# On-board Maintenance & Drills



The current Technical Information is an updated technical publication concerning the requirements for maintenance and inspection of firefighting, lifesaving and radio equipment as well as drills as per statutory instruments.

The publication includes requirements for:

- On-board Maintenance & Inspection of Fire Protection Systems and Life-Saving Appliances
- Servicing, Inspection & Testing of Accommodation Ladders, gangways, davits and winches
- Servicing, Inspection & Testing of Launching Appliances (davit and winch)
- Servicing, Inspection & Testing of Lifeboat on-load release gear
- Servicing, Inspection & Testing of Davit-launched liferaft automatic release hooks
- Servicing, Inspection & Testing of Radio and Navigation Equipment
- On-board Training and Drills

In accordance with ISM Code Section 10.1 the safety management system of the company must provide a maintenance plan which ensures maintenance and inspection of the ship and equipment according to the relevant rules and regulations, codes, guidelines and standards.

The ship ISM Managers should ensure that the existing maintenance program on board ships follows the revised guidelines and necessary amendments or revisions should be carried out.

مدرک فنی حاضر، شامل کلیات الزامات بازرسی و نگهداری تجهیزات آتش نشانی، نجات، رادیویی و همچنین تمرینات آموزشی مطابق با اسناد قانونی، است.

- تعمیر و نگهداری و بازرسی سیستم‌های حفاظت در برابر حریق و تجهیزات نجات روی شناورها
- سرویس های دوره ای، بازرسی و تست تجهیزات سوار و پیاده شدن افراد، پلکان‌های تردد، بالابر ها و جرثقیل‌ها
- سرویس های دوره ای، بازرسی و تست تجهیزات به آب اندازی (بالابر یا جرثقیل و وینچ)
- سرویس های دوره ای، بازرسی و تست تجهیزات رهاسازی تحت بار قایق نجات
- سرویس های دوره ای، بازرسی و تست سیستم های به آب اندازی قایق‌های نجات توسط بالابر یا جرثقیل
- سرویس های دوره ای، بازرسی و آزمایش تجهیزات رادیویی و ناوبری
- تمرینات آموزشی روی کشتی

بر اساس بخش 10.1 کد ISM، سیستم مدیریت ایمنی شرکت باید برنامه ای برای نگهداری سیستم ها و تجهیزات فوق فراهم کند. برنامه مذکور باید به گونه ای باشد که از نگهداری و بازرسی تجهیزات بر اساس قوانین مرتبط، کدها، دستورالعمل ها و استاندارد ها، اطمینان حاصل شود.

از سوی دیگر، مدیران ISM کشتی ها باید اطمینان حاصل کنند که برنامه نگهداری موجود از دستورالعمل‌های بازنگری شده پیروی می‌کند و اصلاحات یا بازنگری‌های لازم نیز انجام می شود.

# Part A – On board Maintenance

## REQUIREMENTS FOR ALL SHIPS

| WEEKLY |
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| **Life saving appliances** |
| **Emergency escape breathing devices (EEBDs)**<br>Examine cylinder gauges to confirm they are in the correct pressure range [MSC.1/Circ.1432] |
| **Falls used in launching appliances**[1]<br>Maintenance [SOLAS III/20.4; MSC.1/Circ.1206/Rev.1] |
| **Lifeboats (except free-fall lifeboats)**<br>Moving from stowed position [SOLAS III/20.6.3] |
| **Lifeboat and rescue boat engines**<br>Maintenance [SOLAS III/20.6.2; MSC.1/Circ1206/Rev.1] |
| **Testing of public address systems and general alarm systems**<br>[SOLAS III/20.6.4; MSC.1/Circ.1432] |
| **Visual inspection of survival craft, rescue boats and launching appliances**<br>Maintenance [SOLAS III/20.6.1] |
| **Fire protection and fire-fighting equipment** |
| **Self-contained breathing apparatuses (SCBAs)**<br>Examine cylinder gauges to confirm they are in the correct pressure range [MSC.1/Circ1432] |
| **Fixed fire-detection and alarm systems**<br>Verify that all fire detection and fire alarm control panel indicators are functional by operating the lamp/indicator test switch [MSC.1/Circ1432] |
| **Fire Doors**<br>Verify that all fire door control panel indicators, if provided are functional by operating the lamp/indicator switch [MSC.1/Circ1432] |
| **Fixed firefighting systems** |
| **Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)**<br>- Verify that all fixed fire-extinguishing system control panel indicators are functional by operating the lamp/indicator test switch [MSC.1/Circ.1432]<br>- Verify that all control/section valves are in the correct position [MSC.1/Circ.1432] |
| **Water mist, water spray and sprinkler systems**<br>- Verify that all control panel indicators and alarms are functional [MSC.1/Circ.1432]<br>- Visually inspect pump unit and its fittings [MSC.1/Circ.1432]<br>- Check the pump unit's valve positions if valves are not locked, as applicable [MSC.1/Circ.1432] |



[1] Inspections according to maker's maintenance guidelines. Special concern for hidden areas and areas of end terminations.

## MONTHLY

### Life saving appliances

**Means of embarkation on and disembarkation from ships (gangways, accommodation ladders, incl. winch and fittings as well as use for pilot transfer)[2]**
Maintenance and inspection [SOLAS II-1/3-9.3; SOLAS III/20.4; SOLAS III/20.7.2; MSC.1/Circ.1331]

**Falls used in launching appliances[3]**
Maintenance [SOLAS III/20.4; MSC.1/Circ.1206/Rev.1]

**Immersion suits and anti-exposure suits**
Inspection [SOLAS III/20.7.2; SOLAS III/36.1; MSC/Circ.1047]

**Launching appliances**
Maintained in accordance with instructions for on-board maintenance [SOLAS III/20.11.5]

**Lifeboat and rescue boat release gear**
- Maintained in accordance with instructions for on-board maintenance [SOLAS III/20.11.5]

**Davit-launched liferaft automatic release hooks**
Maintained in accordance with instructions for on-board maintenance [SOLAS III/20.11.2]

**Lifeboats and rescue boats, including fast rescue boats**
Maintained in accordance with instructions for on-board maintenance [SOLAS III/0.11.5]

**Fixed fire-detection and alarm systems**
Test a sample of detectors and manual call points so that all devices have been tested within five years [MSC.1/Circ1432]

**Wheeled (mobile) fire extinguishers**
Verify that all are in place, properly arranged, and are in proper condition [MSC.1/Circ.1432]

**Firefighter's outfits**
Verify that lockers providing storage for fire-fighting equipment contain their full inventory and that equipment is in serviceable condition [MSC.1/Circ.1432]

**Fire mains, fire pumps, hydrants, hoses and nozzles**
- Verify that all fire hydrants, hoses and nozzles are in place, properly arranged, and are in serviceable condition [MSC.1/Circ.1432]
- Operate all fire pumps to confirm that they continue to supply adequate pressure [MSC.1/Circ.1432]
- Verify that emergency fire pump fuel supply is adequate and heating system is in satisfactory condition, if applicable [MSC.1/Circ.1432]

**Portable foam applicator units**
Verify that all portable foam applicators are in place, properly arranged, and are in proper condition [MSC.1/Circ.1432]

### Fixed firefighting systems

**Aerosol fire-extinguishing systems**
- Verify that all electrical connections and/or manual operating stations are properly arranged and are in proper condition [MSC.1/Circ.1432]
- Verify that the actuation system/control panel circuits are within manufacturer's specifications [MSC.1/Circ.1432]

**Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)**
Verify that containers/ cylinders fitted with pressure gauges are in the proper range and that the installation is free from leakage [MSC.1/Circ.1432]

**CO2 fire-extinguishing systems**
- General visual inspection of the overall system condition for obvious signs of damage [MSC.1/Circ.1318]
- Verify that all stop valves are in the closed position [MSC.1/Circ.1318]
- Verify that all releasing controls are in the proper position and readily accessible for immediate use [MSC.1/Circ.1318]
- Verify that all discharge piping and pneumatic tubing is intact and has not been damaged [MSC.1/Circ.1318]
- Verify that all high pressure cylinders are in place and properly secured [MSC.1/Circ.1318]

[2] In accordance with manufacturer's instructions. Maintenance of wires acc. to SOLAS III/20.4

[3] Inspections according to maker's maintenance guidelines. Special concern for hidden areas and areas of end terminations.

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| **CO2 fire-extinguishing systems**[4]<br>- Verify that the alarm devices are in place and do not appear damaged [MSC.1/Circ.1318]<br>- Verify that the pressure gauge is reading in the normal range [MSC.1/Circ.1318]<br>- Verify that the liquid level indicator is reading at the proper level [MSC.1/Circ.1318]<br>- Verify that the manually operated storage tank main service valve is secured in the open position [MSC.1/Circ.1318]<br>- Verify that the vapor supply line valve is secured in the open position [MSC.1/Circ.1318] |
| **Dry chemical powder systems**<br>Verify that all control and section valves are in the proper open or closed position, and that all pressure gauges are in the proper range [MSC.1/Circ.1432] |
| **Foam fire-extinguishing systems**<br>Verify that all control and section valves are in the proper open or closed position, and that all pressure gauges are in the proper range [MSC.1/Circ.1432] |
| **Water mist, water spray and sprinkler systems**<br>- Verify that all control, pump unit and section valves are in the proper open or closed position [MSC.1/Circ.1432]<br>- Verify that sprinkler pressure tanks or other means have correct levels of water [MSC.1/Circ.1432]<br>- Test automatic starting arrangements on all system pumps so designed [MSC.1/Circ.1432]<br>- Verify that all standby pressure and air/gas pressure gauges are within the proper pressure ranges [MSC.1/Circ.1432]<br>- Test a selected sample of system section valves for flow and proper initiation of alarms.[5] [MSC.1/Circ.1432] |

| **ANNUALLY** |
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| **Lifesaving appliances** |
| **Means of embarkation on and disembarkation from ships (gangways, accommodation ladders, incl. winch and fittings as well as use for pilot transfer)**<br>Thorough examination (within survey window) [SOLAS II-1/3-9.3; MSC.1/Circ.1331] |
| **Emergency escape breathing devices (EEBDs)**<br>Check according to maker's instructions [MSC.1/Circ.1432] |
| **Falls used in launching appliances**[6]<br>Maintenance [SOLAS III/20.4; MSC.1/Circ1206/Rev1] |
| **Hydrostatic release units (non-disposable)**[7]<br>Maintenance [SOLAS III/20.9.1] |
| **Maintenance of inflatable liferafts, lifejackets**[8]<br>SOLAS III/20.8.1.1; Res. A.761(18); (inflatable liferafts) |
| **Launching appliances**<br>- Launching appliance annual thorough examination (within survey window) [SOLAS III/20.11.1.2; MSC.1/Circ.1206/Rev.1]<br>- Dynamic test of the winch brake (within survey window) [SOLAS III/20.11.1.3; MSC.1/Circ.1206/Rev.1]<br>- Thorough examination and operational test with load of empty boat, i.e. without persons on board [SOLAS III/20.11.2.2]<br>- On-load release gear/ automatic release hooks thorough examination and operational test incl. free-fall lifeboat release system [SOLAS III/20.11.2.2 + 20.11.3.2; MSC.1/Circ.1206/Rev.1] |
| **Davit-launched life-raft automatic release hooks**<br>Thorough examination and operational test [SOLAS III/20.11.3.1] |
| **Examination of lifeboats**<br>(within survey window) [MSC.1/Circ.1206/Rev.1] |



[4] For low pressure systems only.

[5] The valves selected for testing shall be chosen to ensure that all valves are tested within a one-year period.

[6] Inspections according to maker's maintenance guidelines. Special concern for hidden areas and areas of end terminations.

[7] May be extended to 17 months. Some flag administrations require that they be consulted for acceptance

[8] May be extended to 17 months. Some flag administrations require to be consulted for acceptance *Inflatable liferafts:* Administration can accept specific liferafts for extended service intervals acc . to SOLAS III/20.8.3 and MSC.1/Circ.1328

| Fire protection and fire-fighting equipment |
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| **Air-recharging system for SCBAs**[9]<br>Check breathing apparatus air recharging systems, if fitted, for air quality [MSC.1/Circ1432] |
| **Self-contained breathing apparatuses (SCBAs)**<br>Check that all breathing apparatus face masks and air demand valves are in serviceable condition [MSC.1/Circ1432] |
| **Fixed fire-detection and alarm systems**<br>- Test all fire detection systems and fire detection systems used to automatically release fire-extinguishing systems for proper operation, as appropriate [MSC.1/Circ1432]<br>- Visually inspect all accessible detectors for evidence of tampering, obstruction etc., so that all detectors are inspected within one year [MSC.1/Circ1432]<br>- Test emergency power supply switchover [MSC.1/Circ1432] |
| **Fire dampers**<br>Test all fire dampers for remote operation [MSC.1/Circ1432] |
| **Fire doors**<br>Test all remotely controlled fire doors for proper release [MSC.1/Circ1432] |
| **Portable fire extinguishers**<br>Inspection in accordance with the manufacturer's instructions and based on inspection guide in Res.A.951 (23), table 9.1.3 [Res.A.951 (23)] |
| **Wheeled (mobile) fire extinguishers**<br>- Inspection in accordance with the manufacturer's instructions [MSC.1/Circ.1432]<br>- Wheeled (mobile) fire extinguishers shall be visually inspected to check that all accessible components are in proper condition [MSC.1/Circ.1432]<br>- The hydrostatic test date of each cylinder is to be checked [MSC.1/Circ.1432]<br>- Dry powder wheeled (mobile) fire extinguishers are to be inverted to ensure that the powder is agitated [MSC.1/Circ.1432] |
| **Fire mains, fire pumps, hydrants, hoses and nozzles**<br>- Visually inspect all accessible components for proper condition [MSC.1/Circ.1432]<br>- Flow test all fire pumps for proper pressure and capacity. Test emergency fire pump with isolation valves closed [MSC.1/Circ.1432]<br>- Test all hydrant valves for proper operation [MSC.1/Circ.1432]<br>- Pressure test a sample of fire hoses at the maximum fire main pressure, so that all fire hoses are tested within five years [MSC.1/Circ.1432]<br>- Verify that all fire pump relief valves, if provided, are properly set [MSC.1/Circ.1432]<br>- Examine all filters/strainers to verify that they are free of debris and contamination [MSC.1/Circ.1432]<br>- Verify that the nozzle size/ type is correct, maintained and working [MSC.1/Circ.1432] |
| **Galley exhaust ducts**<br>Verify that galley exhaust ducts and filters are free of grease build-up [MSC.1/Circ.1432] |
| **Portable foam applicator units**<br>- Verify that all portable foam applicators are set to the correct proportioning ratio for the foam concentrate supplied and that the equipment is in proper order [MSC.1/Circ.1432]<br>- Verify that all portable containers or portable tanks containing foam concentrate remain factory sealed, and that the manufacturer's recommended service life interval has not been exceeded [MSC.1/Circ.1432] |
| **Portable foam applicator units**[10]<br>- Portable containers or portable tanks containing foam concentrate, excluding protein based concentrates, less than 10 years old, that remain factory sealed can normally be accepted without the periodical foam control tests required in MSC.1/Circ.1312 being carried out [MSC.1/Circ.1432]<br>- Protein-based foam concentrate portable containers and portable tanks shall be thoroughly checked and, if more than five years old, the foam concentrate shall be subjected to the periodical foam control tests required in MSC.1/Circ.1312, or renewed [MSC.1/Circ.1432]<br>- The foam concentrates of any non-sealed portable containers and portable tanks, and portable containers and portable tanks for which production data is not documented, shall be subjected to the periodical foam control tests required in MSC.1/Circ.1312 [MSC.1/Circ.1432] |
| **Ventilation systems**<br>Test all ventilation controls interconnected with fire protection systems for proper operation [MSC.1/Circ.1432] |



[9] By crew provided a suitable measurement device is available on board. The test device is to be agreed with the maker of the air recharging system.

[10] The foam control tests are to be conducted by SER or maker.

## Fixed firefighting systems

### Aerosol fire-extinguishing systems

Verify that condensed or dispersed aerosol generators have not exceeded their mandatory replacement date. Pneumatic or electric actuators shall be demonstrated working, as far as practicable [MSC.1/Circ.1432]

### Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon) [MSC.1/Circ.1432]

- Visually inspect all accessible components for proper condition
- Externally examine all high pressure cylinders for evidence of damage or corrosion.
- Check the hydrostatic test date of all storage containers.
- Functionally test all fixed system audible and visual alarms.
- Verify that all control/section valves are in the correct position.
- Check the connections of all pilot release piping and tubing for tightness.
- Examine all flexible hoses in accordance with manufacturer's recommendations.
- Test all fuel shut-off controls connected to fire-protection systems for proper operation.
- The boundaries of the protected space shall be visually inspected to confirm that no modifications have been made to the enclosures that have created un-closeable openings that would render the system ineffective.
- If cylinders are installed inside the protected space, verify the integrity of the double release lines inside the protected space, and check low pressure or circuit integrity monitors on release cabinet, as applicable.

### CO2 fire-extinguishing systems

- The boundaries of the protected space shall be visually inspected to confirm that no modifications have been made to the enclosures that have created un-closeable openings that would render the system ineffective [MSC.1/Circ.1318]
- All storage containers shall be visually inspected for any signs of damage, rust or loose mounting hardware. Cylinders that are leaking, corroded, dented or bulging shall be hydrostatically retested or replaced [MSC.1/Circ.1318]
- System piping shall be visually inspected to check for damage, loose supports and corrosion. Nozzles shall be inspected to ensure they have not been obstructed by the storage of spare parts or a new installation of structures or machinery [MSC.1/Circ.1318]
- The manifold shall be inspected to verify that all flexible discharge hoses and fittings are properly tightened [MSC.1/Circ.1318]
- All entrance doors to the protected space shall close properly and shall have warning signs, which indicate that the space is protected by a fixed carbon dioxide system and that personnel shall evacuate immediately if the alarms sound. All remote releasing controls shall be checked for clear operating instructions and indication as to the space served [MSC.1/Circ.1318]
- The hydrostatic test date of all storage containers shall be checked. High-pressure cylinders should be subjected to periodical tests at intervals not exceeding 10 years. At the 10-year inspection, at least 10% of the total number provided should be subjected to an internal inspection and hydrostatic test. If one or more cylinders fail, a total of 50% of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested. Before the 20-year anniversary and every 10-year anniversary thereafter, all cylinders should be subjected to a hydrostatic test. Flexible hoses should be replaced at the intervals recommended by the manufacturer and not exceeding every 10 years. When cylinders are removed for testing, the cylinders should be replaced such that the quantity of fire-extinguishing medium continues to satisfy the requirements of 2.2.1 of chapter 5 of the FSS Code, subject to SOLAS regulation II-2/14.2; and [MSC.1/Circ.1318]

### Deep fat cooking fire-extinguishing systems

In accordance with the manufacturer's instructions [MSC.1/Circ.1432]

### Dry chemical powder systems

- Visually inspect all accessible components for proper condition [MSC.1/Circ.1432]
- Verify that the pressure regulators are in proper order and within calibration [MSC.1/Circ.1432]
- Agitate the dry chemical powder charge with nitrogen in accordance with system manufacturer's instructions.[11] [MSC.1/Circ.1432]



[11] Due to the powder's affinity for moisture, any nitrogen gas introduced for agitation must be moisture-free.

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| **Foam fire-extinguishing systems**<br>- Visually inspect all accessible components for proper condition [MSC.1/Circ.1432]<br>- Functionally test all fixed system audible alarms [MSC.1/Circ.1432]<br>- Flow test all water supply and foam pumps for proper pressure and capacity, and confirm flow at the required pressure in each section (ensure all piping is thoroughly flushed with fresh water after service) [MSC.1/Circ.1432]<br>- Test all system cross connections to other sources of water supply for proper operation [MSC.1/Circ.1432]<br>- Verify that all pump relief valves, if provided, are properly set [MSC.1/Circ.1432]<br>- Examine all filters/strainers to verify that they are free of debris and contamination [MSC.1/Circ.1432]<br>- Verify that all control/section valves are in the correct position [MSC.1/Circ.1432]<br>- Blow dry compressed air or nitrogen through the discharge piping or otherwise confirm that the pipework and nozzles of high expansion foam systems are clear of any obstructions, debris and contamination.[12] [MSC.1/Circ.1432]<br>- Test all fuel shut-off controls connected to fire-protection systems for proper operation [MSC.1/Circ.1432]<br>- Take samples from all foam concentrates carried on board (including the foam in sealed transport containers more than 10 years old) and subject them to the periodical control tests in MSC.1/ Circ.1312, for low expansion foam, or MSC/Circ.670 for high expansion foam.13 [MSC.1/Circ.1432, MSC.1/Circ.1312] | |
| **Water mist, water spray and sprinkler systems**<br>- Water mist, water spray and sprinkler systems [MSC.1/Circ.1432]<br>- Visually inspect all accessible components for proper condition [MSC.1/Circ.1432]<br>- Externally examine all high pressure cylinders for evidence of damage or corrosion [MSC.1/Circ.1432]<br>- Check the hydrostatic test date of all high pressure cylinders [MSC.1/Circ.1432]<br>- Functionally test all fixed system audible and visual alarms [MSC.1/Circ.1432]<br>- Flow test all pumps for proper pressure and capacity [MSC.1/Circ.1432]<br>- Test all antifreeze systems for adequate freeze protection [MSC.1/Circ.1432]<br>- Test all system cross connections to other sources of water supply for proper operation [MSC.1/Circ.1432]<br>- Verify that all pump relief valves, if provided, are properly set [MSC.1/Circ.1432]<br>- Examine all filters/strainers to verify that they are free of debris and contamination [MSC.1/Circ.1432]<br>- Verify that all control/section valves are in the correct position [MSC.1/Circ.1432]<br>- Blow dry compressed air or nitrogen through the discharge piping of dry pipe systems, or otherwise confirm that the pipework and nozzles are clear of any obstructions.14 [MSC.1/Circ.1432]<br>- Take samples from all foam concentrates carried on board (including the foam in sealed transport containers more than 10 years old) and subject them to the periodical control tests in MSC.1/ Circ.1312, for low expansion foam, or MSC/Circ.670 for high expansion foam.[13] [MSC.1/Circ.1432, MSC.1/Circ.1312]<br>- Test all fuel shut-off controls connected to fire-protection systems for proper operation [MSC.1/Circ.1432] | |



[12] This may require the removal of nozzles, if applicable.

[13] Except for protein-based alcohol-resistant foam concentrates, the first test should be performed not more than 3 years after being supplied to the ship.

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| **Water mist, water spray and sprinkler systems**<br>- Water mist, water spray and sprinkler systems [MSC.1/Circ.1432]<br>- Visually inspect all accessible components for proper condition [MSC.1/Circ.1432]<br>- Externally examine all high pressure cylinders for evidence of damage or corrosion [MSC.1/Circ.1432]<br>- Check the hydrostatic test date of all high pressure cylinders [MSC.1/Circ.1432]<br>- Functionally test all fixed system audible and visual alarms [MSC.1/Circ.1432]<br>- Flow test all pumps for proper pressure and capacity [MSC.1/Circ.1432]<br>- Test all antifreeze systems for adequate freeze protection [MSC.1/Circ.1432]<br>- Test all system cross connections to other sources of water supply for proper operation [MSC.1/Circ.1432]<br>- Verify that all pump relief valves, if provided, are properly set [MSC.1/Circ.1432]<br>- Examine all filters/strainers to verify that they are free of debris and contamination [MSC.1/Circ.1432]<br>- Verify that all control/section valves are in the correct position [MSC.1/Circ.1432]<br>- Blow dry compressed air or nitrogen through the discharge piping of dry pipe systems, or otherwise confirm that the pipework and nozzles are clear of any obstructions.[14] [MSC.1/Circ.1432]<br>- Test emergency power supply switchover, where applicable [MSC.1/Circ.1432]<br>- Water mist, water spray and sprinkler systems MSC.1/Circ.1432, par. 7.5.14 (as amended by MSC.1/Circ.1516)<br>- Check for any changes that may affect the system, such as obstructions by ventilation ducts, pipes, etc [MSC.1/Circ.1432]<br>- Test a minimum of one section in each open head water mist system by flowing water through the nozzles.[15] [MSC.1/Circ.1432, par. 7.5.16 SI II-2/14.2.2]<br>- For automatic sprinkler systems of less than 5 years, test a minimum of two randomly selected sprinkler heads/nozzles of each type. If five years or more, test a minimum of 20 heads/nozzles (2 × 10 sections) for each type.[16] [MSC.1/ Circ.1432 (as amended by MSC.1/ Circ.1516)]<br>- During basic testing, and extended testing when applicable, of automatic sprinkler heads/nozzles as outlined in subparagraph .17, water quality testing should be conducted in each corresponding piping section.[17] [MSC.1/Circ.1432 (as amended by MSC.1/ Circ.1516)]<br>- Test additives in water mist system water sample[18] |
| **Radio and navigational equipment** |
| **Testing of the automatic identification system (AIS)[19]**<br>[SOLAS V/18.9] |
| **Checking of radio battery[20]**<br>[SOLAS IV/13.6.2] |
| **Satellite emergency position-indicating radio beacons (EPIRBs)**<br>Testing according to MSC.1/ Circ.1040/Rev.1 (within survey window) [SOLAS IV/15.9.1] |
| **Voyage data recorder (VDR)[21]**<br>- [SOLAS V/18.8]<br>- Capsule float-free arrangements are satisfactory as originally accepted at commissioning and any battery, release mechanism or other datable items are within their expiry date. For float-free capsules approved in accordance with MSC.333(90), the examination should be carried out in accordance with MSC.1/Circ.1040/Rev.1 [MSC.1/Circ.1222/Rev.1] |



[14] The sections tested shall be chosen so that all sections are tested within a five-year period. Other test and inspections as per maker's recommendations and type approval certificate. Test or record of the test shall be presented to the attending surveyor

[15] The sections tested shall be chosen so that all sections are tested within a five-year period. Other test and inspections as per maker's recommendations and type approval certificate. Test or record of the test shall be presented to the attending surveyor

[16] Test in accordance with the basic and extended testing (when applicable) in MSC.1/Circ.1516.

[17] Should a tested sprinkler fail, assessing the corresponding water quality at that time would assist in determining the cause of failure

[18] After 3 years and then annually

[19] Test report shall be retained on board the ship.

[20] Not by radio surveyor.

[21] Certificate of compliance and maintenance report shall be retained on board the ship.

| 2-YEARLY |
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| **Fixed firefighting systems** |
| **Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)**<br>- All high pressure extinguishing agent cylinders and pilot cylinders shall be weighed or have their contents verified by other reliable means to confirm that the available charge in each is above 95% of the nominal charge. Cylinders containing less than 95% of the nominal charge shall be refilled [MSC.1/Circ.1432]<br>- Blow dry compressed air or nitrogen through the discharge piping or otherwise confirm that the pipework and nozzles are clear of any obstructions. This may require the removal of nozzles, if applicable [MSC.1/Circ.1432] |
| **Dry chemical powder systems**[22]<br>- Blow dry nitrogen through the discharge piping to confirm that the pipework and nozzles are clear of any obstructions [MSC.1/Circ.1432]<br>- Operationally test local and remote controls and section valves [MSC.1/Circ.1432]<br>- Verify the contents of propellant gas cylinders (including remote operating stations) [MSC.1/Circ.1432]<br>- Test a sample of dry chemical powder for moisture content [MSC.1/Circ.1432]<br>- Subject the powder containment vessel, safety valve and discharge hoses to a full working pressure test [MSC.1/Circ.1432] |
| **2,5-YEARS** |
| **Accommodation ladders, gangways, davits and winches**<br>Servicing of liferafts (30 moths) [SOLAS III/20.8.3 & MSC/Circ.1328 |
| **3-YEARLY** |
| **Life saving appliances** |
| **Immersion suits and anti-exposure suits**[23]<br>Air pressure test (seams and closures) [MSC/Circ.1114] |
| **4-YEARLY** |
| **Fire protection and fire-fighting equipment** |
| **Fire dampers**<br>Test all fire dampers for local operation [MSC.1/Circ1432] |
| **Fire mains, fire pumps, hydrants, hoses and nozzles**<br>Verify that international shore connection(s) is/are in serviceable condition [MSC.1/Circ.1432] |
| **Fixed firefighting systems** |
| **Foam fire-extinguishing systems**<br>Verify that the proper quantity of foam concentrate is provided in the foam system storage tank [MSC.1/Circ.1432] |
| **Water mist, water spray and sprinkler systems**<br>Assess system water quality in the header tank and pump unit against the manufacturer's water quality guidelines [MSC.1/Circ.1432 (as amended by MSC.1/ Circ.1516)] |
| **Radio and navigational equipment** |
| **Testing of the automatic identification system (AIS)**<br>[SOLAS V/18.9] |
| **Checking of radio battery**<br>[SOLAS IV/13.6.2] |
| **Satellite emergency position-indicating radio beacons (EPIRBs)**<br>Testing according to MSC.1/ Circ.1040/Rev.1 (within survey window) [SOLAS IV/15.9.1] |
| **Voyage data recorder (VDR)**<br>- [SOLAS V/18.8]<br>- Capsule float-free arrangements are satisfactory as originally accepted at commissioning and any battery, release mechanism or other datable items are within their expiry date. For float-free |

[22] If permitted by the flag state administration, the interval can be extended to/harmonized with every intermediate/ periodical and renewal survey according to DBS SI II-2/14.2.2 item 3.11.1.1 e4).

[23] By crew provided suitable equipment is available on board.

capsules approved in accordance with MSC.333(90), the examination should be carried out in accordance with MSC.1/Circ.1040/Rev.1 [MSC.1/Circ.1222/Rev.1]

## 5-YEARLY

### Lifesaving appliances

**Means of embarkation on and disembarkation from ships (gangways, accommodation ladders, incl. winch and fittings as well as use for pilot transfer)**

Examination and operational test with specified max. operational load (preferably within survey window) [SOLAS II-1/3-9.3 & MSC.1/Circ.1331]

**Launching appliances**

- Dynamic test of the winch brake (within survey window) [SOLAS III/20.11.1.3; MSC.1/Circ.1206/Rev.1/ Appendix of Annex 1]

- On-load release gear/ automatic release hooks five yearly overhaul and operational test incl. free-fall lifeboat release system[24] [SOLAS III/20.11.2.3, 20.11.2.4 + 20.11.3.3; MSC.1/Circ1206/Rev.1]

### Fire protection and fire-fighting equipment

**Self-contained breathing apparatuses (SCBAs)[25]**

Perform hydrostatic testing of all self-contained breathing apparatus cylinders [MSC.1/Circ1432]

**Portable fire extinguishers**

At least one fire extinguisher of each type manufactured in the same year and kept on board a ship shall be test discharged as part of a fire drill [Res.A.951(23)]

**Wheeled (mobile) fire extinguishers**

Visual examination of at least one wheeled (mobile) extinguisher of each type manufactured in the same year and kept on board [MSC.1/Circ.1432]

### Fixed firefighting systems

**Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)**

Perform internal inspection of all control valves [MSC.1/Circ.1432] & [MSC.1/Circ.1318/Rev.1]

**Foam fire-extinguishing systems**

- Perform internal inspection of all control valves [MSC.1/Circ.1432] & [MSC.1/Circ.1318/Rev.1]
- Flush all high expansion foam system piping with fresh water, drain and purge with air [MSC.1/Circ.1432]
- Check all nozzles to prove they are clear of debris [MSC.1/Circ.1432]
- Test all foam proportions or other foam mixing devices to confirm that the mixing ratio tolerance is within +30 to -10% of the nominal mixing ratio defined by the system approval [MSC.1/Circ.1432]

**Water mist, water spray and sprinkler systems**

- Flush all ro-ro deck deluge system piping with water, drain and purge with air [MSC.1/Circ.1432]
- Perform internal inspection of all control/section valves. Water quality testing should be conducted in all corresponding piping sections, if not previously tested as outlined in MSC.1/Circ.1432 (as amended by MSC.1/Circ.1516) within the last five years [MSC.1/Circ.1432 (as amended by MSC.1/ Circ.1516)] & [MSC.1/Circ.1318/Rev.1]
- Check condition of any batteries or renew in accordance with manufacturer's recommendations [MSC.1/Circ.1432]
- For each section where the water is refilled after being drained or flushed, water quality should meet manufacturer's guidelines. Testing of the renewed water quality should be conducted and recorded as a new baseline reference to assist future water quality monitoring for each corresponding section [MSC.1/Circ.1432 (as amended by MSC.1/ Circ.1516)]
- Perform internal examination of water pressure cylinders.

### Radio and navigational equipment

**Satellite emergency position-indicating radio beacons (EPIRBs)[26] [SOLAS IV/15.9.2]**

(Shore-based maintenance)

[24] 1.1 x load test no longer required for free-fall lifeboats (ref III/20.11.2.4); only operational test with operating crew or simulated launching required after overhaul

[25] Aluminium and composite cylinders shall be tested to the satisfaction of the Administration.

[26] Certificate of compliance or test report shall be issued.

| 10-YEARLY |
|---|
| **Fire protection and fire-fighting equipment** |
| **Portable fire extinguishers**<br>All fire extinguishers together with propellant cartridges shall be hydraulically tested in accordance with the recognized standard or the manufacturer's instructions [Res.A.951 (23)] |
| **Wheeled (mobile) fire extinguishers**<br>All fire extinguishers together with propellant cartridges shall be hydraulically tested in accordance with the recognized standard or the manufacturer's instructions [MSC.1/Circ.1432] |
| **Fixed firefighting systems** |
| **Aerosol fire-extinguishing systems**<br>Condensed or dispersed aerosol generators are to be renewed in accordance with manufacturer's recommendations [MSC.1/Circ.1432] |
| **CO2 fire-extinguishing systems**<br>High pressure cylinders shall be subjected to periodical tests at intervals not exceeding 10 years. At the 10-year inspection, at least 10% of the total number provided shall be subjected to an internal inspection and hydrostatic test. If one or more cylinders fail, a total of 50% of the on-board cylinders shall be tested. If further cylinders fail, all cylinders shall be tested [MSC.1/Circ.1318] |
| **Dry chemical powder systems**[27]<br>Subject all powder containment vessels to hydrostatic or non-destructive testing (NDT) carried out by an accredited service agent [MSC.1/Circ.1432] |
| **Water mist, water spray and sprinkler systems**<br>Perform hydrostatic test and internal examination for gas and water pressure cylinders [MSC.1/Circ.1432] |

| OTHER INTERVALS | Intervals |
|---|---|
| **Life saving appliances** | |
| **Emergency escape breathing devices (EEBDs)**[28]<br>- Hydrostatic test and internal inspection of cylinders [IACS Rec. No.88 SI II-2/14.2 item 3.11.1.1 g5)] | As specified by the manufacturer (or every 5 years if not specified) |
| **Falls used in launching appliances**<br>- Renewal [SOLAS III/20.4] | After 5 years at the latest, or earlier if necessary due to deterioration |
| **Replacement of first-aid outfit and anti-seasickness medicine of lifeboat equipment**<br>- LSA Code | Maker's expiry date |
| **Replacement of food rations of lifeboat equipment**<br>- LSA Code | Maker's expiry date |
| **Rescue boat launching and maneuvering in the water**<br>- SOLAS III/19.3.3.6 | 3-monthly (as far as practical monthly) |
| **Battery replacement of lifebuoy lights**[29]<br>- LSA Code | Maker's expiry date |
| **Replacement of rocket parachute flares and rocket line- throwing appliances**<br>- LSA Code | Maker's expiry date |
| **Replacement of smoke signals**<br>- LSA Code | Maker's expiry date |

[27] In case of NDT, contact DBS prior to the testing.

[28] Intervals specified in recognized international standards (e.g. ISO, EN) are to be observed.

[29] Annually, if not marked with expiry date.

| | | |
|---|---|---|
| **Fixed firefighting systems** | | |
| **Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)** | | |
| Flexible hoses (replacement) [MSC.1/Circ.1318] | To be replaced at the intervals recommended by the manufacturer and not exceeding every 10 years | |
| **CO2 fire-extinguishing systems** | | |
| - Maintenance by approved service supplier[30]. [MSC.1/Circ.1318] | - As per manufacturer's instructions | |
| - Flexible hoses shall be replaced at the intervals recommended by the manufacturer and not exceeding every 10 years.[31] [MSC.1/Circ.1318] | - At least 10-yearly | |
| - Low pressure CO2 bulk storage containers are subject to internal survey if the content has been released and the container is more than 5 years old. | - If content has been released and is more than 5 years old | |
| **Deep fat cooking fire extinguishing systems** | | |
| - Overhaul and hydrostatic testing [10-yearly (from date of manufacture of pressure vessels)] | 10-yearly (from date of manufacture of pressure vessels) | |
| **Dry chemical powder systems** | | |
| - Maintenance by approved service supplier.[32] | As per manufacturer's instructions | |
| **Water mist, water spray and sprinkler systems** | | |
| - Fixed local-application fire-extinguishing system for engine rooms Tests and inspections as per maker's recommendation and the Society's type[33] approval certificate | As per maker's instructions and type approval certificate | |
| **Radio and navigational equipment** | | |
| **Standard magnetic compass** | | |
| - Determination of magnetic compass error [STCW Code/Sec. A-VIII/2.34.2] | Once a watch | |
| - *Adjustment, incl. curve of residual deviation[34] [Flag state requirements] | *Individual flag state requirements | |
| **Other** | | |
| **Medical oxygen** | | |
| - Replacement of oxygen [National pharmaceutical regulations, if applicable] | According to national pharmaceutical regulations or maker's expiry date | |
| - Hydrostatic test and internal inspection of cylinders [Flag state, if applicable] | As per maker's instructions and/or international standards (e.g. ISO, EN) and/or flag's requirements | |



30 Only if requirements from the manufacturer are available in addition to those in this table.

31 Hose assemblies are to be delivered on board with a Recognized Organization test certificate.

32 Only if requirements from the manufacturer are available in addition to those in this table.

33 Competent crew member (with an advanced firefighting training course) or person trained in the maintenance of such system or as per maker's instructions and type approval certificate.

34 Table or curve of residual deviation to be available at all times and compass deviation book to be properly maintained, will be checked annually during safety equipment surveys. Res.A.1104(29), item (EA) 1.2.1.27

## ADDITIONAL REQUIREMENTS

| |
|---|
| **OIL TANKERS** |
| **ANNUALLY** |
| **Life saving appliances** |
| **Examination of lifeboats with sprinkler system.** |
| **CHEMICAL AND GAS TANKERS** |
| **MONTHLY** |
| **Fire protection and fire-fighting equipment** |
| **Air-recharging system for SCBAs**<br>The compressed-air equipment shall be inspected [BCH Code] |
| **Self-contained breathing apparatuses (SCBAs)**<br>The breathing apparatus shall be inspected [BCH Code, IBC Code, IGC Code] |
| **ANNUALLY** |
| **Life saving appliances** |
| **Lifeboats with self-contained air-support system**[35]<br>Examination (incl. external inspection of air cylinders) [MSC.1/Circ.1206/Rev.1] |
| **Self-contained breathing apparatuses (SCBAs).**<br>The breathing apparatus shall be inspected [BCH Code, IBC Code, IGC Code] |
| **Fire protection and fire-fighting equipment** |
| **Air-recharging system for SCBAs**[36]<br>The equipment shall be inspected and tested [IGC Code] |
| **Self-contained breathing apparatuses (SCBAs)**<br>The equipment shall be inspected and tested [BCH Code, IBC Code, IGC Code] |
| **5-YEARLY** |
| **Life saving appliances** |
| **Lifeboats with self-contained air-support system**<br>Hydrostatic test of air cylinders [IACS Rec. No. 88] |
| **CHEMICAL TANKERS** |
| **ANNUALLY** |
| **Fixed firefighting systems** |
| **Foam fire-extinguishing systems**<br>Alcohol-resistant fluorine protein-based foam concentrates are subjected to a chemical stability test with acetone before being poured into foam tank, and a new chemical stability test is performed after installation on board (not less than 14 days after installation on board) [MSC.1/Circ.1312] |

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| **PASSENGER SHIPS** |
| **WEEKLY** |
| **Other** |
| **Low-location lighting systems**<br>Verify that the low-location lighting systems are functional by switching off normal lighting in selected locations [MSC.1/Circ.1432] |
| |

[35] Incl. external inspection of air cylinders.

[36] By crew provided a suitable measurement device is available on board. The test device is to be agreed with the maker of the air recharging system.

| ANNUALLY |
|---|
| **Life saving appliances** |
| **Marine evacuation systems (MES)**[37]<br>Service [SOLAS III/20.8.1] |
| **Fixed firefighting systems** |
| **Water mist, water spray and sprinkler systems**<br>Fixed local-application fire-extinguishing system for engine rooms full flow test of minimum one section and spot check of fire detection/automatic release system shall be carried out.[38] |
| **2-YEARLY** |
| **Fixed firefighting systems** |
| **Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)**<br>Maintenance by approved service supplier. |
| **Aerosol fire-extinguishing systems**<br>Maintenance by approved service supplier. |
| **CO2 fire-extinguishing systems**<br>- All high pressure cylinders and pilot cylinders shall be weighed or have their contents verified by other reliable means to confirm that the available charge in each is above 90% of the nominal charge. Cylinders containing less than 90% of the nominal charge shall be refilled. The liquid level of low pressure storage tanks shall be checked to verify that the required amount of carbon dioxide for protection against the largest hazard is available [MSC.1/Circ.1318]<br>- The hydrostatic test date of all storage containers shall be checked. High-pressure cylinders should be subjected to periodical tests at intervals not exceeding 10 years. At the 10-year inspection, at least 10% of the total number provided should be subjected to an internal inspection and hydrostatic test. If one or more cylinders fail, a total of 50% of the onboard cylinders should be tested. If further cylinders fail, all cylinders should be tested. Before the 20-year anniversary and every 10-year anniversary thereafter, all cylinders should be subjected to a hydrostatic test. Flexible hoses should be replaced at the intervals recommended by the manufacturer and not exceeding every 10 years. When cylinders are removed for testing, the cylinders should be replaced such that the quantity of fire-extinguishing medium continues to satisfy the requirements of 2.2.1 of chapter 5 of the FSS Code, subject to SOLAS regulation II-2/14.2; and [MSC.1/Circ.1318]<br>- The discharge piping and nozzles shall be tested to verify that they are not blocked. The test shall be performed by isolating the discharge piping from the system and blowing dry air or nitrogen from test cylinders or suitable means through the piping [MSC.1/Circ.1318]<br>- Where possible, all activating heads shall be removed from the cylinder valves and tested for correct functioning by applying full working pressure through the pilot lines. In cases where this is not possible, pilot lines shall be disconnected from the cylinder valves and blanked off or connected together and tested with full working pressure from the release station and checked for leakage. In both cases, this shall be carried out from one or more release stations when installed. If manual pull cables operate the remote release controls, they shall be checked to verify that the cables and corner pulleys are in good condition and freely move and do not require an excessive amount of travel to activate the system [MSC.1/Circ.1318]<br>- All cable components should be cleaned and adjusted as necessary, and the cable connectors shall be properly tightened. If the remote release controls are operated by pneumatic pressure, the tubing shall be checked for leakage, and the proper charge of the remote releasing station's pilot gas cylinders shall be verified. All controls and warning devices shall function normally, and the time delay, if fitted, shall prevent the discharge of gas for the required time period [MSC.1/Circ.1318]<br>- After completion of the work, the system shall be returned to service. All releasing controls shall be verified as being in the proper position and connected to the correct control valves. All pressure switch interlocks shall be reset and returned to service. All stop valves shall be in the closed position [MSC.1/Circ.1318] |
| **QUARTERLY** |
| **Fire protection and fire-fighting equipment** |
| **Fire doors**<br>Test all fire doors located in main vertical zone bulkheads for local operation [MSC.1/Circ1432] |

[37] Administration may extend this period to 17 months

[38] Automatic release is not applicable for continuously manned engine rooms.

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| **5-YEARLY** |
| **Other** |
| **Lightweight survey**<br>SOLAS II-1/5.5 IS Code VIII/8.1.5 |
| **Low-location lighting systems**<br>Test the luminance in accordance with the procedures in resolution A.752(18) [MSC.1/Circ.1432, Res.A.752(18)] |
| **6-YEARLY** |
| **Life saving appliances** |
| **Marine evacuation systems (MES)**[39]<br>Test [SOLAS III/20.8.2] |

| CARGO SHIPS |
|---|
| **2,5-YEARLY** |
| **Fixed firefighting systems** |
| **Aerosol fire-extinguishing systems**[40]<br>Maintenance |
| **Equivalent gas fire-extinguishing systems (e.g. FM 200, NOVEC 1230 or Halon)**[41]<br>Maintenance |
| **CO2 fire-extinguishing systems**[42]<br>- All high pressure cylinders and pilot cylinders shall be weighed or have their contents verified by other reliable means to confirm that the available charge in each is above 90% of the nominal charge. Cylinders containing less than 90% of the nominal charge shall be refilled. The liquid level of low-pressure storage tanks shall be checked to verify that the required amount of carbon dioxide for protection against the largest hazard is available.<br>- The hydrostatic test date of all storage containers shall be checked [MSC.1/Circ.1318]<br>- The discharge piping and nozzles shall be tested to verify that they are not blocked. The test shall be performed by isolating the discharge piping from the system and blowing dry air or nitrogen from test cylinders or suitable means through the piping [MSC.1/Circ.1318] |
| |
| |

[39] Deployment on rotational basis at intervals to be agreed by flag administration, however each system to be deployed at least once every six years.

[40] On each intermediate/ periodical and renewal survey.

[41] On each intermediate/ periodical and renewal survey.

[42] On each intermediate/ periodical and renewal survey.

| 5-YEARLY |
| --- |
| **Fixed firefighting systems** |
| **CO2 fire-extinguishing systems**<br>- Where possible, all activating heads shall be removed from the cylinder valves and tested for correct functioning by applying full working pressure through the pilot lines. In cases where this is not possible, pilot lines shall be disconnected from the cylinder valves and blanked off or connected together and tested with full working pressure from the release station and checked for leakage. In both cases, this shall be carried out from one or more release stations when installed. If manual pull cables operate the remote release controls, they shall be checked to verify that the cables and corner pulleys are in good condition and freely move and do not require an excessive amount of travel to activate the system [MSC.1/Circ.1318]<br>- All cable components should be cleaned and adjusted as necessary, and the cable connectors shall be properly tightened. If the remote release controls are operated by pneumatic pressure, the tubing shall be checked for leakage, and the proper charge of the remote releasing station's pilot gas cylinders shall be verified. All controls and warning devices shall function normally, and the time delay, if fitted, shall prevent the discharge of gas for the required time period [MSC.1/Circ.1318]<br>- After completion of the work, the system shall be returned to service. All releasing controls shall be verified as being in the proper position and connected to the correct control valves. All pressure switch interlocks shall be reset and returned to service. All stop valves shall be in the closed position [MSC.1/Circ.1318] |
| **Water mist, water spray and sprinkler systems**<br>Fixed local-application fire-extinguishing system for engine rooms full flow test of minimum one section and spot check of fire detection/automatic release system shall be carried out.[43] |



[43] Automatic release is not applicable for continuously manned engine rooms.

# Part B – On board drills

| ALL SHIPS |
|---|
| **WEEKLY** |
| **Survival craft, rescue boats and launching appliances (visual inspection)**<br>[SOLAS III/30.6.1 & MSC 402(96)] |
| **Test run of lifeboat and rescue boat engines**[44]<br>[SOLAS III/20.6.2 & MSC.402(96)] |
| **Testing of public address and general alarm system**<br>[SOLAS III/20.6.4] |
| **Steering gear tests**<br>Within 12 hours before departure or weekly for ships which regularly engage on voyages of short duration [SOLAS V/26.1 & .2] |
| **MONTHLY** |
| **Abandon ship drill – launching lifeboats & rescue boats**[45]<br>[SOLAS III/19.3.4.3 & 19.3.4.6, MSC.1/Circ.1578] |
| **Davit-launched lifeboats – turned out from stowed condition**<br>[SOLAS III/20.7.1] |
| **Inspection of LSA including lifeboat equipment**<br>[SOLAS III/20.7.2 & III/36.1] |
| **2-MONTHLY** |
| **Enclosed space safe entry and rescue drills**<br>[SOLAS III/19.3.3 & 19.3.6] |
| **3-MONTHLY** |
| **Abandon ship drill – launching lifeboats**<br>[SOLAS III/19.3.4.3 & 19.3.4.6 & MSC/Circ.1578] |
| **Abandon ship drill – free-fall lifeboat drill**<br>[SOLAS III/19.3.4.4 & MSC/Circ.1578] |
| **Emergency steering drill**<br>[SOLAS V/26.4] |
| **4-MONTHLY** |
| **Davit launched liferaft training**<br>[SOLAS III/19.4.3] |
| **6-MONTHLY** |
| **Abandon ship drill – launch (or stimulated launch) free-fall lifeboats**<br>[SOLAS III/19.3.4.4 & MSC/Circ.1578] |
| **ANNUALLY** |
| **Launching appliances – inspect wire ropes**<br>[SOLAS III/20.4 & MSC.402(96)] |
| **2-YEARLY** |
| **Abandon ship drill – MES training**<br>[SOLAS III/19.3.4.8] |
| **5-YEARLY** |
| **Launching appliances – wire ropes renewed**<br>When necessary due to deterioration of the falls or at intervals of not more than 5 years [SOLAS III/20.4 & MSC.402(96)] |
| **PASSENGER SHIPS** |
| **WEEKLY** |
| **Watertight door drills**<br>[SOLAS II-1/21 (II-1/23)] |
| **Abandon ship drill and fire drill**<br>[SOLAS III/19.3, III/30] |

[44] In special cases the Flag may waive this requirement for ships constructed before 1 July 1986.

[45] Dedicated rescue boats launched monthly, if possible.

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|---|
| **Abandon ship drill – lowering lifeboats**<br>[SOLAS III/19.3.4.1 & MSC/Circ.1578] |
| **Abandon ship drill – MES drill**<br>[SOLAS III/19.3.4.8] |
| **Abandon ship drill – testing of emergency lightning**<br>[SOLAS III/19.3.4.9] |
| **LSA & fire on-board training**<br>[SOLAS III/19.4.1 & .2] |
| **3-MONTHLY** |
| **Damage control drill**<br>[SOLAS II-1/19-1] |
| **ANNUALLY** |
| **Damage control drill**<br>Activation of the shore-based support, if provided, to conduct stability assessments for the simulated damage conditions [SOLAS II-1/19-1] |
| **CARGO SHIPS** |
| **WEEKLY** |
| **Davit launch lifeboats – Turned out from stowed position**<br>[SOLAS III/20.7.1] |
| **MONTHLY** |
| **Abandon ship drill and fire drill**<br>[SOLAS III/19.3]<br>**Abandon ship drill – lowering lifeboats**<br>[SOLAS III/19.3.4.1, MSC/Circ.1578]<br>**Abandon ship drill – MES drill**<br>[SOLAS III/19.3.4.8]<br>**Abandon ship drill – Testing of emergency lighting**<br>[SOLAS III/19.3.4.9]<br>**LSA & fire on-board training**<br>[SOLAS III/19.4.1 & .2] |