INTERNATIONAL MARITIME ORGANIZATION

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REVISION OF THE FISHING VESSEL SAFETY CODE AND VOLUNTARY GUIDELINES

Note by the Secretariat

SUMMARY	
Executive summary:	This document contains the relevant parts of the draft Safety Code and Voluntary Guidelines for consideration of the Sub-Committee as requested by SLF 44
Action to be taken:	Paragraph 3
Related documents:	SLF 44/18, annexes 3 and 4

1 SLF 44 agreed in principle to the text of the draft revised Fishing Vessel Safety Code and Voluntary Guidelines for the Design, Construction and Equipment of Small Fishing Vessels. SLF 44 also identified parts of the draft revised Safety Code and Voluntary Guidelines to be referred to other Sub-Committees for consideration before finalising the text to be submitted to the Committee for approval.

2 Attached at annexes are the parts of the Code and Guidelines as considered relevant to the work of the Sub-Committee by SLF 44.

Action requested of the Sub-Committee

3 The Sub-Committee is invited to consider the information provided and take action as appropriate.

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ANNEX 1

DRAFT REVISED FAO/ILO/IMO CODE OF SAFETY FOR FISHERMEN AND FISHING VESSELS, PART B

Preface

1 The Code of Safety for Fishermen and Fishing Vessels originated from a resolution adopted by the International Labour Organization (ILO) in 1962. Subsequent to that resolution, the Food and Agriculture Organization (FAO), ILO and the International Maritime Organization (IMO)* entered into an agreement to co-operate, within their respective fields of experience, to elaborate the Code. The agreement acknowledged that the respective areas of competence are:

- FAO - fisheries in general;
- ILO - labour in the fishing industry; and
- IMO - safety of life, vessels and equipment at sea.

The Code was elaborated in two parts:

- part A to be addressed to skippers and crews, containing operational and occupational requirements; and
- part B to be addressed to shipbuilders and owners containing requirements for the construction and equipment for fishing vessels.

2 Part A of the Code was adopted by the first session of the Joint FAO/ILO/IMO Meeting of Consultants on Safety on Board Fishing Vessels which was held at ILO Headquarters in Geneva in September 1968.

3 Later amendments to part A were approved by the Maritime Safety Committee of IMO, at its 30th session in the Spring of 1973. At the same session, the Committee approved the final text of part B which was endorsed by the FAO Council at its 64th session (Autumn 1974) and also endorsed by the Governing Body of the ILO at its 195th session (February 1975).

4 In 1977, an International Conference on the Safety of Fishing Vessels adopted the Torremolinos International Convention on the Safety of Fishing Vessels, 1977 which, for a number of reasons did not enter into force. Consequently, a further International Conference was convened, also in Torremolinos, Spain, that adopted the Torremolinos Protocol of 1993 relating to the Torremolinos International Convention on the Safety of Fishing Vessels, 1977, hereinafter referred to as the Protocol.

5 The Conference also adopted, *inter alia*, resolution 4 in which it is noted that that the Protocol does not contain specific requirements for certain safety equipment for fishing vessels of less than 45 m in length, such as life-saving appliances. Consequently, it urged all States, in view of the of the inherent risks involved in the operation of fishing vessels, to consider the requirements for safety equipment when deciding, in accordance with article 3(4) of the Protocol, which regulations they should apply, wholly or in part, to fishing vessels of 24 m in length and over but less than the applicable length criteria of the chapter in question.

* The former name of the Organization, the Inter-Governmental Maritime Consultative Organization (IMCO) was changed to the "International Maritime Organization (IMO)" by virtue of amendments to the Organization's Convention which entered into force on 22 May 1982.

6 It was also noted, that initiatives had been taken by certain States to develop uniform regional standards as called for in article 3(5) of the Protocol to ensure that the safety of fishing vessels covered by article 3(4) thereof is maintained at an acceptable level by determining which regulations, contained in the annex to the Protocol should apply, wholly or in part, to such vessels.

7 In its review of regional standards so developed, the Maritime Safety Committee (MSC) of IMO noted that they had been examined by SLF with a view to the desirability of developing a template for other countries or regions (see documents MSC 68/INF.10 and MSC 70/INF.24). It was also noted, that in the examination process, the provisions of these regional standards had provided valuable information in relation to the revision of part B of the Code.

8 The Maritime Safety Committee of IMO accepted that for certain sizes of vessels, the minimum standards contained in the Protocol should be applied and considered that it would be appropriate to refer to such provisions of the Protocol, where relevant, in the revised text of Part B of the Code. It was also accepted by the Committee, that any such references must stress the voluntary nature of the Code and substitute the mandatory terms "shall" and "will" with the word "should".

9 The Maritime Safety Committee of IMO acknowledged that there had been significant developments in relation to the management of fisheries that contained principles in support of the safety of fishermen and fishing vessels. It noted in particular the:[1]

.1 Agreement for the Interpretation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks of 1995; and

.2 Code of Conduct for Responsible Fisheries adopted by the Conference of FAO in 1995.

10 The Maritime Safety Committee of IMO recognized that the safety at sea aspects contained within these instruments could be relevant in relation to the revision of part B, in particular the:

.1 arrangements for the monitoring control and surveillance of fishing vessels including recommendations for the reporting of the position of a fishing vessel at sea;

.2 marking of fishing vessels in accordance with uniform and internationally recognized systems such as the FAO Standard Specifications for the Marking and Identification of Fishing Vessels[2]; and

.3 the integration of fishing vessels into search and rescue systems.

11 In entrusting the revision of part B of the Code to the Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF), the Maritime Safety Committee of IMO recommended that the recent developments in fishing vessel design and fishing operations should be taken into consideration. In this regard, IMO was requested to invite FAO and ILO to participate in the revision. Both Organizations responded positively to the subsequent invitation.

[1] IMO has been informed by the UNGA, CSD and FAO of the existence of these instruments. More recently (1999/2000) FAO has provided more detailed information in relation to IUU fishing to the MSC and MEPC and the FSI Sub-Committee.
[2] Refer to MSC/Circ.582.

12 The Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) established a correspondence group* to facilitate the revision of part B of the Code and following clearance by the relevant Sub-Committees of the IMO, the revised text was submitted to the Maritime Safety Committee of IMO at its xx session (year) at which it was approved.

13 The Maritime Safety Committee of IMO also considered the question of stationing in all principle fishing grounds of vessels which could provide hospital, rescue and emergency repair facilities, and noted that in the major regulatory areas, fisheries protection vessels were deployed. It was noted, however, that in many areas, fisheries protection had been sub-contracted to governmental and non-governmental agencies or entities and that the vessels involved were not always dedicated protection vessels.[3] Thus the Committee considered that the information note on Support Vessels on Principle Fishing Grounds attached to part B (in 1975) is outdated and should be deleted.

14 Consequently, it was recommended that IMO in cooperation with FAO should investigate the utility of providing a similar information note in light of the developments in fisheries management that could contribute to the safety of fishermen and the safety of fishing vessels[4].

15 The Maritime Safety Committee recalled that it had been informed at its seventy-second session, March 2000, by ILO of the outcome of its Tripartite Meeting on safety and health in the fishing industry, Geneva, 13 to 17 December 1999 (MSC72/22/6). The Committee noted with appreciation that, following consultation with IMO, ILO considered that ILO should take a leading role in revising the Code of Safety for Fishermen and Fishing Vessels, Part A, Safety and Health and Practice.

16 Concerning the procedures for future amendments to both parts A and B of the Code, the Maritime Safety Committee of IMO considered that any amendments should be effected as expeditiously as possible. It was agreed that non-controversial amendments should be approved by correspondence but joint meetings of experts might be necessary for other amendments for which no ready agreement by correspondence can be reached.

17 Recognizing that the majority of items covered by the Code are within the scope of IMO and noting the different working procedures within the three Organizations and that the IMO Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) holds regular meetings, it was agreed that:

.1 IMO should act as a focal point for coordinating proposed amendments to the Code and in particular the IMO Secretariat should undertake to receive any proposed amendments, to distribute them to the Organizations and to collate their respective comments;

.2 any future joint FAO/ILO/IMO meeting should be held, whenever possible, in conjunction with a meeting of the Sub-Committee; and

.3 any proposed amendments should always be subject to the final approval of the appropriate bodies of the three Organizations.

18 Part A as revised by the second Joint Meeting of Consultants is published by IMO as a separate booklet (Sales Number 75.08.E).

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* A list of the Members of the Correspondence Group is given on pages xx - xxx.

3 This refers to the fact that normal commercial fishing vessels are often used on a rotational basis or under contract.

4 Alternatively, the information note could describe systems for the integrated monitoring of fisheries and give details of where such systems are currently in place whether voluntary or mandatory.

CHAPTER I
GENERAL PROVISIONS

1.1 Purpose and Scope

1.1.1 The purpose of this part of the Code is to provide information on design, construction and equipment of fishing vessels with a view to promoting the safety of fishing vessels and safety and health of the crew. The Code is not a substitute for national laws and regulations nor is it a substitute for the provisions of international instruments in relation to safety of fishing vessels and crew although it may serve as a guide to those concerned with framing such national laws and regulations.

1.1.2 The Code is voluntary. It is wider in scope than the Torremolinos Protocol and only the minimum requirements to ensure the safety of fishing vessels and safety and health of the crew are given in this part of the Code for fishing vessels of 24m in length and above. Each competent authority should take every possible measure to promote the safety of the vessels concerned.

1.1.3 Certain sections of this part of the Code make reference to the minimum standards set out in the provisions of the Torremolinos International Convention for the Safety of Fishing Vessels, 1977, as modified by the Torremolinos Protocol of 1993 relating thereto. For the purpose of this part of the Code, these are considered to be the minimum standards acceptable in relation to the classes of vessels, as prescribed in the Protocol, to which they should be applied.

1.1.4 Regional uniform standards or guidelines that have been submitted to IMO as provided for under Article 3, Paragraphs (4) and (5) of the Protocol for fishing vessels registered and operating in such regions, prevail over Chapters IV, V, VII and IX of this part of the Code. For all other fishing vessels of 24 m in length and over but less than 45 m in length, that are registered in such regions but operate, or are intended for operation outside the region, the whole of this part of the Code would serve as a guide.

1.1.5 Unless otherwise stated, the provisions of this part of the Code are intended to apply to new decked fishing vessels of 24 m in length and above and in the following categories:

Category 1 - Vessels intended for fishing operations in unlimited sea areas;

Category 2 - Vessels intended for fishing operations in sea areas up to 200 nautical miles from a place of shelter;

Category 3 - Vessels intended for fishing operations in sea areas up to 50 nautical miles from a place of shelter.

However, even where not otherwise stated, the competent authority should also apply these provisions, as far as reasonable and practicable, to existing decked fishing vessels.

1.1.6 The provisions of this part of the Code do not apply to fishing vessels for sport or recreation or to processing vessels.

1.1.7 Where operating experience has clearly shown that departure from the provisions of this part of the Code is justified, or in applying this part of the Code to any other equivalent area of operation for any vessel covered by this Part of the Code, the competent authority may permit adequate alterations or substitutions thereof.

1.2 Definitions

1.2.1 For the purpose of this part of the Code, unless expressly provided otherwise, the following definitions apply:

(i) *Fishing vessel* - in the following referred to as *vessel* - is a vessel used commercially for catching fish, whales, seals, walrus, or other living resources of the sea.

(ii) *Processing vessel* is a vessel used exclusively for processing fish and other living resources of the sea.

(iii) *Crew* means the skipper and all persons employed or engaged in any capacity on board a vessel on the business of that vessel.

(iv) *Competent authority* is the government of the State whose flag the vessel is entitled to fly.

(v) *New vessel* is a vessel the keel of which is laid, or which is at a similar stage of construction, on or after the date of adoption of the present revision to this Part of the Code.

(vi) *Existing vessel* is a vessel which is not a new vessel.

(vii) *Convention* means the International Convention for the Safety of Life at Sea, 1974.

(viii) *Protocol* means the Torremolinos International Convention for the Safety of Fishing Vessels, 1977, as modified by the Torremolinos Protocol of 1993 relating thereto.

(ix) *Place of shelter* is any naturally or artificially protected area easily accessible to the vessel and which can be used for sheltering the vessel in circumstances which are unfavorable to its safety.

(x) *Length* (L)* is to be taken as 96% on the waterline at 85% of the least depth measured from the keel line, or as the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In vessels designed with rake of keel the waterline on which this length is measured is to be parallel to the designed waterline.

(xi) The *forward and after perpendiculars* are to be taken at the forward and after ends of the length (L). The forward perpendicular is to be coincident with the foreside of the stem on the waterline on which the length is measured.

(xii) *Breadth* (B)* is the maximum breadth of the vessel, measured amidships to the moulded line of the frame in a vessel with a metal shell and to the outer surface of the hull in a vessel with a shell of any other material.

(xiii) (a) *The moulded depth* is the vertical distance measured from the keel line to the top of the working deck beam at side.

* Amendments adopted in 1983.

(b) In vessels having rounded gunwales, the moulded depth is to be measured to the point of intersection of the moulded lines of deck and side shell plating, the lines extending as though the gunwale were of angular design.

(c) Where the working deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the moulded depth is measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

(xiv) The *depth (D)* is the moulded depth amidships.

(xv) *Least depth** is the depth measured from the keel line to the top of the working deck beam at side at the point where a parallel to the keel line is tangent to the deck line. Where the working deck is stepped and the raised part of the deck extends over the point at which the least depth is to be determined, the least depth should be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

(xvi) *Deepest operating waterline* is the waterline related to the maximum permissible operating draft.

(xvii) *Freeboard (f_{min})* is the actual minimum freeboard and is the distance from the underside of the working deck at the side to a water-line, measured perpendicularly to the water-line, plus the minimum thickness of decking. When the working deck is stepped, the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is to be taken as the working deck.

(xviii) *Amidships* is the mid-length of L.

(xix) *Midship section* is that section of the hull defined by the intersection of the moulded surface of the hull with a vertical plane perpendicular to the water and centreline planes passing through amidships.

(xx) *Keel line*[*] is the line parallel to the slope of keel passing amidships through:

(a) the top of the keel or line of intersection of the inside of shell plating with the keel where a bar keel extends above that line of a vessel with a metal shell; or

(b) the rabbet lower line of the keel of a vessel with a shell of wood or a composite material;

(c) the intersection of a fair extension of the outside of the shell contour at the bottom with the centreline of a vessel with a shell of material other than wood and metal.

(xxi) *Baseline* is the horizontal line intersecting at amidships the keel line.

[*] Amendments adopted in 1983.

(xxii) *Working deck* is generally the lowest complete deck above the deepest operating waterline from which fishing is undertaken. In vessels fitted with two or more complete decks, the competent authority may accept a lower deck as a working deck provided that that deck is situated above the deepest operating waterline.

(xxiii) *Superstructure* is the decked structure on the working deck extending from side to side of the vessel or with the side plating not being inboard of the shell plating more than 0.04 B.

(xxiv) *Enclosed superstructure* is a superstructure with:

(a) enclosing bulkheads of efficient construction;

(b) access openings, if any, in those bulkheads fitted with permanently attached weathertight doors of a strength equivalent to the unpierced structure which can be operated from each side; and

(c) other openings in sides or ends of the superstructure fitted with efficient weathertight means of closing.

A raised quarter-deck is regarded as a superstructure.

A bridge or poop should not be regarded as enclosed unless access is provided for the crew to reach machinery and other working spaces inside those superstructures by alternative means which are available at all times when bulkhead openings are closed.

(xxv) *Superstructure deck* is that complete or partial deck or the top of a superstructure, deckhouse or other erections situated at a height of not less than 1.8 m above the working deck. Where this height is less that 1.8 m, the top of such deckhouses or other erections should be treated in the same way as the working deck.

(xxvi) *Height of a superstructure or other erection is* the least vertical distance measured at side from the top of the deck beams of a superstructure or an erection to the top of the working deck beams.

(xxvii) *Weather deck is* the uppermost deck exposed to weather and sea. Where the deck is not continuous the uppermost deck at the point in question should be taken as the weather deck**.**

(xxviii) *Weathertight* means that in any sea conditions water will not penetrate into the vessel.

(xxix) *Watertight* means capable of preventing the passage of water through the structure in any direction under a head of water for which the surrounding structure is designed.

(xxx) *Collision bulkhead* is a watertight bulkhead up to the working deck in the forepart of the vessel which meets the following conditions:

(a) The bulkhead is to be located at a distance from the forward perpendicular:

(i) not less than 0.05L and not more than 0.08L for vessels of 45m and over;

(ii) not less than 0.05L and not more than 0.05L plus 1.35m for vessels less than 45m in length except as may be allowed by the competent authority;

(iii) in no case less than 2.0m.

(b) Where any part of the underwater body extends forward of the forward perpendicular, e.g. a bulbous bow, the distance stipulated in subparagraph (a) is to be measured from a point at mid-length of the extension forward of the forward perpendicular or from a point 0.015L forward of the forward perpendicular, whichever is less.

(c) The bulkhead may have steps or recesses provided they are within the limits prescribed in subparagraph (a).

(xxxi) *Bow height*, defined as the vertical distance at the forward perpendicular between the waterline corresponding to the maximum permissible operating draught and the designed trim and the top of the exposed deck at side.

(xxxii) *Organization* means the International Maritime Organization[*].

(xxxiii) *Approved* means approved by the competent authority.

1.2.2 In this Part of the Code measurements are given in the metric system using the following abbreviations:

m	-	metre	
cm	-	centimetre	
mm	-	millimetre	
t	-	tonne (1,000 kg)	
kg	-	kilogramme	
mt	-	metre - tonne	
^{o} C	-	degree centigrade	
sec	-	second	
N	-	Newton	
KW	-	Kilowatt	kN*m/sec

1.3 Surveys

1.3.1 The hull, machinery, equipment and radio installations should be surveyed on completion and thereafter in such manner and at such intervals as the competent authority or a classification society recognized by the competent authority may consider necessary in order to ensure that their condition is in all respects satisfactory. The surveys should be such as to ensure that the arrangements, material, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, main and auxiliary machinery, electrical installations as well as crew accommodation and other equipment are in all respects satisfactory for the service for which the vessel is intended.

1.3.2 After any survey has been completed, no change should be made in the structural arrangements, machinery, equipment, etc., covered by the survey, without the sanction of the competent authority.

1.3.3 A fishing vessel should carry on board documentation relating to the safety of the vessel issued by the competent authority.

[*] Drawn from Article 2 of the 1993 Torremolinos Protocol

1.3.4 Documentation relating to the safety of the vessel should cease to be valid upon transfer of the vessel to the flag of another State. New safety documentation should only be issued when the competent authority is fully satisfied that the vessel is in compliance with the requirements of the relevant provisions.

1.4 Equivalents

Where the present provisions require that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a vessel, or that any particular provision shall be made, the competent authority may allow any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that vessel, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by the present provisions.[*]

CHAPTER VIII[5]
EMERGENCY PROCEDURES, MUSTERS AND DRILLS

[8.1 Application

The provisions of this chapter should apply to new and existing vessels of 24 m in length and over.][6]

8.2 General emergency alarm system, muster list and emergency instructions

8.2.1 The general emergency alarm system should be capable of sounding the general alarm signal consisting of seven or more short blasts followed by one long blast on the vessel's whistle or siren and additionally on an electrically operated bell or klaxon or other equivalent warning system which should be powered from the vessel's main supply and the emergency source of electrical power required by section 4.17.

8.2.2 All vessels should be provided with clear instructions for each crew member which should be followed in case of emergency.

8.2.3 The muster list should be posted up in several parts of the vessel and, in particular, in the wheelhouse, the engine room and in the crew accommodation and should include the information specified in the following paragraphs.

8.2.4 The muster list should specify details of the general alarm signal prescribed by 8.2.1 and also the action to be taken by the crew when this alarm is sounded. The muster list should also specify how the order to abandon ship will be given.

8.2.5 The muster list should show the duties assigned to the different members of the crew including:

(a) closing of watertight doors, fire doors, valves, scuppers, overboard shoots, sidescuttles, skylights, portholes and other similar openings in the vessel;

(b) equipping the survival craft and other life-saving appliances;

[*] Drawn from the text of regulation I/4(1) of the Torremolinos Protocol
[5] Please refer to Chapter VIII of the Protocol.
[6] Proposal by FAO to delete.

(c) preparation and launching of survival craft;

(d) general preparation of other life-saving appliances;

(e) use of communication equipment; and

(f) manning of fire parties assigned to deal with fires.

8.2.6 In vessels of less than 45 m in length the competent authority may permit relaxation of the requirements of 8.2.5 if satisfied that, due to the small number of crew members, no muster list is necessary.

8.2.7 The muster list should specify which officers are assigned to ensure that the life-saving and fire appliances are maintained in good condition and are ready for immediate use.

8.2.8 The muster list should specify substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.

8.2.9 The muster list should be prepared before the vessel proceeds to sea. After the muster list has been prepared, if any change takes place in the crew which necessitates an alteration in the muster list, the skipper should either revise the list or prepare a new list.

8.3 Abandon ship training and drills

8.3.1 Practice musters and drills

(a) Each member of the crew should participate in at least one abandon ship drill and one fire drill every month. However, on vessels less than 45 m in length, the competent authority may modify this requirement, provided that at least one abandon ship and one fire drill is held at least every three months. The drills of the crew should take place within 24 hours of the vessel leaving a port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular vessel in the previous muster. The competent authority may accept other arrangements that are at least equivalent for those classes of vessel for which this is impracticable.

(b) Each abandon ship drill should include:

(i) summoning of crew to muster stations with the general emergency alarm and ensuring that they are made aware of the order to abandon ship specified in the muster list;

(ii) reporting to stations and preparing for the duties described in the muster list;

(iii) checking that crew are suitably dressed;

(iv) checking that lifejackets are correctly donned;

(v) lowering of at least one lifeboat after any necessary preparation for launching;

(vi) starting and operating the lifeboat engine;

(vii) operation of davits used for launching liferafts.

(c) Each fire drill should include:

(i) reporting to stations and preparing for the duties described in the fire muster list;

(ii) starting of a fire pump, using at least the two required jets of water to show that the system is in proper working order;

(iii) checking of fireman's outfit and other personal rescue equipment;

(iv) checking of relevant communication equipment;

(v) checking the operation of watertight doors, fire doors, fire dampers and means of escape;

(vi) checking the necessary arrangements for subsequent abandoning of the vessel.

(d) Different lifeboats should, as far as practicable, be lowered in compliance with the requirements of subparagraph (b)(v) at successive drills.

(e) Drills should, as far as practicable, be conducted as if there were an actual emergency.

(f) Each lifeboat should be launched with its assigned operating crew aboard and manoeuvred in the water at least once every 3 months during an abandon ship drill.

(g) As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, should be launched each month with their assigned crew aboard and manoeuvred in the water. In all cases this requirement should be complied with at least once every 3 months.

(h) If lifeboat and rescue boat launching drills are carried out with the vessel making headway, such drills should, because of the dangers involved, be practised in sheltered waters only and under the supervision of an officer experienced in such drills.

(i) Emergency lighting for mustering and abandonment should be tested at each abandon ship drill.

(j) The drills may be adjusted according to the relevant equipment required by those regulations. However, if equipment is carried on a voluntary basis, it should be used in the drills and the drills should be adjusted accordingly.

8.3.2 On-board training and instructions

(a) On-board training in the use of the vessel's life-saving appliances, including survival craft equipment, should be given as soon as possible but not later than 2 weeks after a crew member joins the vessel. However, if the crew member is on a regularly scheduled rotating assignment to the vessel, such training should be given not later than 2 weeks after the time of first joining the vessel.

(b) Instructions in the use of the vessel's life-saving appliances and in survival at sea should be given at the same intervals as the drills. Individual instruction may cover different parts of the vessel's life-saving system, but all the vessel's life-saving equipment and appliances should be covered within any period of 2 months. Each member of the crew should be given instructions which should include but not necessarily be limited to:

(i) operation and use of the vessel's inflatable liferafts, including precautions concerning nailed shoes and other sharp objects;

(ii) problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures;

(iii) special instructions necessary for use of the vessel's life-saving appliances in severe weather and severe sea conditions.

(c) On-board training in the use of davit-launched liferafts should take place at intervals of not more than 4 months on every vessel fitted with such appliances. Whenever practicable this should include the inflation and lowering of a liferaft. This liferaft may be a special liferaft intended for training purposes only, which is not part of the vessel's life-saving equipment; such a special liferaft should be conspicuously marked.

8.3.3 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 should be recorded in such logbook as may be prescribed by the competent authority. If a full muster, drill or training session is not held at the appointed time, an entry should be made in the logbook stating the circumstances and the extent of the muster, drill or training session held.

8.3.4 Training manual

(a) A training manual should be provided in each crew messroom and recreation room or in each crew cabin. The training manual, which may comprise several volumes, should contain instructions and information, in easily understood terms illustrated wherever possible, on the life-saving appliances provided in the vessel and on the best methods of survival. Any part of such information may be provided in the form of audio-visual aids in lieu of the manual. The following should be explained in detail:

(i) donning of lifejackets and immersion suits, as appropriate;

(ii) muster at the assigned stations;

(iii) boarding, launching, and clearing the survival craft and rescue boats;

(iv) method of launching from within the survival craft;

(v) release from launching appliances;

(vi) methods and use of devices for protection in launching areas, where appropriate;

(vii) illumination in launching areas;

(viii) use of all survival equipment;

(ix) use of all detection equipment;

(x) with the assistance of illustrations, the use of radio life-saving appliances;

(xi) use of drogues;

(xii) use of engine and accessories;

(xiii) recovery of survival craft and rescue boats including stowage and securing;

(xiv) hazards of exposure and the need for warm clothing;

(xv) best use of the survival craft facilities in order to survive;

(xvi) methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore life-saving apparatus and vessel's line-throwing apparatus;

(xvii) all other functions contained in the muster list and emergency instructions;

(xviii) instructions for emergency repair of the life-saving appliances.

(b) On vessels of less than 45 m in length the competent authority may permit relaxation of the requirements of paragraph (a). However, appropriate safety information should be carried on board.

8.4 Training in emergency procedures

The competent authority should take such measures as it may deem necessary to ensure that crews are adequately trained in their duties in the event of emergencies. Such training should include, as appropriate:

(a) types of emergencies which may occur, such as collisions, fire and foundering;

(b) types of life-saving appliances normally carried on vessels;

(c) need to adhere to the principles of survival;

(d) value of training and drills;

(e) need to be ready for any emergency and to be constantly aware of:

(i) the information in the muster list, in particular:

- each crew member’s specific duties in any emergency;

- each crew member’s own survival station; and

- the signals calling the crew to their survival craft or fire stations;

(ii) location of each crew member's own and spare lifejackets;

(iii) location of fire alarm controls;

(iv) means of escape;

(v) consequences of panic;

(f) actions to be taken in respect to lifting persons from vessels and survival craft by helicopter;

(g) actions to be taken when called to survival craft stations, including:

(i) putting on suitable clothing;

(ii) donning of lifejacket; and

(iii) collecting additional protection such as blankets, time permitting;

(h) actions to be taken when required to abandon ship, such as:

(i) how to board survival craft from vessel and water; and

(ii) how to jump into the sea from a height and reduce the risk of injury when entering the water;

(i) actions to be taken when in the water, such as:

(i) how to survive in circumstances of:

- fire or oil on the water;

- cold conditions; and

- shark-infested waters;

(ii) how to right a capsized survival craft;

(j) actions to be taken when aboard a survival craft, such as:

(i) getting the survival craft quickly clear of the vessel;

(ii) protection against cold or extreme heat;

(iii) using a drogue or sea anchor;

(iv) keeping a look-out;

(v) recovering and caring for survivors;

(vi) facilitating detection by others;

(vii) checking equipment available for use in the survival craft and using it correctly; and

(viii) remaining, so far as possible, in the vicinity;

(k) main dangers to survivors and the general principles of survival, including:

(i) precautions to be taken in cold climates;

(ii) precautions to be taken in tropical climates;

(iii) exposure to sun, wind, rain and sea;

(iv) importance of wearing suitable clothing;

(v) protective measures in survival craft;

(vi) effects of immersion in the water and of hypothermia;

(vii) importance of preserving body fluids;

(viii) protection against seasickness;

(ix) proper use of fresh water and food;

(x) effects of drinking sea-water;

(xi) means available for facilitating detection by others; and

(xii) importance of maintaining morale;

(l) actions to be taken in respect to fire fighting:

(i) the use of fire hoses with different nozzles;

(ii) the use of fire extinguishers;

(iii) knowledge of the location of fire doors; and

(iv) the use of breathing apparatus.

CHAPTER IX[7]
RADIOCOMMUNICATIONS

PART A - GENERAL

9.1 Application and definition

9.1.1 This chapter should apply to new and existing fishing vessels.

9.1.2 No provision in this chapter should prevent the use by any vessel, survival craft or person in distress of any means at its disposal to attract attention, make known its position and obtain help.

9.1.3 Reference is made to Chapter IV, Regulation 2 of the International Convention for the Safety Life at Sea, 1974 (SOLAS) and Regulation IX/2 of the Torremolinos Protocol, definitions of Sea Areas:

> **Area A1**- an area within the radiotelephone coverage of a least one VHF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;[8]
>
> **Area A2** – an area, excluding Sea Area A1, defined above, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;[9]
>
> **Area A3** – an area, excluding Sea Area A1 and A2, defined above, within the coverage of an Inmarsat geostationary satellite in which continuous alerting is available;[10]
>
> **Area A4** – an area outside of Sea Areas A1, A2, and A3, as defined above;[11]

9.2 Exemptions

9.2.1 It is highly desirable not to deviate from the requirements of this chapter; nevertheless the competent authority may grant partial or conditional exemptions to individual vessels from the requirements of 9.5 to 9.9 provided:

.1 such vessels comply with the functional requirements of 9.3; and

.2 the competent authority has taken into account the effect such exemption may have upon the general efficiency of the service for the safety of all ships and vessels.

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[7] The existing chapter IX is replaced by this revised draft text.
[8] Note of clarification: Area A1 is defined as within range of VHF coast stations with continuous DSC alerting available, approximately 20-30 miles;
[9] Note of clarification: beyond area A1, but within range of MF coastal stations with continuous DSC alerting available, approximately 100 miles;
[10] Note of clarification: beyond the first two areas, but within coverage of geostationary maritime communication satellites [in practice this means INMARSAT]; this covers the area between roughly 70 deg N and 70 deg S;
[11] Note of clarification: the remaining sea areas. The most important of these is the sea around the North Pole [the area around the South Pole is mostly land]; geostationary satellites, which are positioned above the equator, cannot reach this far.

9.2.2 An exemption may be permitted under paragraph 9.2.1 only:

.1 if the conditions affecting safety are such as to render the full application of 9.5 to 9.9 unreasonable or unnecessary; or

.2 in exceptional circumstances, for a single voyage outside the sea area or sea areas for which the vessel is equipped.

9.2.3 The competent authority may exempt vessels operating always together in pair or in groups from being fully equipped in accordance with the requirements provided that:

.1 The vessel in command fully comply with the requirements of the actual Sea area:

.2 The other vessels in pair or in groups carry radio equipment sufficient for short distance distress alert and radiocommunications with the vessel in command, to the satisfaction of the competent authority. Vessels “operating in a pair or group” is defined as two or more vessels operating collaboratively within a 100 nautical miles of each other except for extremely brief periods;

.3 This exemption does not apply to EPIRB carriage requirements.

9.3 Functional requirements

Every vessel, while at sea, should be capable:

.1 except as provided in 9.6.1.1 and 9.8.1.4.3, of transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;

.2 of receiving shore-to-ship distress alerts;

.3 of transmitting and receiving ship-to-ship distress alerts;

.4 of transmitting and receiving search and rescue co-ordinating communications;

.5 of transmitting and receiving on-scene communications;

.6 of transmitting and, as required by regulation X/3(6) of the Protocol, receiving signals for locating;

.7 of transmitting and receiving maritime safety information;

.8 of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks subject to 9.13.7; and

.9 of transmitting and receiving bridge-to-bridge communications.

PART B - SHIP REQUIREMENTS

9.4 Radio installations

9.4.1 Every vessel should be provided with radio installations capable of complying with the functional requirements prescribed by 9.3 throughout its intended voyage and, unless relaxed under 9.2, complying with the requirements of 9.5 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either 9.5, 9.6, 9.7, or 9.8.

9.4.2 Every radio installation should:

.1 be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;

.2 be so located as to ensure the greatest possible degree of safety and operational availability,

.3 be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;

.4 be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and

.5 be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation. This includes the Maritime Mobile Service Identifier (MMSI).

9.4.3 Control of the VHF radiotelephone channels, required for navigational safety, should be immediately available on the navigation bridge convenient to the conning position and, where necessary, facilities should be available to permit radiocommunications from the wings of the navigation bridge. Portable VHF equipment may be used to meet the latter provision.

9.5 Radio equipment - General

9.5.1 Every vessel should be provided with:

.1 a VHF radio installation capable of transmitting and receiving:

.1 DSC on the frequency 156.525 MHz (channel 70). It should be possible to initiate the transmission of distress alerts on channel 70 from the position from which the vessel is normally navigated; and

.2 radiotelephone on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);

.2 a VHF DSC watch receiver which may be separate from, or combined with, that required by 9.5.1.1.1;

.3 a radar transponder capable of operating in the 9 GHz band, which:

.1 should be so stowed that it can be easily utilised; and

.2 may be one of those required by [7.14] for a survival craft;

.4 a receiver capable of receiving international NAVTEX service broadcasts if the ship is engaged on voyages in any area in which an international NAVTEX service is provided. However, if a NAVTEX service is not established in the actual area the competent authority may permit vessels to receive navigational warnings and safety messages by other means of reception, to the satisfaction of the competent authority.

.5 a radio facility for reception of maritime safety information by the Inmarsat enhanced group calling system if the vessel is engaged on voyages in any area of Inmarsat coverage but in which a NAVTEX or an alternative service is not provided. However, vessels engaged exclusively on voyages in areas where an HF direct-printing telegraphy maritime safety information service is provided and fitted with equipment capable of receiving such service, may be exempted from this requirement;

.6 a satellite emergency position-indicating radio beacon (satellite EPIRB) which should be:

.1 capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 MHz band or, if the vessel is engaged only on voyages within Inmarsat coverage, through the Inmarsat geostationary satellite service operating in the 1.6 GHz band;

.2 installed in an easily accessible position;

.3 ready to be manually released and capable of being carried by one person into a survival craft;

.4 capable of floating free if the vessel sinks and of being automatically activated when afloat; and

.5 capable of being activated manually.

9.6 Radio equipment - Sea Area A1 or Sea Areas within the coverage of a VHF coast station (without DSC) operating on a 24 hours a day, 7 days a week basis

9.6.1 In addition to meeting the requirements of 9.5, every vessel engaged on voyages exclusively in sea area A1 should be provided with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the vessel is normally navigated, operating either:

.1 on VHF using DSC; this requirement may be fulfilled by the EPIRB prescribed by 9.5.1.6, either by installing the EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.3 if the vessel is engaged on voyages within coverage of MF coast stations equipped with DSC, on MF using DSC; or

.4 on HF using DSC; or

.5 through the Inmarsat geostationary satellite service; this requirement may be fulfilled by:

.1 an Inmarsat ship earth station; or

.2 the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

9.6.2 The VHF radio installation, required by 9.5.1.1, should also be capable of transmitting and receiving general radiocommunications using radiotelephony.

9.6.3 Vessels engaged on voyages exclusively in sea area A1 may carry, in lieu of the satellite EPIRB required by 9.5.1.6, an EPIRB which should be:

.1 capable of transmitting a distress alert using DSC on VHF channel 70 and providing for locating by means of a radar transponder operating in the 9 GHz band;

.2 installed in an easily accessible position;

.3 ready to be manually released and capable of being carried by one person into a survival craft;

.4 capable of floating free if the vessel sinks and being automatically activated when afloat; and

.5 capable of being activated manually.

9.6.4 If the vessel is operating exclusively within the radiotelephone coverage of at least one continuously operating VHF coast station in which continuous DSC alerting is not available, the vessel need not to be equipped with the DSC functions mentioned above in paragraph 9.5.1.1, 9.5.1.2, 9.6.1.1 to 9.6.1.4.

9.7 Radio equipment - Sea Areas A1 and A2 or Sea Areas within the coverage of a MF coast station (without DSC) providing a continuous watch on 2182 kHz as well as a continuously operating VHF station.

9.7.1 In addition to meeting the requirements of 9.5 and 9.6, every vessel engaged on voyages beyond sea area A1, but remaining within sea area A2, should be provided with:

.1 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

.1 2,187.5 kHz using DSC; and

.2 2,182 kHz using radiotelephony;

.2 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with, that required by 9.7.1.1; and

.3 means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either:

.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 on HF using DSC; or

.3 through the Inmarsat geostationary satellite service; this requirement may be fulfilled by an Inmarsat ship earth station, or by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

9.7.2 It should be possible to initiate transmission of distress alerts by the radio installations specified in 9.7.1.1 and 9.7.1.3 from the position from which the vessel is normally navigated.

9.7.3 The vessel should, in addition, be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either:

.1 a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 9.7.1.1; or

.2 an Inmarsat ship earth station.

9.7.4 If the vessel is operating exclusively within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is not available, but is providing a continuous watch on 2182 kHz, the vessel need not to be equipped with the DSC functions mentioned above in paragraph 9.5.1.1, 9.5.1.2, 9.7.1.1 to 9.7.1.3.

9.8 Radio equipment - Sea Area A1, A2 and A3

9.8.1 In addition to meeting the requirements of 9.5, 9.6, and 9.7, every vessel engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, should, if it does not comply with the requirements of 9.8.2, be provided with:

.1 an Inmarsat ship earth station capable of:

.1 transmitting and receiving distress and safety communications using either radiotelephony or direct-printing telegraphy;

.2 initiating and receiving distress priority calls;

.3 maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;

.4 transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; and

.2 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

.1 2,187.5 kHz using DSC; and

.2 2,182 kHz using radiotelephony, and

.3 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with that required by 9.8.1.2.1; and

.4 means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either:

.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 on HF using DSC; or

.3 through the Inmarsat geostationary satellite service, by an additional ship earth station or by the satellite EPIRB required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

9.8.2 In addition to meeting the requirements of 9.5, 9.6, and 9.7, every vessel engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, should, if it does not comply with the requirements of 9.8.1, be provided with:

.1 an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,609 kHz and 4,000 kHz and between 4,000 kHz and 27,900 kHz:

.1 using DSC;

.2 using radiotelephony; and

.3 using direct-printing telegraphy;

.2 equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz and on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz; at any time, it should be possible to select any of these DSC distress and safety frequencies. This equipment may be separate from, or combined with, the equipment required by 9.8.2.1; and

.3 means of initiating the transmission of ship-to-shore distress alerts by a radiocommunication service other than HF operating either:

.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 through the Inmarsat geostationary satellite service; this requirement may be fulfilled by an Inmarsat ship earth station or the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; and

.4 in addition, vessels should be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by an MF/HF radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 9.8.2.1.

9.8.3 It should be possible to initiate transmission of distress alerts by the radio installations specified in 9.8.1.1, 9.8.1.2, 9.8.1.4, 9.8.2.1 and 9.8.2.3 from the position from which the vessel is normally navigated.

9.9 Additional Note on Relaxation - Sea area A3

9.9.1 Notwithstanding the provisions of 9.5, the competent authority may permit exemption of the provision of 9.5.1.1. and 9.5.1.2 *in areas where such shore-based services are not available.*[12]

9.10 Watches

9.10.1 Every vessel, while at sea, should maintain either a continuous watch:

.1 on VHF DSC channel 70, if the vessel, in accordance with the requirements of 9.5.1.2, is fitted with a VHF radio installation;

.2 on the distress and safety DSC frequency 2,187.5 kHz, if the vessel, in accordance with the requirements of 9.7.1.2 or 9.8.1.3, is fitted with an MF radio installation;

.3 on the distress and safety DSC frequencies 2,187.5 kHz and 8,414.5 kHz and also on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz, appropriate to the time of day and the geographical position of the vessel, if the vessel, in accordance with the requirements of 9.8.2.2, is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver;

[12] Clarification that VHF with DSC should be recommended/required if the vessel is operating within the coverage of a coast station with such services.

.4 for satellite shore-to-ship distress alerts, if the vessel, in accordance with the requirements of 9.8.1.1, is fitted with an Inmarsat ship earth station; or

9.10.2 Every vessel, while at sea, should maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the vessel is navigating.

9.11 Sources of energy

9.11.1 There should be available at all times, while the vessel is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

9.11.2 A reserve source or sources of energy should be provided on every vessel, to the satisfaction of the competent authority, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the vessel's main and emergency source of electrical power. The reserve source of energy should be capable of simultaneously operating:

.1 the VHF radio installation in Sea Area A1;

.2 the VHF radio installation and the MF or MF/HF installation in Sea Area A2;

.3 the VHF radio installation and the MF or MF/HF installation or the Inmarsat station in Sea Area A3;

.4 for a period of at least 3 h.

The reserve source of energy need not supply independent HF and MF radio installation at the same time.

9.11.3 The reserve source or sources of energy should be independent of the propelling power of the vessel and the vessel's electrical system.

9.11.4 The reserve source or sources of energy may be used to supply the electrical lighting required by 9.4.2.4.

9.11.5 Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

.1 a means of automatically charging such batteries should be provided which should be capable of recharging them to minimum capacity requirements within 10 hours; and

.2 the capacity of the battery or batteries should be checked using an appropriate method, at intervals not exceeding 12 months.

9.12 Performance standards

All equipment to which this chapter applies should be of a type approved by the competent authority. Such equipment, except for the domestic radio installation and its ancillary equipment, should conform to appropriate performance standards approved by the competent authority having regard to those adopted by the Organization.

9.13 Maintenance requirements

9.13.1 Equipment should be so designed that the main units can be replaced readily, without elaborate re-calibration or readjustment.

9.13.2 Where applicable, equipment should be so constructed and installed that it is readily accessible for inspection and onboard maintenance purposes.

9.13.3 Adequate information should be provided to enable the equipment to be properly operated and maintained taking into account the recommendations of the Organization.

9.13.4 Adequate tools and spares should be provided to enable the equipment to be maintained.

9.13.5 The competent authority should ensure that radio equipment required by this chapter is maintained to provide the availability of the functional requirements specified in 9.3 and to meet the recommended performance standards of such equipment.

9.13.6 On vessels engaged on voyages in sea area A3, the availability should be ensured by using such methods as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, or a combination of these, as may be approved by the competent authority.

9.13.7 While all reasonable steps should be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in 9.3, malfunction of the equipment for providing the general radiocommunications required by 9.3.8 should not be considered as making a vessel unseaworthy or as a reason for delaying the vessel in ports where repair facilities are not readily available, provided the vessel is capable of performing all distress and safety functions.

9.14 Radio personnel

Every vessel should carry personnel qualified for distress and safety radiocommunications purposes to the satisfaction of the competent authority any one of whom should be designated to have primary responsibility for radiocommunications during distress incidents. The personnel should be holders of certificates specified in the Radio Regulation as appropriate. Alternatively, national certificates based on the same requirements as the Radio Regulation, but taking account of particular local circumstances, may be issued.

9.15 Radio records

A record should be kept, to the satisfaction of the competent authority and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

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ANNEX 2

DRAFT TEXT OF THE REVISED FAO/ILO/IMO VOLUNTARY GUIDELINES FOR THE DESIGN, CONSTRUCTION AND EQUIPMENT OF SMALL FISHING VESSELS

CHAPTER 1
GENERAL PROVISIONS

1.1 Purpose and scope

1.1.1 The purpose of these guidelines is to provide information on design, construction and equipment of small fishing vessels with a view to promoting the safety of the vessel and safety and health of the crew. They are not intended as a substitute for national laws and regulations but may serve as a guide to those concerned with framing such national laws and regulations. Each competent authority responsible for the safety of fishing vessels should ensure that the provisions of these guidelines are adapted to its specific requirements, having due regard to the size and type of vessels, their intended service and area of operation.

1.1.2 Unless otherwise stated, the provisions of these guidelines are intended to apply to new decked fishing vessels of 12 m in length and over, but less than 24 m in length. Nevertheless, even where not otherwise stated, the competent authority should as far as reasonable and practical give consideration to the application of these provisions to existing decked fishing vessels.

1.1.3 The provisions of these Voluntary Guidelines do not apply to fishing vessels for sport or recreation or to processing vessels.

1.2 Definitions

1.2.1 For the purpose of these guidelines unless expressly provided otherwise the following definitions apply:

.1 "Fishing vessel" - in the following referred to as vessel - means any vessel used commercially for catching fish, whales, seals, walrus or other living resources of the sea;

.2 "Decked vessel" is a vessel having a fixed structural deck covering the entire hull above the deepest operating waterline. Where open wells or cockpits are fitted in this deck the vessel is considered a decked vessel if flooding of the well or cockpit will not endanger the vessel;

.3 "Crew" means the skipper and all persons employed or engaged in any capacity on board a vessel on the business of that vessel;

.4 "Competent authority" is the government of the State whose flag the vessel is entitled to fly;

.5 "New vessel" is a vessel the keel of which is laid, or which is at a similar stage of construction, on or after the date of adoption of the present revision of these guidelines;

.6 "Protocol" means the Torremolinos International Convention for the Safety of Fishing Vessels, 1977, as modified by the Torremolinos Protocol of 1993 relating thereto;

.7 "Length (L)"* should be taken as 96% of the total length on a waterline at 85% of the least depth, or as the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that length is greater. In vessels designed with rake of keel the waterline on which this length is measured should be parallel to the designed waterline;

.8 "Forward and after perpendiculars" should be taken at the forward and after ends of the length (L). The forward perpendicular should be coincident with the foreside of the stem on the waterline on which the length is measured;[13]

.9 "Breadth (B)"* is the maximum breadth of the vessel, measured amidships to the moulded line of the frame in a vessel with a metal shell and to the outer surface of the hull in a vessel with a shell of any other material;

.10 "Least depth (D)"* is the depth measured from the keel line to the top of the working deck beam at side. Where the working deck is stepped and the raised part of the deck extends over the point at which the least depth is to be determined, the least depth should be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part;

.11 "Freeboard (*f*) " is the actual minimum freeboard and is the distance from the underside of the working deck at the side to a water-line, measured perpendicularly to the water-line, plus the minimum thickness of decking. When the working deck is stepped, the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is to be taken as the working deck**.

.12 "Deepest operating waterline" is the waterline related to the maximum permissible operating draft;

.13 "Amidships" means the mid-length of L;

.14 "Midship section" is that section of the hull defined by the intersection of the moulded surface of the hull with a vertical plane perpendicular to the waterline and centreline plane passing through amidships[14];

.15 "Keel line" is the line parallel to the slope of keel passing amidships through:

(a) the top of the keel or line of intersection of the inside of shell plating with the keel where a bar keel extends above that line of a vessel with a metal shell; or

(b) the rabbet lower line of the keel of a vessel with a shell of wood or a composite material; or

(c) the intersection of a fair extension of the outside of the shell contour at the bottom with the centreline of a vessel with a shell of material other than wood and metal;[15]

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* Dimensions are illustrated in the Annex and when using length, breadth, depth or other dimensions for the purpose of stability examination in accordance with the guidance given in Chapter IV of Part B of the Code of Safety for Fishermen and Fishing Vessels, the definitions in that part apply.

[13] Drawn from the Protocol I.2.(6)

** Drawn from paragraph 1.2.1 (xix) of the existing Code.

[14] Drawn from the Protocol I.2.(12)

[15] Drawn from the Protocol I.2.(13)

.16 "Baseline" is the horizontal line intersecting at amidships the keel line;[16]

.17 "Working deck" is generally the lowest complete deck above the deepest operating waterline from which fishing is undertaken. In vessels fitted with two or more complete decks, the competent authority may accept a lower deck as a working deck provided that that deck is situated above the deepest operating waterline;

.18 "Deck erection" is any decked structure on the working deck;

.19 "Enclosed superstructure" is a superstructure with:

.1 enclosing bulkheads of efficient construction;

.2 access openings, if any, in those bulkheads fitted with permanently attached weathertight doors of a strength equivalent to the unpierced structure which can be operated from each side; and

.3 other openings in sides or ends of the superstructure fitted with efficient weathertight means of closing.

A raised quarter-deck is regarded as a superstructure.

A bridge or poop should not be regarded as enclosed unless access is provided for the crew to reach machinery and other working spaces inside those superstructures by alternative means which are available at all times when bulkhead openings are closed;

.20 "Superstructure deck" is that complete or partial deck forming the top of a deck erection situated at a height of not less than 1.8 m above the working deck. Where this height is less than 1.8 m, the top of such deck erections should be treated in the same way as the working deck;

.21 "Height of a superstructure or other erection" is the least vertical distance measured at side from the top of the deck beams of a superstructure or an erection to the top of the working deck beams;

.22 "Weathertight" means that in any sea conditions water will not penetrate into the vessel;

.23 "Watertight" means capable of preventing the passage of water through the structure in any direction under a head of water for which the surrounding structure is designed;

.24 "Collision bulkhead" is a watertight bulkhead up to the working deck in the fore part of the vessel as approved by the competent authority[17]; and

.25 "Bow height" is defined as the vertical distance at the forward perpendicular between the waterline corresponding to the maximum permissible draught and the designed trim and the top of the exposed deck at side.

[16] Drawn from the Protocol I.2.(14)
[17] Drawn from the Protocol I.2.(22)

.26 "Organization" means the International Maritime Organization*; and

.27 "Approved" means approved by the competent authority.

1.3 Maintenance, upkeep and surveys

1.3.1 The hull, machinery, equipment and radio installations as well as crew accommodation of every vessel should be constructed and installed so as to be capable of being regularly maintained to ensure that they are at all times, in all respects, satisfactory for the vessel's intended service.

1.3.2 Where practicable, the competent authority should arrange for appropriate surveys of a vessel during construction and, at regular intervals after completion, to ensure satisfactory condition of the vessel's hull, machinery, equipment, radio installations equipment and radio installations as well as crew accommodation. An appropriate report of the survey should be entered in the record of the vessel.

1.3.3 After any survey has been completed no change should be made in the structural arrangements, machinery, equipment, and radio installations as well as crew accommodation etc., covered by the survey, without the approval of the competent authority.

1.3.4 Documentation relating to the safety of the vessel should cease to be valid upon transfer of the vessel to the flag of another State. New safety documentation should only be issued when the competent authority is fully satisfied that the vessel is in compliance with the requirements of the relevant provisions.

1.4 Equivalents

Where the present provisions require that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a vessel, or that any particular provision shall be made, the competent authority may allow any other fitting, material, appliance or apparatus, or type thereof, to be fitted or carried, or any other provision to be made in that vessel, if it is satisfied by trial thereof or otherwise that such fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by the present provisions.**

* Drawn from Article 2 of the 1993 Torremolinos Protocol
** Drawn from the text of regulation I/4(1) of the Torremolinos Protocol

CHAPTER 8[18]
EMERGENCY PROCEDURES, MUSTERS AND DRILLS

8.1 General emergency alarm system, muster list and emergency instructions

8.1.1 The general emergency alarm system should be capable of sounding the general alarm signal consisting of seven or more short blasts followed by one long blast on the vessel's whistle or siren and additionally on an electrically operated bell or klaxon or other equivalent warning system which should be powered from the vessel's main supply and the emergency source of electrical power required by section [4.12]. As an alternative, an appropriate manual system should be used on vessels of a length less than 17 m.

8.1.2 All vessels should be provided with clear instructions for each crew member which should be followed in case of emergency.

8.1.3 The muster list should be posted up in several parts of the vessel and, in particular, in the wheelhouse, the engine room and in the crew accommodation and should include the information specified in the following paragraphs.

8.1.4 The muster list should specify details of the general alarm signal prescribed by 8.1.1 and also the action to be taken by the crew when this alarm is sounded. The muster list should also specify how the order to abandon ship will be given.

8.1.5 The muster list should show the duties assigned to the different members of the crew including:

(a) closing of watertight doors, fire doors, valves, scuppers, overboard shoots, sidescuttles, skylights, portholes and other similar openings in the vessel;

(b) equipping the survival craft and other life-saving appliances;

(c) preparation and launching of survival craft;

(d) general preparation of other life-saving appliances;

(e) use of communication equipment; and

(f) manning of fire parties assigned to deal with fires.

8.1.6 The competent authority may permit relaxation of the requirements of 8.1.5 if satisfied that, due to the small number of crew members, no muster list is necessary.

8.1.7 The muster list should specify which of the crew members are assigned to ensure that the life-saving and fire appliances are maintained in good condition and are ready for immediate use.

8.1.8 The muster list should specify substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.

8.1.9 The muster list should be prepared before the vessel proceeds to sea. After the muster list has been prepared, if any change takes place in the crew which necessitates an alteration in the muster list, the skipper should either revise the list or prepare a new list.

[18] Please refer to Chapter VIII of the Protocol.

8.2 Abandon ship training and drills

8.2.1 Practice musters and drills

(a) Each member of the crew should participate in at least one abandon ship drill and one fire drill every month. However, the competent authority may modify this requirement, provided that at least one abandon ship and one fire drill is held at least every three months. The drills of the crew should take place within 24 hours of the vessel leaving a port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular vessel in the previous muster. The competent authority may accept other arrangements that are at least equivalent for those classes of vessel for which this is impracticable.

(b) The provisions of regulation VIII/3(1), paragraphs (b) to (j) of the Protocol may be used as guidance when determining how to practice musters and drills.

8.2.2 On-board training and instructions

(a) On-board training in the use of the vessel's life-saving appliances, including survival craft equipment, should be given as soon as possible but not later than 2 weeks after a crew member joins the vessel. However, if the crew member is on a regularly scheduled rotating assignment to the vessel, such training should be given not later than 2 weeks after the time of first joining the vessel.

(b) Instructions in the use of the vessel's life-saving appliances and in survival at sea should be given at the same intervals as the drills. Individual instruction may cover different parts of the vessel's life-saving system, but all the vessel's life-saving equipment and appliances should be covered within any period of 2 months. Each member of the crew should be given instructions which should include but not necessarily be limited to:

(i) operation and use of the vessel's inflatable liferafts, including precautions concerning nailed shoes and other sharp objects;

(ii) problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures;

(iii) special instructions necessary for use of the vessel's life-saving appliances in severe weather and severe sea conditions.

8.2.3 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 should be recorded, to the satisfaction of the competent authority, in a logbook.

8.2.4 Training manual

A training manual should be provided. The training manual, which may comprise several volumes, should contain instructions and information, in easily understood terms illustrated wherever possible, on the life-saving appliances provided in the vessel and on the best methods of survival. Any part of such information may be provided in the form of audio-visual aids in lieu of the manual. The provisions of regulation VIII/3(4) of the Protocol may be used as guidance when determining the content of the training manual.

8.3 Training in emergency procedures

Crews should be adequately trained, to the satisfaction of the competent authority, in their duties in the event of emergencies. The provisions of regulation VIII/4 of the Protocol and the joint IMO/ILO/FAO document for guidance on fishermen's training and certification, as amended, may be used as guidance when determining items to be included in such training.

CHAPTER 9[19]
RADIOCOMMUNICATIONS

PART A - GENERAL

9.1 Application and definition

9.1.1 This chapter should apply to new and existing fishing vessels.

9.1.2 No provision in this chapter should prevent the use by any vessel, survival craft or person in distress of any means at its disposal to attract attention, make known its position and obtain help.

9.1.3 Reference is made to Chapter IV, Regulation 2 of the International Convention for the Safety Life at Sea, 1974 (SOLAS) and Regulation IX/2 of the Torremolinos Protocol, definitions of Sea Areas:

> **Area A1**- an area within the radiotelephone coverage of a least one VHF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;[20]
>
> **Area A2** – an area, excluding Sea Area A1, defined above, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government;[21]
>
> **Area A3** – an area, excluding Sea Area A1 and A2, defined above, within the coverage of an Inmarsat geostationary satellite in which continuous alerting is available;[22]
>
> **Area A4** – an area outside of Sea Areas A1, A2, and A3, as defined above;[23]

[19] The existing chapter 8 is replaced by this revised draft text.
[20] Note of clarification: Area A1 is defined as within range of VHF coast stations with continuous DSC alerting available, approximately 20-30 miles;
[21] Note of clarification: beyond area A1, but within range of MF coastal stations with continuous DSC alerting available, approximately 100 miles;
[22] Note of clarification: beyond the first two areas, but within coverage of geostationary maritime communication satellites [in practice this means INMARSAT]; this covers the area between roughly 70 deg N and 70 deg S;
[23] Note of clarification: the remaining sea areas. The most important of these is the sea around the North Pole [the area around the South Pole is mostly land]; geostationary satellites, which are positioned above the equator, cannot reach this far.

9.2 Exemptions

9.2.1 It is highly desirable not to deviate from the requirements of this chapter; nevertheless the competent authority may grant partial or conditional exemptions to individual vessels from the requirements of 9.5 to 9.9 provided:

.1 such vessels comply with the functional requirements of 9.3; and

.2 the competent authority has taken into account the effect such exemption may have upon the general efficiency of the service for the safety of all vessels and vessels.

9.2.2 An exemption may be permitted under paragraph 9.2.1 only:

.1 if the conditions affecting safety are such as to render the full application of 9.5 to 9.9 unreasonable or unnecessary; or

.2 in exceptional circumstances, for a single voyage outside the sea area or sea areas for which the vessel is equipped.

9.2.3 The competent authority may exempt vessels operating always together in pair or in groups from being fully equipped in accordance with the requirements provided that:

.1 The vessel in command fully comply with the requirements of the actual Sea area:

.2 The other vessels in pair or in groups carry radio equipment sufficient for short distance distress alert and radiocommunications with the vessel in command, to the satisfaction of the competent authority. Vessels “operating in a pair or group” is defined as two or more vessels operating collaboratively within a 100 nautical miles of each other except for extremely brief periods;

.3 This exemption does not apply to EPIRB carriage requirements.

9.3 Functional requirements

Every vessel, while at sea, should be capable:

.1 except as provided in 9.6.1.1 and 9.8.1.4.3, of transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;

.2 of receiving shore-to-ship distress alerts;

.3 of transmitting and receiving ship-to-ship distress alerts;

.4 of transmitting and receiving search and rescue co-ordinating communications;

.5 of transmitting and receiving on-scene communications;

.6 of transmitting and, as required by regulation X/3(6) of the Protocol, receiving signals for locating;

.7 of transmitting and receiving maritime safety information;

.8 of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks subject to 9.13.7; and

.9 of transmitting and receiving bridge-to-bridge communications.

PART B - VESSEL REQUIREMENTS

9.4 Radio installations

9.4.1 Every vessel should be provided with radio installations capable of complying with the functional requirements prescribed by 9.3 throughout its intended voyage and, unless relaxed under 9.2, complying with the requirements of 9.5 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either 9.5, 9.6, 9.7, or 9.8.

9.4.2 Every radio installation should:

.1 be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;

.2 be so located as to ensure the greatest possible degree of safety and operational availability,

.3 be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;

.4 be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and

.5 be clearly marked with the call sign, the vessel station identity and other codes as applicable for the use of the radio installation. This includes the Maritime Mobile Service Identifier (MMSI).

9.4.3 Control of the VHF radiotelephone channels, required for navigational safety, should be immediately available on the navigation bridge convenient to the conning position and, where necessary, facilities should be available to permit radiocommunications from the wings of the navigation bridge. Portable VHF equipment may be used to meet the latter provision.

9.5 Radio equipment - General

9.5.1 Every vessel should be provided with:

.1 a VHF radio installation capable of transmitting and receiving:

.1 DSC on the frequency 156.525 MHz (channel 70). It should be possible to initiate the transmission of distress alerts on channel 70 from the position from which the vessel is normally navigated; and

.2 radiotelephone on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);

.2 a VHF DSC watch receiver which may be separate from, or combined with, that required by 9.5.1.1.1;

.3 a radar transponder capable of operating in the 9 GHz band, which:

.1 should be so stowed that it can be easily utilised; and

.2 may be one of those required by [7.14] for a survival craft;

.4 a receiver capable of receiving international NAVTEX service broadcasts if the vessel is engaged on voyages in any area in which an international NAVTEX service is provided. However, if a NAVTEX service is not established in the actual area the competent authority may permit vessels to receive navigational warnings and safety messages by other means of reception, to the satisfaction of the competent authority.

.5 a radio facility for reception of maritime safety information by the Inmarsat enhanced group calling system if the vessel is engaged on voyages in any area of Inmarsat coverage but in which a NAVTEX or an alternative service is not provided. However, vessels engaged exclusively on voyages in areas where an HF direct-printing telegraphy maritime safety information service is provided and fitted with equipment capable of receiving such service, may be exempted from this requirement;

.6 a satellite emergency position-indicating radio beacon (satellite EPIRB) which should be:

.1 capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 MHz band or, if the vessel is engaged only on voyages within Inmarsat coverage, through the Inmarsat geostationary satellite service operating in the 1.6 GHz band;

.2 installed in an easily accessible position;

.3 ready to be manually released and capable of being carried by one person into a survival craft;

.4 capable of floating free if the vessel sinks and of being automatically activated when afloat; and

.5 capable of being activated manually.

9.6 Radio equipment - Sea Area A1 or Sea Areas within the coverage of a VHF coast station (without DSC) operating on a 24 hours a day, 7 days a week basis

9.6.1 In addition to meeting the requirements of 9.5, every vessel engaged on voyages exclusively in sea area A1 should be provided with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the vessel is normally navigated, operating either:

.1 on VHF using DSC; this requirement may be fulfilled by the EPIRB prescribed by 9.5.1.6, either by installing the EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.3 if the vessel is engaged on voyages within coverage of MF coast stations equipped with DSC, on MF using DSC; or

.4 on HF using DSC; or

.5 through the Inmarsat geostationary satellite service; this requirement may be fulfilled by:

.1 an Inmarsat ship earth station; or

.2 the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

9.6.2 The VHF radio installation, required by 9.5.1.1, should also be capable of transmitting and receiving general radiocommunications using radiotelephony.

9.6.3 Vessels engaged on voyages exclusively in sea area A1 may carry, in lieu of the satellite EPIRB required by 9.5.1.6, an EPIRB which should be:

.1 capable of transmitting a distress alert using DSC on VHF channel 70 and providing for locating by means of a radar transponder operating in the 9 GHz band;

.2 installed in an easily accessible position;

.3 ready to be manually released and capable of being carried by one person into a survival craft;

.4 capable of floating free if the vessel sinks and being automatically activated when afloat; and

.5 capable of being activated manually.

9.6.4 If the vessel is operating exclusively within the radiotelephone coverage of at least one continuously operating VHF coast station in which continuous DSC alerting is not available, the vessel need not to be equipped with the DSC functions mentioned above in paragraph 9.5.1.1, 9.5.1.2, 9.6.1.1 to 9.6.1.4.

9.7 Radio equipment - Sea Areas A1 and A2 or Sea Areas within the coverage of a MF coast station (without DSC) providing a continuous watch on 2182 kHz as well as a continuously operating VHF station

9.7.1 In addition to meeting the requirements of 9.5 and 9.6, every vessel engaged on voyages beyond sea area A1, but remaining within sea area A2, should be provided with:

.1 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

.1 2,187.5 kHz using DSC; and

.2 2,182 kHz using radiotelephony;

.2 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with, that required by 9.7.1.1; and

.3 means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either:

.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 on HF using DSC; or

.3 through the Inmarsat geostationary satellite service; this requirement may be fulfilled by an Inmarsat ship earth station, or by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

9.7.2 It should be possible to initiate transmission of distress alerts by the radio installations specified in 9.7.1.1 and 9.7.1.3 from the position from which the vessel is normally navigated.

9.7.3 The vessel should, in addition, be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either:

.1 a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 9.7.1.1; or

.2 an Inmarsat ship earth station.

9.7.4 If the vessel is operating exclusively within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is not available, but is providing a continuous watch on 2182 kHz, the vessel need not to be equipped with the DSC functions mentioned above in paragraph 9.5.1.1, 9.5.1.2, 9.7.1.1 to 9.7.1.3.

9.8 Radio equipment - Sea Area A1, A2 and A3

9.8.1 In addition to meeting the requirements of 9.5, 9.6, and 9.7, every vessel engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, should, if it does not comply with the requirements of 9.8.2, be provided with:

.1 an Inmarsat ship earth station capable of:

.1 transmitting and receiving distress and safety communications using either radiotelephony or direct-printing telegraphy;

.2 initiating and receiving distress priority calls;

.3 maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;

.4 transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; and

.2 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

.1 2,187.5 kHz using DSC; and

.2 2,182 kHz using radiotelephony, and

.3 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with that required by 9.8.1.2.1; and

.4 means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either:

.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 on HF using DSC; or

.3 through the Inmarsat geostationary satellite service, by an additional ship earth station or by the satellite EPIRB required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

9.8.2 In addition to meeting the requirements of 9.5, 9.6, and 9.7, every vessel engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, should, if it does not comply with the requirements of 9.8.1, be provided with:

.1 an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,609 kHz and 4,000 kHz and between 4,000 kHz and 27,900 kHz:

.1 using DSC;

.2 using radiotelephony; and

.3 using direct-printing telegraphy;

.2 equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz and on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz; at any time, it should be possible to select any of these DSC distress and safety frequencies. This equipment may be separate from, or combined with, the equipment required by 9.8.2.1; and

.3 means of initiating the transmission of ship-to-shore distress alerts by a radiocommunication service other than HF operating either:

.1 through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

.2 through the Inmarsat geostationary satellite service; this requirement may be fulfilled by an Inmarsat ship earth station or the satellite EPIRB, required by 9.5.1.6, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; and

.4 in addition, vessels should be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by an MF/HF radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 9.8.2.1.

9.8.3 It should be possible to initiate transmission of distress alerts by the radio installations specified in 9.8.1.1, 9.8.1.2, 9.8.1.4, 9.8.2.1 and 9.8.2.3 from the position from which the vessel is normally navigated.

9.9 Additional Note on Relaxation - Sea area A3

9.9.1 Notwithstanding the provisions of 9.5, the competent authority may permit exemption of the provision of 9.5.1.1. and 9.5.1.2 in areas where such shore-based services are not available.[24]

9.10 Watches

9.10.1 Every vessel, while at sea, should maintain either a continuous watch:

.1 on VHF DSC channel 70, if the vessel, in accordance with the requirements of 9.5.1.2, is fitted with a VHF radio installation;

.2 on the distress and safety DSC frequency 2,187.5 kHz, if the vessel, in accordance with the requirements of 9.7.1.2 or 9.8.1.3, is fitted with an MF radio installation;

.3 on the distress and safety DSC frequencies 2,187.5 kHz and 8,414.5 kHz and also on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz, appropriate to the time of day and the geographical position of the vessel, if the vessel, in accordance with the requirements of 9.8.2.2, is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver;

.4 for satellite shore-to-ship distress alerts, if the vessel, in accordance with the requirements of 9.8.1.1, is fitted with an Inmarsat ship earth station; or

[24] Clarification that VHF with DSC should be recommended/required if the vessel is operating within the coverage of a coast station with such services.

9.10.2 Every vessel, while at sea, should maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the vessel is navigating.

9.11 Sources of energy

9.11.1 There should be available at all times, while the vessel is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

9.11.2 A reserve source or sources of energy should be provided on every vessel, to the satisfaction of the competent authority, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the vessel's main and emergency source of electrical power. The reserve source of energy should be capable of simultaneously operating:

.1 the VHF radio installation in Sea Area A1;

.2 the VHF radio installation and the MF or MF/HF installation in Sea Area A2;

.3 the VHF radio installation and the MF or MF/HF installation or the Inmarsat station in Sea Area A3;

.4 for a period of at least 3 h.

The reserve source of energy need not supply independent HF and MF radio installation at the same time.

9.11.3 The reserve source or sources of energy should be independent of the propelling power of the vessel and the vessel's electrical system.

9.11.4 The reserve source or sources of energy may be used to supply the electrical lighting required by 9.4.2.4.

9.11.5 Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

.1 a means of automatically charging such batteries should be provided which should be capable of recharging them to minimum capacity requirements within 10 hours; and

.2 the capacity of the battery or batteries should be checked using an appropriate method, at intervals not exceeding 12 months.

9.12 Performance standards

All equipment to which this chapter applies should be of a type approved by the competent authority. Such equipment, except for the domestic radio installation and its ancillary equipment, should conform to appropriate performance standards approved by the competent authority having regard to those adopted by the Organization.

9.13 Maintenance requirements

9.13.1 Equipment should be so designed that the main units can be replaced readily, without elaborate re-calibration or readjustment.

9.13.2 Where applicable, equipment should be so constructed and installed that it is readily accessible for inspection and onboard maintenance purposes.

9.13.3 Adequate information should be provided to enable the equipment to be properly operated and maintained taking into account the recommendations of the Organization.

9.13.4 Adequate tools and spares should be provided to enable the equipment to be maintained.

9.13.5 The competent authority should ensure that radio equipment required by this chapter is maintained to provide the availability of the functional requirements specified in 9.3 and to meet the recommended performance standards of such equipment.

9.13.6 On vessels engaged on voyages in sea area A3, the availability should be ensured by using such methods as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, or a combination of these, as may be approved by the competent authority.

9.13.7 While all reasonable steps should be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in 9.3, malfunction of the equipment for providing the general radiocommunications required by 9.3.8 should not be considered as making a vessel unseaworthy or as a reason for delaying the vessel in ports where repair facilities are not readily available, provided the vessel is capable of performing all distress and safety functions.

9.14 Radio personnel

Every vessel should carry personnel qualified for distress and safety radiocommunications purposes to the satisfaction of the competent authority any one of whom should be designated to have primary responsibility for radiocommunications during distress incidents. The personnel should be holders of certificates specified in the Radio Regulation as appropriate. Alternatively, national certificates based on the same requirements as the Radio Regulation, but taking account of particular local circumstances, may be issued.

9.15 Radio records

A record should be kept, to the satisfaction of the competent authority and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

***

ANNEX 3

ANNEX VI

RECOMMENDED CONTENTS OF FISHING VESSELS' MEDICINE CHEST*

INSTRUCTIONS

Table I presents a minimal scale for fishing vessels for unlimited service (Category 1) and not carrying a doctor. The table is based on a six-month voyage. Double the quantity of medicines and dressings should be carried for voyages extending up to 12 months except where indicated by an X, when the amount should be fixed quantity regardless of the length of the voyage. For instruments, appliances, and general medical equipment the amounts carried should be a fixed quantity regardless of the length of the voyage, unless otherwise indicated.

Table II presents a minimal scale for fishing vessels proceeding to sea up to 200 miles from a place of shelter (Category 2), and for fishing vessels proceeding to sea up to 50 miles from a place of shelter (Category 3) and not carrying a doctor. Items marked (*) need not be carried in Category 3 vessels. For instruments, appliances and general medical equipment the amounts carried should be a fixed quantity regardless of the length of the voyage, unless otherwise indicated.

Formulae for certain medicines are given in the right-hand columns for the information of chemists. Where provided for in the tables the chemist may supply an equivalent drug, ***but the container must carry a special label stating that the item is the equivalent of the standard item*** in the table, so that the captain is left in no doubt about its purpose.

The adult dose of all medicines must be clearly shown on labels, which must be rendered durable by varnishing.

All containers labelled "POISON" must be supplied in distinctive bottles and these, together with other containers labelled "For external use only", must be stored in a special locker. The keys for this locker are retained by the captain, who may issue one key to the officer or other person to whom he delegates responsibility for the sick on board.

* Based on recommended contents of the ship's medicine chest given in the International Medical Guide for Ships, WHO, Geneva, 1967.

THE SHIP'S MEDICINE CHEST

	Item		Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
MEDICINES					
1.	Auristillae glyceris (Glycerine ear drops) EAR DROPS		30 ml	30 ml	Supply in bottle of distinctive design with dropper.
2.	Capsulae amyli nitris (Amyl nitrite capsules)	X	6	6	Each capsule 0.3 ml amyl nitrite, covered with absorbent fabric. To be renewed after 12 months.
3.	Capsulae tetracyclini hydrochloridi (Teracycline hydrochloride capsules) TETRACYCLINE CAPSULES		80	80(*)	Each capsule 250 mg tetracycline hydrochloride, or an equivalent broad-spectrum antibiotic with similar therapeutic effects (to be so labelled).
4.	Compressi acidi acetylsalicylici (Acetylsalicylic acid tablets) ASPIRIN TABLETS		250	200	Each tablet 300 mg acetylsalicylic acid.
5.	Compressi aminophyllini (Aminophylline tablets) AMINOPHYLLINE TABLETS	X	20	20(*)	Each tablet 300 mg aminophylline. Label "POISON – to be used only on medical advice by radio".
6.	Compressi butobarbitali (Butobarbitone tablets) SEDATIVE TABLETS		40	20(*)	Each tablet 100 mg butobarbitone. Supply in bottle of distinctive design. Label "POISON".
7.	Compressi chloroquini Sulfatis (Chloroquine sulfate tablets MALARIA TABLETS	X	300	100(*) (Only for ships operating in malarious areas)	Each tablet 150 mg chloroquine base; chloroquine sulfate 200mg. Chloroquine phosphate 250 mg may be supplied as an alternative.
8.	Compressi chlorothiazidi (Chlorothiazide tablets)	X	20	20(*)	Each tablet 500 mg chlorothiazide. Supply in bottle of distinctive design. Label "POISON – to be used only on medical advice transmitted in plain language and not by code".
9.	Compressi chlorpromazini Hydrochloridi (Chlorpromazine hydrochloride tablets) TRANQUILLIZER TABLETS	X	20	20(*)	Each tablet 50 mg chlorpromazine hydrochloride. Supply in bottle of distinctive design. Label "POISON – to be used only on medical advice by radio".
10.	Compressi codeine phosphates (Codeine phosphate tablets) CODEINE TABLETS		200	100	Each tablet 15 mg codeine phosphate, or an equivalent drug with similar therapeutic effects (to be so labelled).

	Item		Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
MEDICINES (continued)					
11.	Compressi colocynthidis et jalapae co. (Compound colocynth and jalap tablets) VEGETABLE LAXATIVE TABLETS		100	40	Each tablet 60 mg compound colocynth extract/15 mg hyoscyamus dry extract/15 mg jalap resin/15 mg podophyllum resin/0.006 ml peppermint oil. Or an equivalent laxative with similar therapeutic effects (to be so labelled).
12.	Compressi digoxini (Digoxin tablets)	X	20	20	Each tablet 0.25 mg digoxin. Supply in bottle of distinctive design. Label "POISON – to be used only on medical advice transmitted in plain language and not by code".
13.	Compressi ephedrini Hydrochloridi (Ephedrine hydrochloride tablets) EPHEDRINE TABLETS		60	40	Each tablet 30 mg ephedrine hydrochloride.
14.	Compressi glycerylis Trinitratis (Glyceryl trinitrate tablets) HEART TABLETS	X	20	20	Each tablet 0.5 mg glyceryl trinitrate. Supply in bottle of distinctive design. Label "POISON".
15.	Compressi Hyoscini Hydrobromidi (Hyoscine hydrobromide tablets) SEASICKNESS TABLETS		100	50	Each tablet 0.3 mg hyoscine hydrobromide, or an equivalent drug with similar therapeutic effects (to be so labelled). Supply in bottle of distinctive design. Label "POISON".
16.	Compressi kali Permanganates (Potassium permanganate tablets)		50	20	Each tablet 60 mg potassium permanganate. Label "One tablet dissolved in 600 ml of water may be used as an antiseptic lotion or stomach wash".
17.	Compressi magnesii trisilicatis (Magnesium trisilicate tablets) STOMACH TABLETS		250	100	Each tablet 250 mg magnesium trisilicate/120 mg dried aluminium hydroxide gel/0.02 ml peppermint oil.
18.	Compressi natrii chloridi solv. (Sodium chloride tablets) SALT TABLETS	X	1000	500	Each tablet 500 mg sodium chloride, 200 mg dextrose. Double the quantity to be carried in vessels spending long periods in tropical areas.
19.	Compressi phenobarbitali (phenobarbitone tablets) PHENOBARBITONE TABLETS		50	40	Each tablet 30 mg phenobarbitone. Supply in bottle of distinvtive design. Label "POISON".

	Item		Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
MEDICINES (continued)					
20.	Compressi phenoxymethylpenicillini (Phenoxymethylpenicillin tablets) PENICILLIN TABLETS		300	120	Each tablet 125 mg phenoxymethylpenicillin. Store in a cool dry place in container which will prevent access of moisture.
21.	Compressi proguanili Hydrochloridi (Proguanil hydrochloride tablets)		100	100 (Only for ships operating in malarious areas)	Each tablet 100 mg proguanil hydrochloride. For ships proceeding on voyages to malarious areas the quantity is to be increased to 50 tablets per crew member.
22.	Compressi promethazini Hydrochloridi (Promethazine hydrochloride tablets) ANTIHISTAMINE TABLETS		40	40	Each tablet 25 mg promethazine hydrochloride or an equivalent antihistamine with similar therapeutic effects (to be so labelled).
23.	Compressi sulfadimidini (Sulfadimidine tablets) SULFONAMIDE TABLETS		200	100	Each tablet 500 mg sulfadimidine or an equivalent sulfonamide with similar therapeutic effects (to be so labelled). Supply in bottle of distinctive design. Label “POISON”.
24.	Compressi sulfamethoxypyridazini (Sulfamethoxypyridazine tablets) SMP TABLETS	X	300	100	Each tablet 500 mg sulfamethoxy pyridazine. Supply in bottle of distinctive design. Label “POISON”.
25.	Conspersus dicophani (DDT dusting powder) INSECTICIDE POWDER		500 g	250 g(*)	A white powder for application to persons and their clothing; harmless to skin and clothing and designed to destroy human infestation by insects and mites. Instructions for use on the label and insufflator included.
26.	Conspersus zinci, amyli, et talci (Dusting powder of zinc, starch and talc) ZINC DUSTING POWDER		150 g	150 g	A white powder consisting of 25% zinc oxide, 25% starch, and 50% talc (q weight). Label “External use”.
27.	Conspersus zinci undecenoatis (Dusting powder of zinc undecenoate) RINGWORM POWDER		120 g	120 g(*)	A powder consisting of 500 g starch, 100 g zinc undecenoate, 20.8 g undecenoic acid, 4.7 ml pumilio pine oil, and 1000 g light kaolin.

	Item		Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
MEDICINES (continued)					
28.	Dimethylis phthalas (Dimethyl phthalate) INSECT REPELLENT		One bottle per crew member		To be carried on all vessels proceeding to malarious ports. The supply per individual should be considered adequate for seven days. To be increased if the vessel remains longer in a malarious area. 50-ml bottle. Label "External use".
29.	Guttae sulfacetamidi (Sulfacetamide eye drops) ANTISEPTIC EYE DROPS		30 ml	30 ml(*)	A solution of sulfacetamide sodium 10%, for eye drops. Supply in bottle of distinctive design with dropper.
30.	Guttae tetracainaer (Tetracaine eye drops) ANAESTHETIC EYE DROPS	X	30 ml	30 ml	A solution of tetracaine hydrochloride 1% for eye drops. Supply in bottle of distinctive design with dropper. Label "External use – POISON".
31.	Injectio adrenalini (Adrenaline injection) ADRENALINE INJECTION		5	5(*)	Each ampoule 1 mg adrenaline. Supply in "Ampins". Label "To be used only on medical advice, except in case of anaphylactic shock due to penicillin injection".
32.	Injectio benzylpenicillini (Procaine penicillin G injection) PENICILLIN INJECTION		50	25(*)	Each ampoule 600,000 international units of procaine penicillin in a sterile suspension in water or an equivalent antibiotic with similar therapeutic effects (to be so labelled). Store in a cool, dry place an renew when necessary.
33.	Injectio morphini sulfatis (Morphine sulfate injection) MORPHINE INECTION	X	10	5	Each ampoule 15 mg morphine sulfate. Supply in "Ampins". Label "POISON".
34.	Injectio natrii chloridi (Sodium chloride injection) NORMAL SALINE INJECTION		4	4(*)	Each bottle 1000 ml water with 9 g sodium chloride, sterile. Supply administration set and instructions.
35.	Injectio streptomycini sulfatis (Streptomycin sulfate injection) STREPTOMYCIN INJECTION	X	6	6(*)	Each ampoule 1000 mg streptomycin base, as a sterile solution in water. Store in a cool, dry place and renew when necessary.
36.	Injectio tetracyclini hydrochloridi (Tetracycline hydrochloride injection) TETRACYCLINE INJECTION		6	3	Each ampoule 100 mg tetracycline, or an equivalent broad spectrum antibiotic with similar therapeutic effects (to be so labelled).

	Item		Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
MEDICINES (continued)					
37.	Linctus scillae opiates (Linctus of squill, opiate) COUGH LINCTUS		500 ml	250 ml	A mixture in equal volumes of camphorated opium tincture, oxymel of squill, tolu syrup, or an equivalent mixture with similar therapeutic effects (to be so labelled).
38.	Linimentum methylis Salicylatis (Methyl salicylate liniment) SALICYLATE LINIMENT		250 ml	250 ml(*)	Supply in bottle of distinctive design. Label "External use", "Not for burns".
39.	Lotio calaminae (Calamine lotion) CALAMINE LOTION		500 ml	250 ml	Supply in bottle of distinctive design. Label "External use".
40.	Lotio cetrimidi (Cetrimide lotion) ANTISEPTIC SOLUTION		500 ml	250 ml	A solution of cetrimide 1% in water or equivalent. Supply in bottle of distinctive design. Label "External use".
41.	Magnesii hydroxidum (Magnesium hydroxide mixture) LIQUID LAXATIVE		500 ml	250 ml	A mixture containing 7.9% by weight of magnesium hydroxide with peppermint oil flavouring.
42.	Mistura kaolini et morphinae (Kaolin and morphine mixture) DIARRHOEA MIXTURE		250 ml	250 ml(*)	A mixture containing 2000 mg light kaolin, 650 mg sodium bicarbonate, 0.75 ml chloroform and morphine tincture, water to 15 ml (in each dose).
43.	Naristillae ephedrinae (Ephedrine nose drops) NOSE DROPS	X	30 ml	30 ml	A solution of norephedrine hydrochloride 1% for nasal drops. Supply in bottle of distinctive design with dropper. Label "External use".
44.	Natrii bicarbonates (Sodium bicarbonate)		125 g	125 g	
45.	Oleum arachis (Arachis oil)		250 ml	250 ml	Oleum olivae (olive oil) may be supplied as alternative.
46.	Oleum caryophylli (Oil of cloves) TOOTH ANAESTHETIC	X	30 ml	30 ml	Supply in wide-mouthed bottle of distinctive design. Label "External use".
47.	Paraffinum molle flavum (Yellow soft paraffin) SOFT PARAFFIN		125 g	125 g	

	Item		Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
MEDICINES (continued)					
48.	Tincture benzoini Composita (Tincture of benzoin compound) INHALATION MIXTURE		100 ml	100 ml(*)	A mixture containing 10 g crushed benzoin, 7.5 g prepared storax, 2.5 g tolu balsam, 2 g aloes, alcohol (90%) to 100 ml. Label "External use". "Add 5 ml to 500 ml hot water and inhale vapours".
49.	Unguentum acidi benzoici Compositum (Compound benzoic acid ointment) WHITFIELD'S OINTMENT		100 g	100 g(*)	An ointment containing 6% benzoic acid, 3% salicylic acid, 91% emulsifying ointment.
50.	Unguentum bacitracini (Bacitracin ointment) ANTIBIOTIC OINTMENT		120 g	60 g	An ointment containing bacitracin in a soft paraffin base. Supply in 15 g tube.
51.	Unguentum benzocaini Compositum (Compound benzocaine ointment) HAEMORRHOID OINTMENT		120 g	120 g	An ointment containing 10% benzocaine, 45% zinc ointment, 45% hamamelis ointment. Supply in 15 g tubes.
52.	Unguentum gammabenzeni Hexachloridi (Gemma benzene hexachloride ointment) ANTI-SCABIES OINTMENT	X	150 g	150 g	An ointment containing gamma benzene hexachloride 1%. Supply in 50 g tube.
53.	Unguentum xylocaini Hydrochloridi (Xylocaine ointment) LOCAL ANAESTHETIC OINTMENT	X	60 g	30 g(*)	An ointment containing 5% xylocaine hydrochloride. Supply in 15 g tube.
54.	Unguentum zinci oxidi (Zinc oxide ointment) ZINC OINTMENT		200 g	100 g	An ointment containing 15% zinc oxide.

INSTRUMENTS

1.	Eye spud with covered point	1	1	To be made of stainless steel.
2.	Forceps: dental packing	1	1	To be made of stainless steel.
3.	Forceps: dissecting	1	1	To be made of stainless steel.
4.	Forceps: haemostatic	2	1	To be made of stainless steel, length 15 cm.

	Item	Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
INSTRUMENTS (continued)				
5.	Forceps: sinus	1	1	To be made of stainless steel, length 15 cm.
6.	Forceps: splinter	1	1	To be made of stainless steel, with wide oblique ends.
7.	Scalpel: handle	1	1	No. 3 handle. Suitable for standard scalpel blades.
8.	Scalpel: blades	6	6	No. 10 or No.11 blades.
9.	Scissors	1	1	To be made of stainless steel, one blade sharp-pointed, the other blunt-pointed. Length 15 cm.
10.	Thermometer	3	2	Lens-fronted, stubby-end, half-minute thermometer, with metal or plastic case.
11.	Canvas roll for above instruments	1	1	
12.	Applicators	50	25	To be made of wood.
13.	Artificial airway	1	1	For mouth-to-mouth breathing.
14.	Injection syringe: 2 ml	2	-	Both syringes: glass body with metal plunger and nozzle for standard needles.
15.	Injection syringe: 5 ml	2	1	Supplied in metal case.
16.	Injection needles: hypodermic-diameter 6, length 25 mm	10	6	Alternatively, complete disposable syringes, in which case the quantities indicated here for the needles will apply to each size of syringe.
17.	Injection needles: intramuscular – 10 diameter 8, length 40 mm	10	6	
18.	Luer adaptors for syringe	1	-	For use with hypodermic syringes to enable any type of needle to be used.
19.	Tongue depressors	30	20	To be made of wood.
20.	Catheter sets: olivary ends	1	1	Set: size 6, 10, 14 F or 3, 5, 7 UK.
21.	Catheter sets: soft rubber	1	1	One of each together with stilettos in a closed glass or plastic cylinder with a sprinkling of powdered talc; or a suitable number of disposable plastic catheters in the same sizes.

	Item	Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
INSTRUMENTS (continued)				
22.	Enema kit	1	1	To consist of graduated funnel, rubber tubing 1 metre long with control clamp attached, connexion and rubber catheter. Supply in a box plainly labelled "FOR ENEMA USE ONLY".
23.	Stomach tube	1	1	Standard rubber or plastic 1 m long and fitted with plastic funnel. Tube to bear a mark indicating when its tip has reached the stomach.
APPLIANCES				
24.	Splints: common set	1	1	Wooden splints. Suitable for fractures of limbs and hands.
25.	Splints: serrated, of Gooch type	1	1	A sheet of split 1 m x 1 m.
26.	Splints: thigh, wooden	1	1	Largest size.
27.	Splints: metal set	1	1	Metal with padded ring. One set of three.
28.	Splint: Thomas			
29.	Tourniquet	1	1	Esmarch or Samways type.
30.	Truss: single right pad	1	1	Elastic band types with adjustable buckles. The bands to be not less than 1 m in length
31.	Truss: single left pad	1	1	
32.	Truss: double pads	1	1	
33.	Ligatures, catgut	3	2	In sealed glass tubes sterilized with a fracture scratch and directions for breaking the tube.
34.	Sutures with needles	4	2	Sutures of nylon or silk fitted to eyeless needles with a cutting edge, in sterile sealed glass tubes with fracture scratch and directions for breaking tube. Half to be straight needles, half to be curved.
35.	Suture strips, non-stitch	24	12	Size 2.5 x 50 cm. Butterfly or dumb-bell shape for drawing superficial wounds together in sterile sealed packet.
36.	Suspensory bandages with understraps	2	2	Half to be of medium size and half to be of large size.

	Item	Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
DRESSINGS				
37.	Adhesive elastic bandage, box	2	2(*)	5 cm x 1 m. Supply in a metal container.
38.	Adhesive plaster: small	1	1	Zinc oxide plaster. Supply on a spool. 2.5 cm x 1 m.
39.	Adhesive plaster: large	1	1	7.5 cm x 1.5 m. Zinc oxide plaster. Supply on a spool.
40.	Bandage crepe	4	2	7.5 cm x 1.5 m. Each separately wrapped with size on label.
41.	Bandage roll, gauze, open weave: Small	10	10	2.5 cm x 3 m
42.	Bandage roll, gauze, open weave: Medium	10	10	5.0 cm x 4 m
43.	Bandage roll, gauze, open weave: Large	10	10	7.5 cm x 4 m
				Each separately wrapped, with size on label
44.	Bandage triangle	4	2	1 x 1 x 1.3 m. Each separately wrapped with size on label.
45.	Burn and wound dressing, box	5	3	10 x 10 cm. Sterile bleached cotton or rayon cloth evenly impregnated with yellow soft paraffin, in a polythene envelope hermetically sealed and free from moisture. Ten envelopes per box.
46.	Dressing, adhesive strip	1	1	6 cm x 1 m in a sterile packet.
47.	First aid/emergency dressings: small	3	3	7.5 x 10 cm pad. 5 cm x 3 m. bandage.
48.	First aid/emergency dressings: medium	3	3	10 x 15 cm pad. 5 cm x 3 m bandage.
49.	First aid/emergency dressings: large	3	3	15 x 20 cm pad. 7.5 cm x 4 m bandage.
	Additional information for 47, 48 and 49 above: Pad: cottonwool enclosed in absorbent gauze. Bandage: open-weave gauze with pad stitched to it 30 cm from one end. Pad to be folded length-wise with the surface of the dressing on the inside and the rolled end of the bandage on the outside. Free end of bandage to be wound round and rolled end and the pad. Sterilized in separate sealed wrappers. Label with size of pad and following instruction: "Unwind short length of bandage, straighten pad by pulling on ends of bandage. Apply pad to wound without touching it. Bandage firmly".			
50.	Gauze, plain sterile: Small	5	5	30 cm x 1 m
51.	Gauze, plain sterile: Large	10	3	1 x 1 m
52.	Gauze absorbent ribbon	1	1	2.5 cm x 3 m
				Supply in separate packet and label with size and name of item.

	Item	Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
DRESSINGS (continued)				
53.	Jaconet or equivalent	1	1	Bleached cotton cloth water-proofed on one side.
54.	Lint, absorbent cotton: Small	5	3	15 x 30 cm
55.	Lint, absorbent cotton: Large	10	3	30 x 30 cm
56.	Rolls of cottonwool: small	10	10	20 cm wide, 50 g
57.	Rolls of cottonwool: large	1	1	30 cm wide, 200g
				Supply in separate packet and label with size and name of item
58.	First aid satchel	1	1	A canvas bag with a strap containing: 2 bandages, crepe; 6 bandages, triangle; 4 small 2 medium 1 large — first aid/ emergency dressings: 1 roll of cottonwool, large; 6 safety-pins, medium; 1 artificial airway.
GENERAL MEDICAL EQUIPMENT				
59.	Basins: round	1	1	White enamelled iron, aluminium or plastic, not less than 20 cm diameter and 10 cm depth. Inscribed: “MEDICAL”.
60.	Basins: kidney	1	1	White enamelled iron, aluminium or plastic, length 25 cm.
61.	Bed-pen	1	1	White enamelled iron, large size.
62.	Eye bath	1	1	Made of glass or plastic that is not affected by boiling.
63.	Eye droppers	3	3	Made of glass or plastic that is not affected by boiling.
64.	Eye shades	3	3	
65.	Feeding cup	1	1	Made of porcelain or plastic that is not affected boiling.
66.	Finger stalls	3	6	Assorted sizes, leather or larger quantities if disposable type.
67.	Hot water bottles	2	1	Rubber, with covers.
68.	Ice bags	1	1	For lowering temperature.

	Item	Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
GENERAL MEDICAL EQUIPMENT (continued)				
69.	Measuring glass: small	2	1	Graduated in ml or in minims and drachms.
70	Measuring glass: large	2	1	Graduated in ml and spoonful doses, or in drachms/ounces and spoonful doses.
71.	Microscope slides	3	3(*)	
72.	Rubber sheeting	1	1(*)	Size 1 x 2 m, rolled on a wooden core.
73.	Safety pins	15	15	Size 5 cm, mounted on a card or cards.
74.	Sputum pot: disposable, or	20	10	Waxed cardboard with a twist-on lid, wide base, and height not less than 5 cm.
75.	Sputum pot: non-disposable	1	1	Enamelled iron with close-fitting hinged lid.
76.	Sterilizer	1	1	Size not less than 17.5x5x7.5 cm. Electric with automatic cut-out, or steamheated, or with spirit lamp.
77.	Stretcher	1	1	Neil Robertson type or equivalent.
78.	Surgical gloves, pairs	2	2	Large size, roughened rubber.
79.	Temperature charts	5	5	Four-hourly chart combining temperature, pulse, and respiration.
80.	Urine bottle	1	1	Enamelled iron or plastic, with handle.
81.	Urine test papers: combined strips albumin/sugar	2	1(*)	Container with close-fitting screw cap of metal, strips together with suitable desiccant (silica gel). Renew after 12 months or earlier if colour changes are noticed. Label “Combined testing strip for albumin and sugar”.
82.	Salt test paper	2	1(*)	Booklets of 20 test papers impregnated with silver salt, protected from light. Label “Salt in urine test papers. Keep away from light”.
83.	Bottles: dispensing, small	6	5(*)	60-ml bottles with screw caps. Marked at 4 ml (1 teaspoonful).
84.	Bottles: dispensing, large	6	5(*)	180-ml bottles with screw caps. Marked at 15 ml (1 tablespoonful).
85.	Bottles: poison	5	3(*)	60-ml bottles of distinctive design.

	Item	Table I Category 1	Table II Categories 2 and 3	Additional information for use of chemist and for labelling
GENERAL MEDICAL EQUIPMENT (continued)				
86.	Dispensing envelopes	100	50	Small size.
87.	Palette knife	1	1	For dispensing ointments.
88.	Ointment boxes	15	6	For dispensing ointments. Either chipwood boxes stacked in nests of three, or tins of 15 g.
89.	Labels: plain	100	100	
90.	Labels: poison	50	50	
91.	Concentrated antiseptic	500 ml	500 ml	A solution of cetrimide 20% in water or equivalent. Label “Concentrated antiseptic lotion” together with full instructions for use. The recommended dilutions to be suitable for the purpose specified.
92.	Chloride of lime			Supply in sealed and dated tins with instructions. The minimum amount to be carried is to be calculated on the amount of stabilized chloride of lime or its equivalent necessary to chlorinate the ship’s largest fresh-water tank so as to produce a concentration of one part of free chlorine in one million parts of water.
93.	Dilute alcohol	250 ml	200 ml(*)	70%. Supply in bottle of distinctive design and label “External use”. Alternatively, surgical spirit may be supplied.
94.	Disinfectant	2 litres	1 litre	Supply in bottle of distinctive design and label “Disinfectant” together with full instruction for use. The recommended dilutions to be suitable for the purpose specified. To consist of a white fluid in a finely dispersed, stabilized emulsion containing coal tar acids or other phenolic bodies with or without hydrocarbons.
95.	Methyl alcohol	500 ml	500 ml	Only if sterilizer is heated by a spirit lamp.
96.	International Medical Guide for Ships	1	1	
97.	World Directory of Venereal Diseases: Treatment Centres at Ports, published by the World Health Organization.			