SOLAS - International Convention for the Safety of Life at Sea

Chapter III
This module is distributed with the sole purpose to provide basic standard ship knowledge to all ASI inspectors.

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Part A
General

- Application
- Exemptions
- Definitions
- Evaluation, testing and approval of life-saving appliances and arrangements
- Production tests
Part B - Requirements for ships and life-saving appliances

- Section I - Passenger Ships and Cargo Ships.
- Section II - Passenger Ships (Additional Requirements)
- Section III - Cargo Ships (Additional Requirements)
- Section IV - Life-Saving Appliances and Arrangements Requirements
- Section V - Miscellaneous
Radio Life-saving appliances

Two way VHF radiotelephone

- Three (3) two-way VHF radiotelephone apparatus shall be provided on every passenger ship and on every cargo ship of 500 gross tonnage and upwards

- Two (2) two-way VHF radiotelephone apparatus shall be provided on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage
Radio Life-saving appliances

Radar Transponder

- One (1) radar transponder shall be carried on each side of every passenger ship and of every cargo ship of 500 gross tonnage and upwards
- (1) one radar transponder shall be carried on every cargo ship of 300 gross tonnage and upwards but less than 500 gross tonnage
Radio Life-saving appliances

- Shall be stowed in such locations that they can be rapidly placed in any survival craft other than the liferaft or liferafts
Radar Display showing the SART 12 dot blip code (bearing approximately 90°)

As the search craft approaches to within about 1 n mile of the SART the 12 dots will change to wide arcs.

The wide arcs change into complete circles as the SART is closed.

Using compatible radar with antenna phase at least 1°C, detection ranges are up to 40 n miles.

With antenna height of 15 metres, detection ranges are up to at least 5 n miles.

SURVIVAL CRAFT
IMO recommends SART mounted 1 metre above sea level.

IMO SYMBOL FOR SART
Distress Flares

- Not less than 12 rocket parachute flares, complying with the requirements of the Code, shall be carried and be stowed on or near the navigation bridge.
Distress Flares
On-board communications

- An emergency means comprised of either fixed or portable equipment or both shall be provided for two-way communications between emergency control stations, muster and embarkation stations and strategic positions on board.
General Emergency Alarm System

- shall be used for summoning passengers and crew to muster stations and to initiate the actions included in the muster list.
- The system shall be supplemented by either a public address system
Public address system on passenger ships

- shall be clearly audible above the ambient noise in all spaces and shall be provided with an override function controlled from one location on the navigation bridge.
- Estará conectado a la fuente de energía eléctrica de emergencia
Personal life-saving appliances

Lifebuoys

- So distributed as to be readily available on both sides of the ship.
- So stowed as to be capable of being rapidly cast loose, and not permanently secured in any way.
# Lifebuoys

## Passenger Ships

<table>
<thead>
<tr>
<th>Length of ship in metres</th>
<th>Minimum number of lifebuoys</th>
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<tbody>
<tr>
<td>Under 60</td>
<td>8</td>
</tr>
<tr>
<td>60 and under 120</td>
<td>12</td>
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<tr>
<td>120 and under 180</td>
<td>18</td>
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<tr>
<td>180 and under 240</td>
<td>24</td>
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<tr>
<td>240 and over</td>
<td>30</td>
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</tbody>
</table>
## Lifebuoys
### Cargo Ships

<table>
<thead>
<tr>
<th>Length of ship in metres</th>
<th>Minimum number of lifebuoys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 100</td>
<td>8</td>
</tr>
<tr>
<td>100 and under 150</td>
<td>10</td>
</tr>
<tr>
<td>150 and under 200</td>
<td>12</td>
</tr>
<tr>
<td>200 and over</td>
<td>14</td>
</tr>
</tbody>
</table>
Lifejackets

shall be provided for every person on board the ship and, in addition:

- a number of lifejackets suitable for children equal to at least 10% of the number of passengers on board shall be provided or such greater number as may be required to provide a lifejacket for each child; and

- a sufficient number of lifejackets shall be carried for persons on watch.
Immersion Suits

- Shall be provided for every person assigned to crew the rescue boat or assigned to the marine evacuation system party.
Muster List

- Clear instructions to be followed in the event of an emergency shall be provided for every person on board.

- Shall be exhibited in conspicuous places throughout the ship including the navigating bridge, engine-room and crew accommodation spaces.
Operating Instructions

- Shall be provided on or in the vicinity of survival craft and their launching controls
- Illustrate the purpose of controls and the procedures for operating the appliance
- Relevant instructions or warnings must be easily seen under emergency lighting conditions; and use symbols in accordance with the recommendations of the OMI.
**Line Throwing appliances**

- For rescue operations, for use as a guide line for cables and ropes. Shoot 300 mtrs. out of 4 mm in diameter.
- The line has a resistance to breaking above 2,300 N
- Dimensions: 340 mm height x 230 mm diámetro
- Weight: 4 Kg.
Emergency training and drills

Before voyage begins:

1. Every crew member with assigned emergency duties shall be familiar with safety installations and practice musters.

2. Safety briefing shall be given immediately before sailing, or immediately after sailing.
Emergency training and drills

Every month:

1. Abandon SHip Drills
2. Fire Drills
Emergency training and drills

Every three months:

1. Each lifeboat shall be launched, and manoeuvred in the water by its assigned operating crew, during an abandon ship drill.

2. Rescue boat Drill
Emergency training and drills

On-board training in the use of the ship’s life-saving appliances, including survival craft equipment, and in the use of the ship’s fire-extinguishing appliances shall be given as soon as possible but not later than two weeks after a crew member joins the ship.
Records

- The date when musters are held, details of abandon ship drills and fire drills, drills of other life-saving appliances and on-board training shall be recorded in such log-book.
Operational readiness, maintenance and inspections

1. Operational readiness
2. Maintenance Inspeccion
   - Weekly
   - Monthly
   - Annual
Weekly Inspection

- All survival craft, rescue boats and launching appliances shall be visually inspected.
- All engines in lifeboats and rescue boats shall be run for a total period of not less than 3 minutes.
- The general emergency alarm shall be tested.
Monthly Inspections

- Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using the checklist.
- A report of the inspection shall be entered in the log-book.
Annual Inspections

- Every inflatable liferaft and inflatable lifejacket shall be serviced. (at intervals not exceeding 12 months)
- Hydrostatic release units
Annual Inspections

- Marine evacuation system (Service at intervals not exceeding five years)
Marking of stowage locations

- Containers, brackets, racks, and other similar stowage locations for life-saving equipment, shall be marked with symbols in accordance with the recommendations of the OMI.
Survival craft
Passenger Ships

- partially or totally enclosed lifeboats on each side of such aggregate capacity as will accommodate not less than 50% of the total number of persons on board.

- inflatable or rigid liferafts of such aggregate capacity as will accommodate at least 25% of the total number of persons on board.
Rescue Boats
Passenger Ships

- 500 GT and over: at least one rescue boat on each side.
- Less than 500 GT: shall carry at least one rescue boat.
- A lifeboat may be accepted as a rescue boat provided it also complies with the requirements for a rescue boat.
Marshalling of liferafts

- The number of lifeboats and rescue boats that are carried on passenger ships shall be sufficient to ensure that in providing for abandonment by the total number of persons on board not more than six liferafts need be marshalled by each lifeboat or rescue boat.
Decision support system for masters of passenger ships

- In all passenger ships, a decision support system for emergency management shall be provided on the navigation bridge.

- The system shall, as a minimum, consist of a printed emergency plan or plans including, but not limited to, the following 7 main groups of emergencies:
Decision support system for masters of passenger ships

1. Fire;
Decision support system for masters of passenger ships

2. Damage to ship;
Decision support system for masters of passenger ships

- 3. Pollution;
4. Unlawful acts threatening the safety of the ship and the security of its passengers and crew;
Decision support system for masters of passenger ships

5. Personnel accidents;
Decision support system for masters of passenger ships

6. Cargo-related accidents; and
Decision support system for masters of passenger ships

7. Emergency assistance to other ships.
Survival craft Cargo Ship

- One or more totally enclosed lifeboats on each side of the ship as will accommodate the total number of persons on board.
- one or more inflatable or rigid liferafts of such aggregate capacity as will accommodate the total number of persons on board.
Rescue boats
Cargo Ship

- Cargo ships shall carry at least one rescue boat.
- A lifeboat may be accepted as a rescue boat, provided that it also complies with the requirements for a rescue boat.
Miscellaneous
Training manual and on-board training aids

- A training manual shall be provided in each crew mess room and recreation room or in each crew cabin.
THANK YOU!