedure for collecting garbage
- Procedure for separating garbage

- Procedure for processing garbage
- Procedure for disposing garbage

GARBAGE RECORD BOOK

Every ship of 400GRT or above, every ship certified to carry 15 persons or more engaged in voyage to port or offshore terminals under jurisdiction of other parties to the convention must maintain a GRB.

Entries can be made both in the official language of the flag state administration and English or French. Each entries shall be signed by the officer authorising the operation. Each completed page signed by the Master. It must be preserved for 2 years after the date of last entry.

Master shall obtain receipt from the operator or the port reception facilities, or from the master of the ship receiving the garbage. The receipts or certificates must be kept onboard the ship with GRB for 2 years.

Columns in the GRB include:

- Date / time
- Position of the ship
- Estimated amount discharge into sea
- Estimated amount discharge to reception facilities
- Estimated amount incinerated
- Certification/Signature.

For the purpose of the GRB, garbage is grouped into categories, e.g.

1. Plastics
2. Floating dunnage, lining or packing material
3. Ground down paper products, rags. Metal, bottles, crockery, etc.
4. Unground paper products, rags, metal, bottles, crockery, etc.
5. Food waste
6. Incinerated ash.

PLACARDS (GARBAGE)

Every ship of 12m or more in length overall shall display placards which notify the crew and passengers of the disposal requirements. These should be official language of the flag state administration.

GARBAGE DISPOSAL REGULATIONS

Outside special area

- No plastic may be disposed of anywhere
- Dunnage, lining and packing materials which will float may be disposed of 25 nautical miles or more from the nearest land
- Unground or uncomminuted food waste and all other unground or uncomminuted garbage including paper products, rags, glass, metal, bottles, crockery and similar refuse may be disposed of 12 nautical miles or more from the nearest land.
- Ground or comminuted food waste and all other ground or comminuted garbage including paper products, rags, metal, bottles, crockery and similar refuse may be disposed of 3 nautical miles or more from the nearest land.

Inside special areas:

- No garbage other than food waste may be disposed of
- food waste may be disposed of, without grinding or comminution, only where disposed is as far as practicable, and no case less than 12 nautical miles from the nearest land
- In wider Caribbean Region, food waste comminuted or ground may be disposed of 3 nautical miles or more from the nearest land.

Within 500m of fixed or floating Platforms:

- The disposal into the sea of any garbage from a ship which is a fixed or floating platform engaged in exploration, exploitation and associated offshore processing of seabed mineral resource, or from any ships alongside or within 500m of such a platform, is prohibited provided that food waste which have been comminuted or ground may be disposed of into sea from such platform or ship if the platform in the question is more than 12 nautical miles from the nearest land.

(comminuted means able to pass through 25mm opening of a screen.)



Q: Why do you correct a compass?

A: As because the compass is most reliable equipment, which need not any power. In case of gyro failure compass can be used to steer the vessel for reach the next port.

Q: Order of placing correctors?

A: The correct order of placing the correctors is as follows.

1. Flinder's Bar

The Flinder's Bar acts a bit like a sphere forward of the compass bowl. It also affects heeling error, and can be magnetised with the fore and aft and the athwartships magnets. The heeling error magnets often induce poles in the top of the flinder's bar, causing coefficient Permanent B. It is important that the Flinder's Bar is positioned before the spheres, and all the permanent magnets.

2. Spheres

The spheres cause (and help to correct) heeling error and are affected by the permanent magnets. It is important that the spheres are positioned before the permanent corrector magnets are finally placed.

All soft iron correctors should be in position before final adjustment of the permanent corrector magnets.

3. Heeling error magnets.

The heeling error magnet causes Coefficient Permanent B by inducing the Flinder's Bar, so it is important that the heeling error magnet is positioned before the horizontal fore and aft corrector magnets.

4 & 5. The fore and aft magnets and the athwartship magnets are done last and can in any order. It is probably best to correct the larger of the two coefficients first which steadies the card and makes the other correction easier to do. Coefficient B is usually the larger so the fore and aft magnet is usually positioned before the athwartship corrector magnet.

Q: When will you adjust compass?

A: Magnetic compasses should be adjusted when:

- a) they are first installed;
- b) they become unreliable;
- c) the ship undergoes structural repairs or alterations that could affect its permanent and induced magnetism.
- d) electrical or magnetic equipment close to the compass is added, removed or altered; or
- e) a period of two years has elapsed since the last adjustment and a record of compass deviations has not been maintained, or the recorded deviations are excessive or when the compass shows physical defects.

Q: Ship laid up for what will you check before a swing?

A: Before swing the v/l I will check:

- 1. The vessel must be upright and all derrick, cranes, boats, etc. should be in their seagoing position.
- 2. Test the compass for friction by deflecting it slightly with a magnet and see that it returns to its original position, without sticking. This is best done by taking the bowl ashore.
- 3. Check the lubber line for fore and aft accuracy
- 4. Check the accuracy of the azimuth mirror

5. All movable gear near the compass must be in the seagoing position. No loose metal should be near the compass. If spare corrector magnets are being used, they must be placed as far away from the compass as is reasonably possible.
6. No ship within the 3 cables
7. Soft iron correctors should be tested for retained magnetism by rotating the spheres and end for ending the top piece of flinders bar. Residual magnetism may be removed by annealing (heating to 700° and cooling slowly).

Q: What happened to compass once it is corrected?

A: It becomes more reliable.

Q: You have join a ship, where you will get information regarding compass and correctors?

A: Deviation card.

Q: Why wooden pieces under flinders bar?

A: To keep the top of the flinders bar above the level of the compass magnet.

Q: What is VFI? How to use it?

A:

Q: What would you expect the compass adjuster to check?

A:

Q: When flinder's bar up set?

A:

Q: How will you checked flinder's bar and kelvins ball become a semi permanent magnets?

A:

Q: What is the normal position of kelvin's balls?

A: In the centre of the track, equidistant from the compass bowl on either side.

Q: What is directive force?

A:

Q: When to lower and rise the heeling error bucket?

A:

Q: What is ship multiplier?

A: Difference between directional force at ship with spheres and directional force ashore is called ships multiplier (λ_2).

Q: Your Company is going to take over a new ship, there are lot of electronic equipment to be fitted in the bridge, how you make sure this equipment are correctly positioned?

A: Check the compass safe distance on each equipment, place as far away but not less than the quoted safe distance by maker's.

Q: How these equipment are going to influence the compass?

A: By creating a magnetic field.

Q: Which Certificate covers compass?

A: Safety Equipment Certificate. (Makers name, Serial no. etc.)

Q: How do you find magnetic heading after taking bearing from 8 heading?

A: Take the bearing from 8 different heading (N, NE, E, SE, S, SW, W, NW) add them together then divided 8.

Q: How do you put corrector for adjusting coeff. B and C

A: For Coefficient +B, Corrector red to the Fwd.
 For Coefficient -B, Corrector blue to the Fwd.
 For Coefficient +C, Corrector red to the starboard.
 For Coefficient -C, Corrector blue to the starboard.



Q.1 : What ship certificate would you expect to find on:

- a) a 1590 GRT mini-bulker?
- b) a 900 GRT oil-rig supply vessel carrying bulk brine?
- c) a 15000 DWT chemical tanker?
- d) a 200000 DWT crude oil tanker built in 1980?
- e) a large cruise liner?

A: Common :

COR, SCC, SEC, SRC, IOPPC, ILLC, ITC, DOC, SMC, SMD.

- a) Same as common
- b) International pollution prevention cert. for the carriage of noxious liquid substance in bulk
- c) COF
- d) OPIC
- e) COR, PSSC, IOPPC, ILLC, ITC, DOC, SMC, SMD

Q.2 : a) In what circumstances must you send a navigating warning?

b) Who must you to address to?

c) By what means must you transmit it?

A:

- a) 1. Dangerous Ice
- 2. Dangerous derelict or other direct danger to navigation.
- 3. Tropical storm.
- 4. Subfreezing air temperature plus gale force winds causing severe ice accretion.
- 5. Wind > force 10 for which have no warning.
- b) To ships in the vicinity and nearest CRS.
- c) By every means of ship communication system.

Q.3: What is the different between an IMO-adopted an unadopted Traffic Separation Scheme?

A: IMO-approved schemes are adopted. They come into force 6 months after adoption. Rules for navigation in these schemes are as per COLREG rule 10. Unapproved schemes may lie totally in national waters and are unadopted. Rules for navigation in these schemes may differ from rule 10.

**Q.4: a) Where do you find a list of all TSS, both adopted and unadopted?
b)How can you ensure that this list is up-to-date?
c)In what other publications is information published about TSS?**

A:

- a) Annual Notice NO. 17 in the annual summery of Notice to Mariners. Unadopted scheme are marked in the list within asterisk.
- b) By correcting it from Weekly notice to Mariners
- c) Rule 10; Mariner's Handbook; Ship' routing; Routing chart (e.g. 5500); Annual Summery of Notice to Mariners; Pilot Books; Weekly Notice to Mariners.

Q.5: After abandoning your ship during a major fire, and having been rescued by another ship, what action you would take?

A: I would request the rescuing ship's master to cancel the May day and send a navigational warning (e.g. if my ship was still burning and NUC). I would make a tally of survivors and report to the coastguard. I would report to owners and MAIB a.s.a.p. (through the coastguard if necessary.) I would request owners to notify the agent at the original port of destination, as well as charterers and receivers. I would inform the P & I club's correspondent at the port where the rescuing ship takes the survivors. I would prepare reports for owners and MAIB. (The P & I club and charterers may also want copies.)

Q.6: What action would you take if, on joining a ship that was not due for its Safety Equipment survey for another six months, you found that some aspect of the lifesaving or fire fighting appliance were not in good order?

A: Either make good the defects before sailing or apply to MCA for a general inspection and get MCA's written approval to sail. Unless defects are serious enough to warrant detention, MCA will probably issue a letter of compliance.

Q.7: When you must steering gear be tested?

A: The Master must, within 12 hours before departure of the ship, cause the steering gear to be checked and tested so as to ensure that it is working satisfactorily.

In the case of ship regularly making more than one voyage a week to or from the same port a check and test of the steering gear need only be made once in that week unless a part of the steering gear or its control system has been eliminated or changed since the last test.

Emergency steering gear must be tested at least every 3 months.

Q.8: While on a 1-year Time Charter, running between the Persian Gulf and Japan, your Safety Equipment Certificate becomes due for renewal in one month's time. What action would you take?

- A:
1. Inform owner to arrange surveyor.
 2. Keep everything presentable to the surveyor.
 3. Inform agent.

**Q.9: a) What purpose of an OPIC certificate?
b) When it is to be produced by a master?
c) How is an OPIC certificate obtain?**

A: a) To certify that there is in force in respect of the ship a policy of insurance or other financial security satisfying the requirements of Article VII of the international Convention on Civil liability for Oil Pollution Damage 1969 (the CLC).

- b) On arrival at and departure from any port or terminal, to Customs (in UK) or any state or harbour official requesting it.
- c) By application of the owners to MCA London Regional Marine Office (Orpington, Kent), enclosing documentary proof that an insurance policy exists. Proof is normally shown by a blue certificate issued by the owners P&I club.

Q.10: What OLB entry must be made on the change of Master?

A: 1. The off-going Master should make an entry (Entry no. 4) in the narrative section to the effect that he has delivered to me (in coming master) all documents relating to the ship and the crew, and both he and I would sign this entry.

2. I would add my name and certificate number to the list on the front cover.

Q.11: Who would you inform after:

- a) spilling bunkers in a foreign port?**
- b) sustaining collision damage at sea in way of a bunker fuel tank?**

A: a) Coastguard ; Agent ; owner ; P & I club ; MAIB ; Port authority.
b) Coastguard : Owner ; P & I club ; MAIB ; Classification society ; Charterer.

Q.12: What are the contents of an International Tonnage Certificate?

A: Ship's particulars; Length; breadth and Moulded depth; Gross tonnage and net tonnage.

Q.13: What survey or inspections are required by Load line legislation?

A: 1. Initial
2. Annual
3. Intermediate
4. periodic

Q.14: What items come into the scope of the load line periodic inspection?

A: 1. Load line mark
2. Ship's structures and fitting for water tight integrity (hatch way, side opening, vents, air pipe, freeing ports)
3. Crew protection.

Q.15: What is a classification Society?

A: An international Classification society has been defined as an independent, non-profit distributing organisation which develops and updates adequate publish rules, regulations and standards for the safe design, construction and periodical maintenance of ship which are capable of trading internationally, and implements these on a world wide basis using its own exclusive staff.

Q.16: What is the purpose of ship classification?

A: It is a requirements of hull and machinery insurance, P & I clubs, ships financiers and cargo insurers. It also useful in sale and purchase

Q.17: What are you legal obligations on receiving a May Day signal from a nearby ship?

A: Acknowledge received of message and proceed with all speed for assistance, and if possible inform parties and SMC.

**Q.18: a) When are you released from obligation?
b) What OLB entries must be made concerning distress signal?**

A: a) 1. On learning that my vessel is not requisitioned and or more ship have been requisitioned and are complying with the requisition.
2. Being informed by the persons in distress or by the search and rescue service or by the master of another ship which has reached such persons that assistance is no longer necessary.
b)

Q.19: What SOLAS certificate would you expect to find on your next ship?

A: 1. PSSC.
2. SCC.
3. SEC.
4. SRC.

**Q.20: What action would you take regarding a seaman who was drunk:
a) On duty?
b) Off duty?**

A: a) Ensure the safety of the ship, personnel and the seaman himself. Remove him from the duty and substitute another. Sober him up. Discipline him in accordance with the MN Code Conduct, if applicable.(was he drunk enough to jeopardise safety of ship and personnel?) The offence may justify dismissal.
b) Ensure safety of the ship, personnel and seaman himself. If no threat to safety, take no action beyond an informal caution unless company's, charterer's or ship's rules prohibit alcohol. Perhaps give a D & A test before he starts work again.

**Q.21: a) Under what circumstances would you note of protest?
b) How would you note of protest?
c) What is meant by 'extending Protest'?**

A: a) After every case of General Average; after wind and/or sea conditions have been encountered which may have damaged cargo; after wind and/or sea

conditions have been encountered which caused failure to make a cancelling date; after cargo is shipped in a condition likely to deteriorate during the forthcoming voyage (also, Bs/L should be appropriately claused after consultation of with the shipper and P & I correspondent); after the ship has been damaged from any cause; after a serious breach of the C/P by the charterer or his agent (e.g. undue delay, refusal to load, cargo not a sort allowed by the C/P, refusal to pay demurrage, refusal to accept Bs/L after signing because of clausing by master, sending vessel to an unsafe port, etc.); after the consignee fails to discharge or take delivery of the cargo or fails to pay freight.

b) Go to notary public, or other appropriate person with one or more witnesses from the crew who have knowledge of the facts. Take Official log book, deck log and all other relevant information surrounding the event being protested. Make sworn statement before notary, who entries it register of protests. Obtain at least 3 certified copies of protest (owners, adjuster and ship's file). Pay fee (master' disbursement) and obtain receipt.

c) * Since it is often impossible to ascertain the full extent of loss or damage at the time of noting of protest, an extended protest should be made when the relevant facts have come to light, which may be, for example, when a surveyor's report has been received. It therefore necessary at the time making original protest to 'reserved the right to extend the protest at the time and place convenient'.

* The extended protest document will always be required by an average adjuster when prepare a general average statement.

* Although it is good practice to always extended protest, in the UK it is not legally necessary in order to safeguard owners' interest.

Q.22: Under what circumstances would you write a letter of protest?

A: When cargo is being loaded too fast or too slow; when stevedores are damaging ship or mishandling ship's equipment; when wash from harbour craft is causing problems for ship; when cargo specification is 'wrong'. When there is discrepancy between ship's and shore cargo figures; when berth or fendering arrangements are inadequate; when longshoremen/dockers are misusing ship's equipment and ignoring duty officers' advice; when passing vessels cause ranging, wash damage, etc. whilst loading / discharging; in any other situation where the master wishes to formally record his dissatisfaction with arrangement over which the other party has some control.

Q23: What are the offence for which a UK master could be fine up to £ 50,000 on summary conviction?

A:

1. Concealing British Nationality.
2. Causing a ship to appear to British
3. Failing to render assistance to other vessel following a collision.

4. Ship dangerously unsafe in UK port
5. Disobeying "Section 137" government directions following a shipping casualty.
6. Entering or leaving UK port or terminal without a valid OPIC
7. Leaving UK port in contravention of a Detention Order
8. Carrying passing in excess of the number of permitted by the passenger certificate
9. Proceeding against the traffic flow in a traffic separation scheme.

Q.24: What is the difference between summary conviction and conviction on indictment?

A: Summary of conviction is a conviction by magistrates in England or Wales, or a sheriff in Scotland, following a trial in which summary procedure is used. There is no jury, and the judge(s) decide questions of fact and law; their sentencing power are limited. It is used mainly for minor offences. Conviction on indictment is for more serious offence. The conviction is by a jury (of 12 in England or Wales, or 15 in Scotland) who decide questions of fact, while the judge decides question of law only. Fines may be unlimited but prison terms are limited.

Q.25 : What reports would make if you lost a container-load of chemical in drums overside in bad weather ?

A: Navigational warning

Q.26: What is the procedure for reporting to custom on arrival in a UK port from abroad ?

- A:
1. Form c.13 to submit - Master's declaration-at least 2 copies
 2. c.142 - crew declaration-2 copies
 3. submit a cargo declaration, either on the c.13 or by a cargo manifest, IMO form or computer disk (with custom approval)
 4. attach form PAS 15(arr) passenger return if any passengers on board
 5. have several copies of the current crew list ready.

Q.27: When are light dues paid, and on what basis are they calculated ?

A: for outward clearance and on the basis of net tonnage.

Q.28 : Before offering to tow a disable ship, what factors would you consider ?

A: A vessel requiring a tow is not necessarily in distress. I would therefore carefully consider

1. whether the contract of carriage (as contained in c/p or b/l) gives me liberty to tow
2. whether I have sufficient bunkers and/or fresh water on board for the tow, and whether sufficient reserves can be maintained, throughout and after the tow
3. whether there is a possibility of missing a cancelling date under the c/p
4. whether the nature of my cargo permits a lengthening of the voyage (which is especially relevant aboard a refer)
5. whether my v/l's machinery is of adequate power and in good enough condition for towing
6. whether the value of the v/l requesting the tow, plus her cargo, is likely to be of sufficient value to merit a salvage service by my ship

Q.29: a) In what circumstances might an Interim Certificate of Class be issued?

b) What are the contents of an Interim Certificate of Class?

A: a) When a Classification society surveyor can confirm to his society's committed that repairs or surveys have been carried out to his satisfaction, and that he consider the ship to be in a fit and efficient condition to continue her voyage.

b) A summary of class and statutory surveys held or work carried out, with status (e.g. complete); the date of completion of the survey or work (for the class record); a list of any items credited for the hull and/or machinery special survey; the survey's recommendation to his society for continuance of class; any condition of class imposed; any condition of class deleted; surveyor's signature, port and date.

Q.30: What action would you take if a consignee failed to produce an original bill of lading at the discharge port?

A: Where the party claiming to be the rightful receiver request delivery of his goods but can not produce an original bill of lading (perhaps because of a delay in the mail, or because of a theft of documents from his office) I would instruct the agent to inform the receiver so that no cargo can be discharge until either; 1) an original bill of lading can be presented; or 2) an acceptable letter of indemnity (LOI) is given by the receiver.

Q.31: What must a shipper make available before you load dangerous goods:

- a) in bulk liquid form?
- b) in package form?

A: A dangerous goods Declaration or a marine pollutants declaration as appropriate. A combined declaration is allowed. The declaration can be made on a dangerous goods/Marine Pollutants note.

Q.32: a) What are difference between dangerous goods and marine pollutant?

b) Where would you find a list of all recognised ‘marine pollutants’?

A: b) In the IMDG code. They are indicate by the words ‘Marine Pollutant’ and a symbol of a triangle containing a fish, with an overlaid cross.

Q.:33:a) There is no section in the ORB specifically for recording bunkering operation. where would you record these?

- b) Where must Master’s signature appear in the ORB?
- c) For how long must an ORB be kept on board?

A: a) Part-1, Section-H. concern additional operations procedures and general remarks.

- b) At the end of each page.
- c) 3 years from last entry made.

Q.34: a) who can demand to see your Official Log Book?

b) How would you correct an erroneous entry in the OLB?

A a) To the RSS; an MCA Superintend ; a proper officer; an MCA Surveyor; or a custom officer. In practice I would show it also to any foreign state or harbour official who demanded to see it, because local law may require this.

b) With a further entry. I would leave the incorrect entry as it is and make a new entry referring to the mistake, e.g. “ In previous entry , for smith read Jones”

BUOYS and ROR.

Q: Your vessels Heading south and you see a south cardinal buoy on your right a head what is your action?

- A:
1. Stop Engine.
 2. Take her all way off.
 3. Echo sounder on
 4. Check the position of buoy on chart.
 5. Check your position.
 6. Make a full appraisal of the situation.
 7. Decide the best course of action.

Q: How a new danger marked?

A: One or more cardinal or lateral buoy. If the danger is gravid one of the buoy will be duplicated. One of those will have rackon with mores “D” with the signal length 1 (one) NM (at least) on radar PPI. Light on the buoys must be quick or very quick.

Q: If you see a white light on night time what it could be?

- A:
1. Astern light of a vessel.
 2. Life raft light.
 3. Vessel less then 7 meter long and whose maximum speed should not exceed more then 7 kts.
 4. Vessel less then 50 meter long at anchor.
 5. Vessel under ores.

Q: Where is special mark buoy used?

- A:
1. Channel within the channel.
 2. Recreation zone.
 3. Ocean data accusation system.
 4. Firing area.
 5. Traffic separation scheme.
 6. Spoil ground.
 7. Cable and pipe line area.

Q: What is the other name of a safe water buoy ?

- A:
1. Mid channel buoy.

2. Fairway buoy.
3. Landfall buoy.

Q: Fog bank ahead-Action?

A: **General:**

1. Inform engine room and SBE.
2. Reduce speed to safe speed.
3. Check navigation light.
4. Post extra lookout.
5. Start fog signal.
6. Start radar plotting.
7. Man on the wheel.

Operational:

1. Close water tight door.
2. Order silence on Deck.
3. Open bridge wings door.

Navigational:

1. Check the position of last visual object.
2. Increase the fog signal frequency in near coastal water.
3. If shallow water put echo-sounder on.

Q: On the fog you just switch on the Radar, you found a target on the PPI just 3 miles right ahead, action?

- A:
1. Stop Engine
 2. Take her all way off.
 3. Start radar plotting.
 4. Complete radar plotting.
 5. Find out best course of action.

Do not alter course before completing radar plotting as because this is a scanty radar information.

Dry docking.

Q: What is Dry dock procedure?

A: *Before Docking*

- Make a repair list.

- Contact with dry dock authorities
 - agreed draught and trim. (upright with small trim)
 - supply ships plan, including shell expansion plan showing position of appendages, inlet, discharge, echo sounders, projecting logs, bilge keels, propellers, etc., Cargo plan if any cargo on board, Any available plans from previous dry dock which might be useful.
 - confirm whether the dock is graving or floating dock, whether side shores or bilge block will be used.
 - Confirm the facilities are supplied - toilets, fire main, telephone etc.
 - Rig fenders as necessary.
- Calculate stability condition (particularly for critical instant). Minimise free surface and secure moveable weights.

$$P = (COT \times MCTC) / LCF, \{P = \text{Reduction of TMD} \times TPC\}$$

$$\text{Virtual loss of GM} = (P \times KM) / W$$

$$COT = (W \times D) / MCTC.$$

- If possible empty fore and aft peak tanks (unsupported weights increase hogging stress)
- Lower derricks and cranes and ensure hatches closed.

After Docking

- Secure two means of access/escape (eg. Gangway port forward and starboard aft)
- Takes sounding of all spaces and record result.
- Establish shore connection for telephone, fire line, domestic water, electric power. Secure earth return line.
- Clarify responsibilities between ship and shore (eg. Watchman, fire patrols)
- Arrange sanitation/toilets/waste disposal. Close/plug scuppers, overboard discharge, etc.
- Safety store (chief mate office) any bottom plug removed.

Before Flooding Dock

- Take sounding of all spaces and compare with soundings on entry (if any difference, re-work stability condition for critical instant).
- Check all plugs back in place.
- Ensure all staging removed. Disconnect all utilities. Remove gangways.

Q: What is critical instant?

A: As the water is pumped out the vessel's trim will reduce until the ship lands fore and aft on the blocks. The instant before this happens is known as the CRITICAL INSTANT.

Q: What is critical period?

A: The interval of time between the vessel touching the blocks aft and landing fore and aft is known as the CRITICAL PERIOD since the vessel is losing stability throughout this period.

Q: What precaution you would take while Docking with Cargo?

A: 1. Leave some water in the dock so that the vessel is still displacing water, thereby reducing the upthrust from the blocks.
2. Increase the number of lines of blocks supporting the vessel so as to spread the load. (N.B. Blocks should always be laid in line with longitudinal bottom girders).

Q: What is Declivity?

A: The declivity of the drydock is the slop of the bottom of the dock towards the entrance (this assist in the drainage of the dock).