PART 7 CHAPTER 3

OPERATIONAL REQUIREMENTS
ALL SHIPS

JANUARY 2002

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CHANGES IN THE RULES

General

The present edition of the rules includes additions and amendments decided by the Board as of December 2001, and supersedes the January 1998 edition of the same chapter.

The rule changes come into force on 1 July 2002.

This chapter is valid until superseded by a revised chapter. Supplements will not be issued except for an updated list of minor amendments and corrections presented in Pt.0 Ch.1 Sec.3. Pt.0 Ch.1 is normally revised in January and July each year.

Revised chapters will be forwarded to all subscribers to the rules. Buyers of reprints are advised to check the updated list of rule chapters printed Pt.0 Ch.1 Sec.1 to ensure that the chapter is current.

Main changes

- Sec. 3 Safety of Navigation

IMO’s Maritime Safety Committee (MSC) adopted a new SOLAS Chapter V at their 73rd session. The new chapter V comes into force from 1 July 2002. Because of this, the rules have been updated in order to incorporate the new requirements. Regulations 1, 25, 26, 33 and 35 apply.


IMO’s Maritime Safety Committee (MSC) adopted a new SOLAS Chapter V at their 73rd session. The new chapter V comes into force from 1 July 2002. Because of this, the DNV rules have been updated in order to incorporate the new requirements. Regulations 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 24, 31, 32, 34 and 35 and the appendix to Chapter V apply.


IMO’s Maritime Safety Committee (MSC) adopted a new SOLAS Chapter V at their 73rd session. The new chapter V comes into force from 1 July 2002. Because of this, the DNV rules have been updated in order to incorporate the new requirements. Regulation 32 applies.

Corrections and Clarifications

In addition to the above stated rule amendments, a number of detected errors, corrections and clarifications have been made to the existing rule text.
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SECTION 1
GENERAL REGULATIONS

A. Classification

A 100 General

101 The present chapter of the rules contains mandatory operational requirements related to main class. Ch.4 contains mandatory operational requirements related to additional classes, i.e. special ship types or systems.

The requirements are to be observed by owner and master as applicable to all ships classed with the Society.

102 The operational requirements given in Ch.3 and Ch.4 are based on operational regulations given in the International Maritime Standards. In addition safe operation of ships is to be based on a set of IMO Codes and Resolutions to which reference is given in the rule text.

103 In each section direct reference is given to the convention text and relevant regulations adopted. Convention text is printed in italics.

104 Where any regulation refers to “the satisfaction of the Administration”, the Society's interpretations are given in connection with the item in question. IMO-interpretations are included with reference.

105 If any parts of the rules are subject to discussion or misunderstanding the SOLAS or MARPOL text shall prevail.

A 200 Scope

201 Only those operational regulations which may be verified at periodical surveys are given as rule requirements (see also Ch.1 Sec.1 A200).

202 Operational regulations not verifiable at periodical surveys are given in Appendices as guidance to owners, masters or other responsible persons.

A 300 Application

301 The application of the various requirements in relation to type of ship, system or equipment and in relation to the date of initial class assignment is specified in the various sections.
SECTION 2
LIFESAVING

A. Classification

A 100 General

101 Reference is made to the Convention for the Safety of Life at Sea (SOLAS), Chapter III: Lifesaving Appliances and Arrangements with the latest amendments as per 1.7.98. This section is covering the operational requirements of that chapter. See Pt.3 Ch.6 for the technical requirements related to newbuildings.

B. Manning of Survival Craft and Supervision

B 100 Regulation 10

This regulation applies to all ships.

B 200 Preparation of muster list

201 The muster list (see Pt.3 Ch.6 Sec.2 C) shall be prepared before the ship proceeds to sea. After the muster list has been prepared, if any changes take place in the crew which necessitates an alteration in the muster list, the master shall either revise the list or prepare a new list.

C. Emergency Training and Drills

C 100 Regulation 19

1 This regulation applies to all ships.

2 Familiarity with safety installations and practice musters

2.1 Every crew member with assigned emergency duties shall be familiar with these duties before the voyage begins.

2.2 On a ship engaged on a voyage where passengers are scheduled to be on board for more than 24 h, musters of the passengers shall take place within 24 h after their embarkation. Passengers shall be instructed in the use of the lifejackets and the action to take in an emergency.

2.3 Whenever new passengers embark, a passenger safety briefing shall be given immediately before sailing, or immediately after sailing. The briefing shall include the instructions required by regulations 8.2 and 8.4 (Pt.3 Ch.6 Sec.2 C100), and shall be made by means of an announcement, in one or more languages likely to be understood by the passengers. The announcement shall be made on the ship's public address system, or by other equivalent means likely to be heard at least by the passengers who have not yet heard it during the voyage. The briefing may be included in the muster required by paragraph 2.2 if the muster is held immediately upon departure. Information cards or posters or video programmes displayed on ships video displays may be used to supplement the briefing, but may not be used to replace the announcement.

3 Drills

3.1 Drills shall, as far as practicable, be conducted as if there were an actual emergency.

3.2 Every crew member shall participate in at least one abandon ship drill and one fire drill every month. The drills of the crew shall take place within 24 h of the ship leaving a port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular ship in the previous month. When a ship enters service for the first time, after modification of a major character or when a new crew is engaged, these drills shall be held before sailing. The Administration may accept other arrangements that are at least equivalent for those classes of ships for which this is impracticable.

3.3 Abandon ship drill

3.3.1 Each abandon ship drill shall include:

1.1 summoning of passengers and crew to muster stations with the alarm required by regulation 6.4.2 (Pt.3 Ch.6 Sec.2 A100) followed by drill announcement on the public address or other communication system and ensuring that they are made aware of the order to abandon ship;

1.2 reporting to stations and preparing for the duties described in the muster list;

1.3 checking that passengers and crew are suitably dressed;

1.4 checking that lifejackets are correctly donned;

1.5 lowering of at least one lifeboat after any necessary preparation for launching;

1.6 starting and operating the lifeboat engine;

1.7 operation of davits used for launching liferafts;

Guidance note:
The passengers are not required to take part in the lowering of the lifeboats.

3.3.2 Different lifeboats shall, as far as practicable, be lowered successively.

3.3.3 Except as provided in paragraphs 3.3.4 and 3.3.5, each abandon ship drill shall include:

1 instruction in the use of radio life-saving appliances.

3.3.4 On ships where passengers are to be on board for more than 24 h, the drills shall include:

1.1 operation of pumps;

1.2 engagement of the rudder;

1.3 operation of the radio communication equipment and reduction of power (except for the engines of the propulsion machinery);

1.4 operation of emergency air conditioning and ventilation systems; and

1.5 operation of lifeboats.

Guidance note:
The passengers are not required to take part in the operation of the lifeboats.

3.3.5 On ships not required to take part in the operation of the lifeboats, the drills shall include:

1 a mock search and rescue of passengers trapped in their staterooms; and

1.2 a mock search and rescue of passengers trapped in the lifeboats.

Guidance note:

1.3 a mock search and rescue of passengers trapped in the lifeboats; and

1.4 a mock search and rescue of passengers trapped in the water.
3.3.4 Lowering into the water, rather than launching of a lifeboat arranged for free-fall launching, is acceptable where free-fall launching is impracticable provided the lifeboat is free-fall launched with its assigned operating crew aboard and manoeuvred in the water at least once every six months. However, in cases where it is impracticable, the Administration may extend this period to 12 months provided that arrangements are made for simulated launching which will take place at intervals of not more than 6 months.

3.3.5 The Administration may allow ships operating on short international voyages not to launch the lifeboats on one side if their berthing arrangements in port and their trading patterns do not permit launching of lifeboats on that side. However, all such lifeboats shall be lowered at least once every 3 months and launched at least annually.

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

3.3.7 If lifeboat and rescue boat launching drills are carried out with the ship making headway, such drills shall, because of the dangers involved, be practised in sheltered waters only and under the supervision of an officer experienced in such drills. *

* Refer to the Guidelines on Training for the Purpose of Launching Lifeboats and Rescue Boats from Ships Making Headway Through the Water adopted by the Organization by resolution A.624(15).

3.3.8 If a ship is fitted with marine evacuation systems, drills shall include exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the on-board training aids required by regulation 35.4 (Pt.3 Ch.6 Sec.4 B100). Additionally every system party member shall, as far as practicable, be further trained by participation in a full deployment of a similar system into water, either on board a ship or ashore, at intervals of not longer than 2 years, but in no case longer than 3 years. This training can be associated with the deployments required by regulation 20.8.2 (D100).

3.3.9 Emergency lighting for mustering and abandonment shall be tested at each abandon ship drill.

3.4 Fire drills

3.4.1 Fire drills should be planned in such a way that due consideration is given to regular practice in the various emergencies that may occur depending on the type of ships and the cargo.

3.4.2 Each fire drill shall include:

1. reporting to stations and preparing for the duties described in the muster list required by regulation 8 (Pt.3 Ch.6 Sec.2 C100);
2. starting of a fire pump, using at least the two required jets of water to show that the system is in proper working order;
3. checking of fireman’s outfit and other personal rescue equipment;
4. checking of relevant communication equipment;
5. checking of the operation of watertight doors, fire doors, fire dampers and main inlets and outlets of ventilation systems in the drill area; and
6. checking the necessary arrangements for subsequent abandoning of the ship.

3.4.3 The equipment used during drills shall immediately be brought back to its fully operational condition and any faults and defects discovered during the drills shall be remedied as soon as possible.

4 On-board training and instructions

4.1 On-board training in the use of the ship’s life-saving appliances, including survival craft equipment, and in the use of the ship’s fire-extinguishing appliances shall be given as soon as possible but not later than 2 weeks after a crew member joins the ship. However, if the crew member is on a regularly scheduled rotative assignment to the ship, such training shall be given not later than 2 weeks after the time of first joining the ship.

Instructions in the use of the ship’s fire-extinguishing appliances, life-saving appliances, and in survival at sea shall be given at the same interval as the drills. Individual instruction may cover different parts of the ship’s life-saving and fire-extinguishing appliances, but all the ship’s life-saving and fire-extinguishing appliances shall be covered within any period of 2 months.

4.2 Every crew member shall be given instructions which shall include but not necessarily be limited to:

1. operation and use of the ship’s inflatable liferafts;
2. problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures;
3. special instructions necessary for use of the ship’s life-saving appliances in severe weather and severe sea conditions; and
4. operation and use of fire-extinguishing appliances.

4.3 On-board training in the use of davit-launched liferafts shall take place at intervals of not more than 4 months on every ship fitted with such appliances. Whenever practicable this shall 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 ship’s life-saving equipment; such a special liferaft shall be conspicuously marked.

5 Records

The date when musters are held, details of abandon ship drills and fire drills, drills of other life-saving appliances and on-board training shall be recorded in such log-book as may be prescribed by the Administration. If a full muster, drill or training session is not held at the appointed time, an entry shall be made in the log-book stating the circumstances and the extent of the muster, drill or training session held. (SOLAS reg. III/19)

D. Operational Readiness, Maintenance and Inspections

D 100 Regulation 20

1 This regulation applies to all ships. The requirements of paragraphs 3 and 6.2 shall be complied with, as far as is practicable, on ships constructed before 1 July 1986.

2 Operational readiness

Before the ship leaves port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.

3 Maintenance

3.1 Instructions for on-board maintenance of life-saving appliances complying with the requirements of regulation 36 (Pt.3 Ch.6 Sec.4 C100) shall be provided and maintenance shall be carried out accordingly.

3.2 The Administration may accept, in lieu of the instructions required by paragraph 3.1, a shipboard planned maintenance programme which includes the requirements of regulation 36 (Pt.3 Ch.6 Sec.4 C100).

4 Maintenance of falls

4.1 Falls used in launching shall be turned end for end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier.
4.2 The Administration may accept in lieu of the "end for end- ing" required in paragraph 4.1, periodic inspection of the falls and their renewal whenever necessary due to deterioration or at intervals of not more than 4 years, whichever one is earlier.

5 Spares and repair equipment

Spares and repair equipment shall be provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly.

6 Weekly inspection

The following tests and inspections shall be carried out weekly:

.1 all survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use;

.2 all engines in lifeboats and rescue boats shall be run for a total period of not less than 3 min provided the ambient temperature is above the minimum temperature required for starting and running the engine. During this period of time, it should be demonstrated that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow it to be run other than with its propeller submerged for a period of 3 min, it should be run for such period as prescribed in the manufacturer's handbook. In special cases the Administration may waive this requirement for ships constructed before 1 July 1986; and

.3 the general emergency alarm system shall be tested.

7 Monthly inspections

Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using the checklist required by regulation 36.1 (Pt.3 Ch.6 Sec.4 C100) to ensure that they are complete and in good order. A report of the inspection shall be entered in the log-book.

8 Servicing of inflatable liferafts, inflatable lifejackets, marine evacuation systems, and inflated rescue boats.

8.1 Every inflatable liferaft, inflatable lifejacket, and marine evacuation system shall be serviced:

.1 at intervals not exceeding 12 months, provided where in any case this is impracticable, the Administration may extend this period to 17 months; and

.2 at an approved servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.

* Refer to the Recommendation on Conditions for the Approval of Servicing Stations for Inflatable Liferafts adopted by the Organization by resolution A.761(18).

8.2 Rotational deployment of marine evacuation systems

In addition to or in conjunction with the servicing intervals of marine evacuation systems required by paragraph 8.1, each marine evacuation system should be deployed from the ship on a rotational basis at intervals to be agreed by the Administration provided that each system is to be deployed at least once every six years.

8.3 An Administration which approves new and novel inflatable liferaft arrangements pursuant to regulation 4 (Pt.3 Ch.6 Sec.1 E100) may allow for extended service intervals on the following conditions:

8.3.1 The new and novel liferaft arrangement has proved to maintain the same standard, as required by testing procedure, during extended service intervals.

8.3.2 The liferaft system shall be checked on board by certified personnel according to paragraph 8.1.1.

8.3.3 Service at intervals not exceeding 5 years shall be carried out in accordance with the recommendations of the Organization.*

* Refer to the Recommendation on Conditions for the Approval of Servicing Stations for Inflatable Liferafts adopted by the Organization by resolution A.761(18).

8.4 All repairs and maintenance of inflated rescue boats shall be carried out in accordance with the manufacturer's instructions. Emergency repairs may be carried out on board the ship; however, permanent repairs shall be effected at an approved servicing station.

8.5 An Administration which permits extension of liferaft service intervals in accordance with paragraph 8.3 shall notify the Organization of such action in accordance with regulation 1/5(b).

9 Periodic servicing of hydrostatic release units

Hydrostatic release units, other than disposable hydrostatic release units, shall be serviced:

.1 at intervals not exceeding 12 months, provided where in any case this is impracticable, the Administration may extend this period to 17 months; and

.2 at a servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.

10 Marking of stowage locations

Containers, brackets, racks, and other similar stowage locations for life-saving equipment shall be marked with symbols in accordance with the recommendations of the Organization, indicating the devices stowed in that location for that purpose. If more than one device is stowed in that location, the number of devices shall also be indicated.

* Refer to the Symbols Related to Life-Saving Appliances and Arrangements, adopted by the Organization by resolution A.760(18).

11 Periodic servicing of launching appliances and on-load release gear

11.1 Launching appliances:

.1 shall be serviced at recommended intervals in accordance with instructions for on-board maintenance as required by regulation 36 (Pt.3 Ch.6 Sec.4 C100);

.2 shall be subjected to a thorough examination at intervals not exceeding 5 years; and

.3 shall upon completion of the examination in .2 be subjected to a dynamic test of the winch brake in accordance with paragraph 6.1.2.5.2 of the Code.

11.2 Lifeboat on-load release gear shall be:

.1 serviced at recommended intervals in accordance with instructions for on board maintenance as required by regulation 36 (Pt.3 Ch.6 Sec.4 C100);

.2 subjected to a thorough examination and test during the surveys required by regulation 1/7 and 1/8 by properly trained personnel familiar with the system; and

.3 operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment whenever the release gear is overhauled. Such overhauling and test shall be carried out at least once every 5 years.*

* Refer to the Recommendation on Testing of Life-Saving Appliances, adopted by the Organization by resolution A.689(17), as it may be amended.
SECTION 3
SAFETY OF NAVIGATION

A. Classification

A 100 General

101 The requirements in this chapter are in compliance with the International Convention for the Safety of Life at Sea (SOLAS), Chapter V (Safety of Navigation) with the latest amendments. In force from 1 July 2002.

A 200 Application (Regulation 1)

201 General

1 Unless expressly provided otherwise, this chapter shall apply to all ships on all voyages, except:

.1 warships, naval auxiliaries and other ships owned or operated by a Contracting Government and used only on government non-commercial service; and

.2 ships solely navigating the Great Lakes of North America and their connecting and tributary waters as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada.

However, warships, naval auxiliaries or other ships owned or operated by a Contracting Government and used only on government non-commercial service are encouraged to act in a manner consistent, so far as reasonable and practicable, with this chapter.

2 The Administration may decide to what extent this chapter shall apply to ships operating solely in waters landward of the baselines which are established in accordance with international law.

3 A rigidly connected composite unit of a pushing vessel and associated pushed vessel, when designed as a dedicated and integrated tug and barge combination, shall be regarded as a single ship for the purpose of this chapter.

4 The Administration shall determine to what extent the provisions of regulations 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27 and 28 do not apply to the following categories of ships:

.1 ships below 150 gross tonnage engaged on any voyage;

.2 ships below 500 gross tonnage not engaged on international voyages; and

.3 fishing vessels.

(SOLAS reg. V/1)

202 Operational regulations considered outside the scope of classification are given as guidance to owners and masters in Appendix A.

B. Requirements

B 100 Operation of main source of electrical power and steering gear (Regulation 25)

101 In areas where navigation demands special caution, ships shall have more than one steering gear power unit in operation when such units are capable of simultaneous operation.

(SOLAS reg. V/25)

B 200 Steering gear: Testing and drills (Regulation 26)

201 General

1 Within 12 hours before departure, the ship's steering gear shall be checked and tested by the ship's crew. The test procedure shall include, where applicable, the operation of the following:

.1 the main steering gear;

.2 the auxiliary steering gear;

.3 the remote steering gear control systems;

.4 the steering positions located on the navigation bridge;

.5 the emergency power supply;

.6 the rudder angle indicators in relation to the actual position of the rudder;

.7 the remote steering gear control system power failure alarms;

.8 the steering gear power unit failure alarms; and

.9 automatic isolating arrangements and other automatic equipment.

2 The checks and tests shall include:

.1 the full movement of the rudder according to the required capabilities of the steering gear;

.2 a visual inspection for the steering gear and its connecting linkage; and

.3 the operation of the means of communication between the navigation bridge and steering gear compartment.

A checklist comprising the points in paragraphs 1 and 2 is to be compiled by the ship and filled in together with the routine checks and tests prescribed in paragraphs 1 and 2.

3.1 Simple operating instructions with a block diagram showing the change-over procedures for remote steering gear control systems and steering gear power units shall be permanently displayed on the navigation bridge and in the steering compartment.

3.2 All ships' officers concerned with the operation and/or maintenance of steering gear shall be familiar with the operation of the steering systems fitted on the ship and with the procedures for changing from one system to another.

4 In addition to the routine checks and tests prescribed in paragraphs 1 and 2, emergency steering drills shall take place at least once every three months in order to practise emergency steering procedures. These drills shall include direct control within the steering gear compartment, the communications procedure with the navigation bridge and, where applicable the operation of alternative power supplies.

5 The Administration may waive the requirements to carry out the checks and tests prescribed in paragraphs 1 and 2 for ships which regularly engage on voyages of short duration. Such ships shall carry out these checks and tests at least once every week.

6 The date upon which the checks and tests prescribed in paragraphs 1 and 2 are carried out and the date and details of emergency steering drills carried out under paragraph 4, shall be recorded.

(SOLAS reg. V/26)

The time and date upon which tests according to the check lists, and the emergency steering drills are carried out are to be recorded in the logbook.

The logbook and check lists are to be submitted at surveys.

B 300 Distress messages: Obligations and procedures (Regulation 33)

301 General

1 The master of a ship at sea which is in a position to be able to provide assistance on receiving a signal from any source that persons are in distress at sea, is bound to proceed with all speed to their assistance, if possible informing them or the search and rescue service that the ship is doing so. If the ship receiving the distress alert is unable or, in the special circumstances of the case, considers it unreasonable or unnecessary to proceed to their assistance, the master must enter in the log-
book the reason for failing to proceed to the assistance of the persons in distress, taking into account the recommendation of the Organization, to inform the appropriate search and rescue service accordingly.

2. The master of a ship in distress or the search and rescue service concerned, after consultation, so far as may be possible, with the masters of ships which answer the distress alert, has the right to requisition one or more of those ships as the master of the ship in distress or the search and rescue service considers best able to render assistance, and it shall be the duty of the master or masters of the ship or ships requisitioned to comply with the requisition by continuing to proceed with all speed to the assistance of persons in distress.

3. Masters of ships shall be released from the obligation imposed by paragraph 1 on learning that their ships have not been requisitioned and that one or more other ships have been requisitioned and are complying with the requisition. This decision shall, if possible be communicated to the other requisitioned ships and to the search and rescue service.

4. The master of a ship shall be released from the obligation imposed by paragraph 1 and, if his ship has been requisitioned, from the obligation imposed by paragraph 2 on being informed by the persons in distress or by the search and rescue service or by the master of another ship which has reached such persons that assistance is no longer necessary.

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

(SOLAS reg. V/33)

Guidance note:


The log-book referred to in 1 shall be available during surveys.

B 400 Misuse of distress signals (Regulation 35)

401 General

The use of an international distress signal, except for the purpose of indicating that a person or persons are in distress, and the use of any signal which may be confused with an international distress signal, are prohibited.

(SOLAS reg. V/35)
SECTION 4
RADIOTELEGRAPHY AND RADIOTELEPHONY

A. Classification

A 100  General

101  Reference is made to the International Convention for Safety of Life at Sea (SOLAS), Chapter IV.

A 200  Application

201  This section applied until 1999-02-01 for ships keel laid before 1995-02-01 to which Chapter IV of the 1974/83 SOLAS Convention applies. Sec.5 of this chapter applies for ships to which Chapter IV of the 1988 Amendments (GMDSS) to SOLAS 1974 applies.

Guidance note:
This section applies to ships fitted with radiotelegraph installation or radiotelephony installation.

---end---of---Guidance---note---

B. Watches

B 100  Watches — radiotelegraph (Regulation 6)

(a) Each ship which in accordance with regulation 3 or regulation 4 of this chapter is fitted with a radiotelegraph station shall, while at sea, carry at least one radio officer and, if not fitted with a radiotelegraph auto alarm, shall, subject to the provisions of paragraph (d) of this regulation, listen continuously on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker.

(b) Each passenger ship which in accordance with regulation 3 of this chapter is fitted with a radiotelegraph station, if fitted with a radiotelegraph auto alarm, shall, subject to the provisions of paragraph (d) of this regulation, and while at sea, listen on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker, as follows:

(i) if carrying or certificated to carry 250 passengers or less, at least 8 hours' listening a day in the aggregate;

(ii) if carrying or certificated to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration between two consecutive ports, at least 16 hours' listening a day in the aggregate. In this case the ship shall carry at least two radio officers;

(iii) if carrying or certificated to carry more than 250 passengers and engaged on a voyage of less than 16 hours' duration between two consecutive ports, at least 8 hours' listening a day in the aggregate.

(c) Each cargo ship which in accordance with regulation 3 of this chapter is fitted with a radiotelegraph station, if fitted with a radiotelegraph auto alarm, shall, subject to the provisions of paragraph (d) of this regulation, and while at sea, listen on the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker, for at least 8 hours a day in the aggregate.

(i) During the period when a radio officer is required by this regulation to listen on the radiotelegraph distress frequency, the radio officer may discontinue such listening during the time when he is handling traffic on other frequencies, or performing other essential radio duties, but only if it is impracticable to listen by split headphones or loudspeaker. The listening watch shall always be maintained by a radio officer using headphones or a loudspeaker during the silence periods provided for by the Radio Regulations.

The term «essential radio duties» in this paragraph includes urgent repairs of:

(1) equipment for radiocommunication used for safety;

(2) radio navigational equipment by order of the master.

(ii) In addition to the provisions of subparagraph (i) of this paragraph, on ships other than multi-radio officer passenger ships, the radio officer may, in exceptional cases, i.e. when it is impractical to listen by split headphones or loudspeaker, discontinue listening by order of the master in order to carry out maintenance required to prevent imminent malfunction of:

— equipment for radiocommunication used for safety;

— radio navigational equipment;

— other electronic navigational equipment including its repair;

provided that:

(1) the radio officer, at the discretion of the Administration concerned, is appropriately qualified to perform these duties; and

(2) the ship is fitted with a receiving selector which meets the requirements of the Radio Regulations;

(3) the listening watch is always maintained by a radio officer using headphones or loudspeaker during the silence periods provided for by the Radio Regulations.

(e) In all ships fitted with a radiotelegraph auto alarm this radiotelegraph auto alarm shall, while the ship is at sea, be in operation whenever there is no listening being kept under paragraphs (b), (c) or (d) of this regulation and whenever practicable, during direction-finding operations.

(f) The listening periods provided for by this regulation, including those which are determined by the Administration, should be maintained preferably during periods prescribed for the radiotelegraph service by the Radio Regulations.

B 200  Watches — radiotelephone (Regulation 7)

(a) Each ship which is fitted with a radiotelephone station in accordance with regulation 4 shall, for safety purposes while at sea, maintain continuous watch on the radiotelephone distress frequency in the place on board from which the ship is usually navigated, by use of a radiotelephone distress frequency watch receiver using a loudspeaker, a filtered loudspeaker or radiotelephone auto alarm.

Guidance note:
Reference is made to the Recommendation on Operational Standards for Radiotelephone Watch Receivers adopted by the Organization by resolution A.383(X).

---end---of---Guidance---note---

(b) Each ship referred to in paragraph (a) shall carry qualified radiotelephone operators (who may be the master, an officer or
a member of the crew) as follows:

(i) if of 300 gross tonnage and upwards but less than 500 gross tonnage, at least one operator;

(ii) if of 500 gross tonnage and upwards but less than 1600 gross tonnage, at least two operators. If such a ship carries one radiotelephone operator exclusively employed for duties related to radiotelephony, a second operator is not obligatory.

(c) Each ship which in accordance with regulation 3 or regulation 4 is fitted with a radiotelegraph station shall, while at sea, maintain continuous watch on the radiotelephone distress frequency in a place to be determined by the Administration, by use of a radiotelephone distress frequency watch receiver, using a loudspeaker, a filtered loudspeaker or radiotelephone auto alarm.

B 300 Watches — VHF radiotelephone (Regulation 8)

Each ship which is fitted with a VHF radiotelephone installation in accordance with regulation 4-1 shall at sea maintain a continuous listening watch on the navigating bridge:

(i) on 156.8 MHz (channel 16) when practicable, or

(ii) for such periods and on such channels as may be required by the Contracting Government referred to in regulation 4-1(b).

Guidance note:
Reference is made to the Performance Standards for VHF Multiple Watch Facilities adopted by the Organization by resolution A.524(13).

---end---of---Guidance---note---

C. Radio Logs

C 100 Radio Logs (Regulation 19)

(a) The radio log (diary of the radio service) required by the Radio Regulations for a ship which is fitted with a radiotelegraph station in accordance with regulation 3 or regulation 4 of this chapter shall be kept in the radiotelegraph operating room during the voyage. Every radio officer shall enter in the log his name, the times at which he goes on and off watch, and all incidents connected with the radio service which occur during his watch which may appear to be of importance to safety of life at sea. In addition, there shall be entered in the log:

(i) the entries required by the Radio Regulations;

(ii) details of the maintenance, including a record of the charging of the batteries, in such forms as may be prescribed by the Administration;

(iii) a daily statement that the requirement of paragraph (p) of regulation 10 of this chapter has been fulfilled;

(iv) details of the tests of the reserve transmitter and reserve source of energy made under paragraph (s) of regulation 10 of this chapter;

Regulation 10 (p) and (s):

(p) While the ship is at sea, accumulator batteries, whether forming part of the main installation or reserve installation, shall be brought up to the normal fully-charged condition daily.

(s) At sea, the reserve transmitter, if not used for communications, shall be tested daily using a suitable artificial antenna, and at least once during each voyage using the reserve antenna if installed. The reserve source of energy shall also be tested daily.

(v) in ships fitted with a radiotelegraph auto alarm details of tests made under paragraph (c) of regulation 11 of this chapter;

Regulation 11 (c) and (d):

(c) In ships fitted with a radiotelegraph auto alarm, its efficiency shall be tested by a radio officer at least once every 24 hours while at sea. If it is not in working order, the radio officer shall report that fact to the master or officer on watch on the bridge.

(d) A radio officer shall periodically check the proper functioning of the radiotelegraph auto alarm receiver, with its normal antenna connected, by listening to signals and by comparing them with similar signals received on the radiotelegraph distress frequency on the main installation.

Regulation 13 (j):

(j) At sea a radio officer shall at weekly intervals test the transmitter using a suitable artificial antenna, and shall bring the battery up to full charge if it is of a type which requires charging.

Regulation 14 (i):

(i) At sea a radio officer or a radiotelephone operator, as appropriate, shall at weekly intervals test the transmitter, using a suitable artificial antenna and shall bring the battery up to full charge if it is of a type which requires charging.

Regulation 16 (l):

(l) While at sea, any battery provided shall be kept charged so as to meet the requirements of paragraph (l) of this regulation.

Regulation 13 (j):

(j) At sea a radio officer shall at weekly intervals test the transmitter using a suitable artificial antenna, and shall bring the battery up to full charge if it is of a type which requires charging.

(vii) details of the maintenance of the batteries, including a record of the charging (if applicable) required by paragraph (i) of regulation 14 of this chapter, and details of the tests required by that paragraph in respect of the transmitters fitted in lifeboats;

Regulation 14 (i):

(i) At sea a radio officer or a radiotelephone operator, as appropriate, shall at weekly intervals test the transmitter, using a suitable artificial antenna and shall bring the battery up to full charge if it is of a type which requires charging.

(vii) the time at which the listening watch was discontinued in accordance with paragraph (d) of regulation 6 (B100) of this chapter, together with the reason and the time at which the listening watch was resumed.

(b) The radio log (diary of the radio service) required by the Radio Regulations for a ship which is fitted with a radiotelephone station in accordance with regulation 4 of this chapter shall be kept at the place where listening watch is maintained. Every qualified operator, and every master, officer or crew member carrying out a listening watch in accordance with regulation 7 (B200) of this chapter, shall enter in the log, with his name, the details of all incidents connected with the radio service which occur during his watch which may appear to be of importance to safety of life at sea. In addition, there shall be entered in the log:

(i) the details required by the Radio Regulations;

(ii) the time at which listening watch begins when the ship leaves port, and the time at which it ends when the ship reaches port;

(iii) the time at which listening watch is for any reason discontinued, together with the reason, and the time at which listening watch is resumed;

(iv) details of the maintenance of the batteries (if provided), including a record of the charging required by paragraph (l) of regulation 16 of this chapter;

Regulation 16 (l):

(l) While at sea, any battery provided shall be kept charged so as to meet the requirements of paragraph (l) of this regulation.

(v) details of the maintenance of the batteries, including a record of the charging (if applicable) required by paragraph (i) of regulation 14 of this chapter (see (d vii)), and details of the tests required by that paragraph in respect of portable radio app-
paratus for survival craft.

(c) On each ship fitted with a VHF radiotelephone installation in accordance with regulation 4-1:

(i) the entries required by the Radio Regulations shall be recorded in the radio log in accordance with the requirements of the Administration;

(ii) a summary of all communication relating to distress, urgency and safety traffic shall be recorded in the ship’s log.

(d) Radio logs shall be available for inspection by the officers authorized by the Administration to make such inspection.

Regulation 4-1:
VHF radiotelephone installation

(a) Passenger ships irrespective of size and cargo ships of 300 gross tonnage and upwards shall be fitted with a VHF radiotelephone installation complying with the provisions of regulation 17.

(b) The provisions of regulation 17 shall also apply for VHF radiotelephone installations required by a Contracting Government for all ships to which chapter V (SOLAS) applies navigating in an area under its jurisdiction and for which a VHF radiotelephone installation is not made compulsory by paragraph (a).

Regulation 17:
VHF radiotelephone installation

(a) The VHF radiotelephone installation shall be in the upper part of the ship complying with the provisions of this regulation and comprising a transmitter and receiver, a source of energy capable of actuating them at their rated power levels, and an antenna suitable for efficient radiating and receiving signals at the operating frequencies.

(b) On board passenger ships irrespective of size and cargo ships of 500 gross tonnage and upwards it shall be possible to operate the VHF radiotelephone installation from a source of energy which is situated in the upper part of the ship and has sufficient capacity for at least six hours of operation.

(c) The Administration may authorize the use of the reserve source of energy of the radiotelegraph installation or the radiotelephone installation respectively referred to in regulation 16(m) and regulation 16(j) to supply the VHF radiotelephone installation. In this case the reserve source of energy is required to be of a capacity sufficient to operate simultaneously the VHF radiotelephone installation and:

(i) the reserve radiotelegraph transmitter and receiver for at least six hours unless a switching device is fitted to ensure alternate operation only; or

(ii) the radiotelephone transmitter and receiver for at least six hours unless a switching device is fitted to ensure alternate operation only.

(d) The VHF radiotelephone installation shall conform to the requirements laid down in the Radio Regulations for equipment using in the VHF maritime mobile radiotelephone service and shall be capable of operation on those channels specified by the Radio Regulations and as may be required by the Contracting Government referred to in regulation 4-1(b).

(e) The Contracting Government referred to in regulation 4-1(b) shall not require the transmitter R.F. carrier power output to be greater than 10 W. The antenna shall, in so far as is practicable, have an unobstructed view in all directions.

(f) Control of the channels required for navigational safety shall be immediately available on the navigating bridge convenient to the conning position and, where necessary, facilities should be available to permit radiocommunications from the wings of the navigating bridge.

* Reference is made to the Recommendation on Operational Standards for VHF Radiotelephone Installations adopted by the Organization by resolution A.385(X).

** For guidance purposes, it is assumed that each ship is fitted with a vertically polarized unity gain antenna at a nominal height of 9.15 m above water, a transmitter R.F. power output of 10 W and a receiver sensitivity of 2 µV across the input terminals for 20 dB signal-to-noise ratio.
SECTION 5
GMDSS RADIOCOMMUNICATION

A. Classification

A 100  General
101  Reference is made to the International Convention for Safety of Life at Sea (SOLAS), Chapter IV with the latest amendments (GMDSS 88).

A 200  Application
201  This section is applicable for ships to which Chapter IV of the 1988 Amendments (GMDSS) to SOLAS 1974 applies.
202  Operational regulations considered outside the scope of classification are given as guidance to owners, masters and radio officers in Appendix C.

B. Maintenance

B 100  Maintenance requirements
101  All radio equipment is to be properly operated and maintained, see Regulation 15 (Pt.4 Ch.12 Sec.1 B) for background and information.
102  All reasonable steps are to be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in regulation 4 (Pt.4 Ch.12 Sec.1 B100). Malfunction of the equipment for providing the general radiocommunications required by Pt.4 Ch.12 Sec.1 B100 (1.8) is not to be considered as making a ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided the ship is capable of performing all distress and safety functions.

C. Radio Personnel

C 100  Qualifications
101  Regulation 16
1  Every ship shall carry personnel qualified for distress and safety radiocommunication purposes to the satisfaction of the Administration. The personnel shall be holders of certificates specified in the Radio Regulations as appropriate, any one of whom shall be designated to have primary responsibility for radiocommunications during distress incidents.
2  In passenger ships, at least one person qualified in accordance with paragraph 1 shall be assigned to perform only radiocommunication duties during distress incidents.
(SOLAS reg. IV/16)

D. Radio Records

D 100  Regulation 17
101  A record shall be kept, to the satisfaction of the Administration 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.
SECTION 6
MACHINERY OPERATION

A. General

A 100 Application

101 This section covers regulations dealing with the operation of machinery (including electrical installations and instrumentation) as given in SOLAS Ch. II-1.

A 200 Scope

201 Operational regulations covered by this section are considered outside the scope of classification. They are given as guidance to owners and masters in Appendix D.
SECTION 7
OIL POLLUTION PREVENTION

A. Classification

A 100 General

101 This section covers regulations dealing with the operation of ships to prevent pollution from oil as given in parts of MARPOL 73/78, Annex I including amendments adopted by the Marine Environment Protection Committee of IMO. Text quoted from MARPOL 73/78 is printed in italics.

102 Operational regulations for reference are given in Appendix E.

103 References to other parts of the rules:
For all ships:
Pt.4 Ch.6 Sec.4 Piping Systems
Pt.6 Ch.1 Sec.6 Additional Oil Pollution Prevention Measures - Fuel Oil Systems

For Oil Carriers (Pt.5 Ch.3):
Sec. 3 Damage Stability and Ship Arrangement
Sec. 4 Piping System in Cargo Area
Sec. 9 Instrumentation and Automation
Sec. 10 Ships for Alternate Carriage of Oil Cargo and Dry Cargo
Sec. 14 Offshore Loading Arrangement.

B. Control of Operational Pollution

B 100 General

101 For control of discharge of oil (Regulation 9), methods for prevention of discharge from ships operating in special areas (Regulation 10) with exceptions (Regulation 11), see Appendix E.

B 200 Segregation of oil and water ballast and carriage of oil in forepeak tanks (Regulation 14)

(1) Except as provided in paragraph (2) of this Regulation, in new ships of 4,000 gross tonnage and above other than oil tankers, and in new oil tankers of 150 gross tonnage and above, no ballast water shall be carried in any oil fuel tank.

(2) Where abnormal conditions or the need to carry large quantities of oil fuel render it necessary to carry ballast water which is not a clean ballast in any oil fuel tank, such ballast water shall be discharged to reception facilities or into the sea in compliance with Regulation 9 (Appendix E, C100) using the equipment specified in Regulation 16(2) (See Pt.4 Ch.6 Sec.4 M) of this Annex, and an entry shall be made in the Oil Record Book to this effect.

IMO interpretation:

1) The phrase «large quantities of oil fuel» in Regulation 14(2) was formulated in drafting MARPOL 73/78 to take account of those ships which are required to stay at sea for extended periods because of the particular nature of their operation and trade. Under the circumstances considered these ships would be required to fill their empty fuel tanks with water ballast in order to maintain sufficient stability and safe navigation conditions.

2) Such ships may include inter alia certain large fishing vessels or ocean-going tugs. Certain other types of ships which for reason of safety, such as stability, may be required to carry ballast in oil fuel tanks may also be included in this category.

(3) All other ships shall comply with the requirements of paragraph (1) of this Regulation as far as reasonable and practicable.

IMO interpretation:

1) The phrase “all other ships” in Regulation 14(3) should include:
   1.1 new ships other than oil tankers of less than 4,000 gross tonnage;
   1.2 new oil tankers of less than 150 gross tonnage; and
   1.3 all existing ships irrespective of tonnage.

2) When the separation of fuel oil tanks and water ballast tanks is unreasonable or impracticable for ships mentioned in paragraph above, ballast water may be carried in fuel oil tanks, provided that such ballast water is discharged into the sea in compliance with Regulation 9(1)(b), 10(2) or 10(3) or into reception facilities in compliance with Regulation 10(4) (See B100 and 200).

(4) In a ship of 400 gross tonnage and above, for which the building contract is placed after 1 January 1982 or, in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 1 July 1982, oil shall not be carried in a forepeak tank or a tank forward of the collision bulkhead.

(5) All ships other than those subject to paragraph (4) of this Regulation shall comply with the provisions of that paragraph, as far as is reasonable and practicable.

B 300 Oil Record Book (Regulation 20)

(1) Every oil tanker of 150 gross tonnage and above and every ship of 400 gross tonnage and above other than an oil tanker shall be provided with an Oil Record Book Part I (Machinery Space Operations). Every oil tanker of 150 gross tonnage and above shall also be provided with an Oil Record Book Part II (Cargo Ballast Operations). The Oil Record Book(s), whether as a part of the ship’s official log book or otherwise, shall be in the Form(s) specified in Appendix III to this Annex (for Part II see Ch.4 Sec.3 A300).

(2) The Oil Record Book shall be completed on each occasion, on a tank to tank basis if appropriate, whenever any of the following operations take place in the ship:

(a) for machinery space operations (all ships):
   (i) ballasting or cleaning of oil fuel tanks;
   (ii) discharge of dirty ballast or cleaning water from tanks referred to under (i) of the sub-paragraph;
   (iii) disposal of oily residues (sludge);
   (iv) discharge overboard or disposal otherwise of bilge water which has accumulated in machinery spaces.

(b) for cargo/ballast operations (oil tankers):
   (i) loading of oil cargo;
   (ii) internal transfer of oil cargo during voyage;
   (iii) unloading of oil cargo;
(iv) ballasting of cargo tanks and dedicated clean ballast tanks;
(v) cleaning of cargo tanks including crude oil washing;
(vi) discharge of ballast except from segregated ballast tanks;
(vii) discharge of water from slop tanks;
(viii) closing of all applicable valves or similar devices after slop tank discharge operations;
(ix) closing of valves necessary for isolation of dedicated clean ballast tanks from cargo and stripping lines after slop tank discharge operations;
(x) disposal of residues.

(3) In the event of such discharge of oil or oily mixture as is referred to in Regulation 11 (Appendix E, C300) of this Annex or in the event of accidental or other exceptional discharge of oil not excepted by that Regulation, a statement shall be made in the Oil Record Book of the circumstances of, and the reasons for, the discharge.

(4) Each operation described in paragraph (2) of this Regulation shall be fully recorded without delay in the Oil Record Book so that all the entries in the book appropriate to that operation are completed. Each completed operation shall be signed by the officer or officers in charge of the operations concerned and each completed page shall be signed by the master of the ship. The entries in the Oil Record Book shall be in an official language of the State whose flag the ship is entitled to fly, and, for ships holding an International Oil Pollution Prevention Certificate, in English or French. The entries in an official national language of the State whose flag the ship is entitled to fly shall prevail in case of a dispute or discrepancy.

(5) The Oil Record Book shall be kept in such a place as to be readily available for inspection at all reasonable times and, except in the case of unmanned ships under tow, shall be kept on board the ship. It shall be preserved for a period of three years after the last entry has been made.

(6) The competent authority of the Government of a Party to the Convention may inspect the Oil Record Book on board any ship to which this Annex applies while the ship is in its port or off-shore terminals and may make a copy of any entry in that book and may require the Master of the ship to certify that the copy is a true copy of such entry. Any copy so made which has been certified by the Master of the ship as a true copy of an entry in the ship's Oil Record Book shall be made admissible in any judicial proceedings as evidence of the facts stated in the entry. The inspection of an Oil Record Book and the taking of a certified copy by the competent authority under this paragraph shall be performed as expeditiously as possible without causing the ship to be unduly delayed.

(7) For oil tankers or less than 150 gross tonnage operating in accordance with Regulation 15(4) of this Annex (See Pt.5 Ch.3 Sec.3) an appropriate Oil Record Book should be developed by the Administration.

The Oil Record Book and entries performed will be checked at periodical surveys.

**B 400 Shipboard Oil Pollution Emergency Plan (SOPEP) - (Regulation 26)**

(1) Every oil tanker of 150 gross tonnage and above and every ship other than an oil tanker of 400 gross tonnage and above shall carry on board a Shipboard Oil Pollution Emergency Plan approved by the Administration.

Such a plan shall be in accordance with Guidelines developed by IMO in Resolution MEPC.54(32).
SECTION 8
FIRE CONTROL

A. General

A 100 Application

101 This section covers regulations dealing with the operation of the fire control system as given in SOLAS Ch. II-2 Part A.

B. Fire Extinguishers

B 100 Periodic testing and availability

101 Fire extinguishing appliances are to be kept in good order and available for immediate use at all times during the voyage.

C. Fire Detection Systems

C 100 Function tests

101 The detection system is to be periodically tested to the satisfaction of the Society by means of equipment producing hot air at the appropriate temperature, or smoke or aerosol particles having the appropriate range of density or particle size, or other phenomena associated with incipient fires to which the detector is designed to respond. All detectors are to be of a type such that they can be tested for correct operation and restored to normal surveillance without the renewal of any component.

D. Fire Control Plans

D 100 Alterations

101 Fire control plans and booklets as required in Pt.4 Ch.10 Sec.14 are to be kept up to date. Any alterations are to be recorded thereon as soon as practicable.

E. Fire Drills

E 100 General

101 Fire drills are to be conducted in accordance with the provisions of Sec.2 C100.
APPENDIX A
GUIDANCE FOR OPERATION, NAVIGATION

A. Responsibilities of the Master and Governments

A 100 Life-saving signals (Regulation 8)

101 Contracting Governments undertake to arrange that life-saving signals are used by search and rescue facilities engaged in search and rescue operations when communicating with ships or persons in distress.

(SOLAS reg. V/8)

Guidance note:
Such life-saving signals are described in the Merchant Ship Search and Rescue Manual (MERSAR) (resolution A.229(VII), as amended), the IMO Search and Rescue Manual (IMOSAR) (resolution A.439(XI), as amended) and illustrated in the International Code of Signals as amended pursuant to resolution A.80(IV).

---end-of-Guidance-note---

A 200 Ships’ routeing (Regulation 10)

201 General

1 Ships’ routeing systems contribute to safety of life at sea, safety and efficiency of navigation and/or protection of the marine environment. Ships’ routeing systems are recommended for use by, and may be made mandatory for, all ships, certain categories of ships or ships carrying certain cargoes, when adopted and implemented in accordance with the guidelines and criteria developed by the Organization.*

Guidance note:
* Refer to the General Provisions on Ships’ Routeing adopted by the Organization by resolution A.572(14), as amended.

---end-of-Guidance-note---

2 The Organization is recognized as the only international body for developing guidelines, criteria and regulations on an international level for ships’ routeing systems. Contracting Governments shall refer proposals for the adoption of ships’ routeing systems to the Organization. The Organization will collate and disseminate to Contracting Governments all relevant information with regard to any adopted ships’ routeing systems.

3 The initiation of action for establishing a ships’ routeing system is the responsibility of the Government or Governments concerned. In developing such systems for adoption by the Organization, the guidelines and criteria developed by the Organization shall be taken into account.

4 Ships’ routeing systems should be submitted to the Organization for adoption. However, a Government or Governments implementing ships’ routeing systems not intended to be submitted to the Organization for adoption or which have not been adopted by the Organization are encouraged to take into account, wherever possible, the guidelines and criteria developed by the Organization.*

Guidance note:
* Refer to the General Provisions on Ships’ Routeing adopted by the Organization by resolution A.572(14), as amended.

---end-of-Guidance-note---

5 Where two or more Governments have a common interest in a particular area, they should formulate joint proposals for the delineation and use of a routeing system therein on the basis of an agreement between them. Upon receipt of such proposal and before proceeding with consideration of it for adoption, the Organization shall ensure details of the proposal are disseminated to the Governments which have a common interest in the area, including countries in the vicinity of the proposed ships’ routeing system.

6 Contracting Governments shall adhere to the measures adopted by the Organization concerning ships’ routeing. They shall promulgate all information necessary for the safe and effective use of adopted ships’ routeing systems. A Government or Governments concerned may monitor traffic in those systems. Contracting Governments shall do everything in their power to secure the appropriate use of ships’ routeing systems adopted by the Organization.

7 A ship shall use a mandatory ships’ routeing system adopted by the Organization as required for its category or cargo carried and in accordance with the relevant provisions in force unless there are compelling reasons not to use a particular ships’ routeing system. Any such reason shall be recorded in the ship’s log.

8 Mandatory ships’ routeing systems shall be reviewed by the Contracting Government or Governments concerned in accordance with the guidelines and criteria developed by the Organization.*

Guidance note:
* Refer to the General Provisions on Ships’ Routeing adopted by the Organization by resolution A.572(14), as amended.

---end-of-Guidance-note---

A 300 Maintenance of equipment (Regulation 16)

301 General

1 The Administration shall be satisfied that adequate arrangements are in place to ensure that the performance of the equipment required by this chapter is maintained.

2 Except as provided in regulations I/7(b)(ii), I/8 and I/9, while all reasonable steps shall be taken to maintain the equipment required by this chapter in efficient working order, malfunctions of that equipment shall not be considered as making the ship unserviceable or as a reason for delaying the ship in ports where repair facilities are not readily available, provided suitable arrangements are made by the master to take the inoperative equipment or unavailable information into account in planning and executing a safe voyage to a port where repairs can take place.

(SOLAS reg. V/10)

A 400 Use of heading and or track control systems (Regulation 24)

401 General

1 In areas of high traffic density, in conditions of restricted visibility and in all other hazardous navigational situations where heading and/or track control systems are in use, it shall be possible to establish manual control of the ship’s steering immediately.

2 In circumstances as above, the officer in charge of the navigational watch shall have available without delay the services of a qualified helmsperson who shall be ready at all times to take over steering control.

3 The change-over from automatic to manual steering and vice versa shall be made by or under the supervision of a responsible officer.

4 The manual steering shall be tested after prolonged use of heading and/or track control systems, and before entering area...
as where navigation demands special caution.
(SOLAS reg. V/24)

A 500 Danger messages (Regulation 31)

501 General

1 The master of every ship which meets with dangerous ice, a dangerous derelict, or any direct danger to navigation, or a tropical storm, or encounters sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received, is bound to communicate the information by all means at his disposal to ships in the vicinity, and also to the competent authorities. The form in which the information is sent is not obligatory. It may be transmitted either in plain language (preferably English) or by means of the International Code of Signals.

2 Each Contracting Government will take all steps necessary to ensure that when intelligence of any of the dangers specified in paragraph 1 is received, it will be promptly brought to the knowledge of those concerned and communicated to other interested Governments.

3 The transmission of messages respecting the dangers specified is free of cost to the ships concerned.

4 All radio messages issued under paragraph 1 shall be preceded by the safety signal, using the procedure as prescribed by the Radio Regulations as defined in regulation IV/2.

(SOLAS reg. V/31) (Pt.4 Ch.12 Sec.1 A500).

A 600 Information required in danger messages (Regulation 32)

601 The following information is required in danger messages:

1 Ice, derelicts and other direct dangers to navigation:
   .1 The kind of ice, derelict or danger observed.
   .2 The position of the ice, derelict or danger when last observed.
   .3 The time and date (Universal Co-ordinated Time) when the danger was last observed.

2 Tropical cyclones (storms)*
   .1 A statement that a tropical cyclone has been encountered. This obligation should be interpreted in a broad spirit, and information transmitted whenever the master has good reason to believe that a tropical cyclone is developing or exists in the neighbourhood.
   .2 Time, date (Universal Co-ordinated Time) and position of ship when the observation was taken.
   .3 As much of the following information as is practicable should be included in the message:
      — barometric pressure **, preferably corrected (stating millibars, millimetres, or inches, and whether corrected or uncorrected);
      — barometric tendency (the change in barometric pressure during the past three hours);
      — true wind direction;
      — wind force (Beaufort scale);
      — state of the sea (smooth, moderate, rough, high);
      — swell (slight, moderate, heavy) and the true direction from which it comes. Period or length of swell (short, average, long) would also be of value;
      — true course and speed of ship.

Guidance note:
*The term tropical cyclone is the generic term used by national meteorological services of the World Meteorological Organisation. The term hurricane, typhoon, cyclone, severe tropical storm, etc., may also be used, depending on the geographical location.

---end---of---Guidance---note---

Subsequent observations

3 When a master has reported a tropical cyclone or other dangerous storm, it is desirable but not obligatory, that further observations be made and transmitted hourly, if practicable, but in any case at intervals of not more than 3 hours, so long as the ship remains under the influence of the storm.

4 Winds of force 10 or above on the Beaufort scale for which no storm warning has been received. This is intended to deal with storms other than the tropical cyclones referred to in paragraph 2; when such a storm is encountered, the message should contain similar information to that listed under the paragraph but excluding the details concerning sea and swell.

5 Sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures:
   .1 Time and date (Universal Co-ordinated Time).
   .2 Air temperature.
   .3 Sea temperature (if practicable).
   .4 Wind force and direction.

(SOLAS reg. V/32)

Guidance note:
Examples of danger messages are included in Appendix B.

---end---of---Guidance---note---

A 700 Safe navigation and avoidance of dangerous situations (Regulation 34)

701 General

1 Prior to proceeding to sea, the master shall ensure that the intended voyage has been planned using the appropriate nautical charts and nautical publications for the area concerned, taking into account the guidelines and recommendations developed by the Organization.

Guidance note:
Refer to the Guidelines for Voyage Planning, adopted by the Organisation by resolution A.893(21).

---end---of---Guidance---note---

2 The voyage plan shall identify a route which:
   .1 takes into account any relevant ships’ routing systems;
   .2 ensures sufficient sea room for the safe passage of the ship throughout the voyage;
   .3 anticipates all known navigational hazards and adverse weather conditions; and
   .4 takes into account the marine environmental protection measures that apply, and avoids as far as possible actions and activities which could cause damage to the environment.

3 The owner, the charterer, or the company, as defined in regulation IX/1, operating the ship or any other person, shall not prevent or restrict the master of the ship from taking or executing any decision which, in the master’s professional judgement, is necessary for safe navigation and protection of the marine environment.

(SOLAS reg. V/34)

B. Responsibilities of Governments

B 100 Scope

101 The text of this Appendix has been included for reference and guidance only.
B 200 Navigational warnings (Regulation 4)

201 Each Contracting Government shall take all steps necessary to ensure that, when intelligence of any dangers is received from whatever reliable source, it shall be promptly brought to the knowledge of those concerned and communicated to other interested Governments. 

(SOLAS reg. V/4)

Guidance note:
* Refer to the Guidance on the IMO/IHO World-Wide Nautical Warning Service adopted by the Organisation by resolution A.706(17), as amended.

B 300 Meteorological services and warnings (Regulation 5)

301 General

1 Contracting Governments undertake to encourage the collection of meteorological data by ships at sea and to arrange for their examination, dissemination and exchange in the manner most suitable for the purpose of aiding navigation. *Administrations shall encourage the use of meteorological instruments of a high degree of accuracy, and shall facilitate the checking of such instruments upon request. Arrangements may be made by appropriate national meteorological services for this checking to be undertaken, free of charge to the ship.

Guidance note:
* Refer to the Recommendation on weather routing adopted by the Organisation by resolution A.528(13).

2 In particular, Contracting Governments undertake to carry out, in co-operation, the following meteorological arrangements:

.1 to warn ships of gales, storms and tropical cyclones by the issue of information in text and, as far as practicable, graphic form, using the appropriate shore-based facilities for terrestrial and space radiocommunications services.

.2 to issue, at least twice daily, by terrestrial and space radiocommunication services *, as appropriate, weather information suitable for shipping containing data, analyses, warnings and forecasts of weather, waves and ice. Such information shall be transmitted in text and, as far as practicable, graphic form including meteorological analysis and prognoses transmitted by facsimile or in digital form for reconstitution on board the ship’s data processing system.

Guidance note:
See regulations IV/7.1.4 and IV/7/1.5.

.3 to prepare and issue such publications as may be necessary for the efficient conduct of meteorological work at sea and to arrange, if practicable, for the publication and making available of daily weather charts for the information of departing ships.

.4 to arrange for a selection of ships to be equipped with tested marine meteorological instruments (such as a barometer, a barograph, a psychrometer, and suitable apparatus for measuring sea temperature) for use in this service, and to take, record and transmit meteorological observations at the main standard times for surface synoptic observations (i.e. at least four times daily, whenever circumstances permit) and to encourage other ships to take, record and transmit observations in a modified form, particularly when in areas where shipping is sparse.

.5 to encourage companies to involve as many of their ships as practicable in the making and recording of weather observations at the main standard times for surface synoptic observations (i.e. at least four times daily, whenever circumstances permit) and to encourage other ships to take, record and transmit observations in a modified form, particularly when in areas where shipping is sparse.

.6 to arrange for the reception and transmission of weather messages from and to ships, using the appropriate shore-based facilities for terrestrial and space radiocommunications services.

.7 when in the vicinity of a tropical cyclone, or of a suspected tropical cyclone, ships should be encouraged to take and transmit their observations at more frequent intervals whenever practicable, bearing in mind navigational preoccupations of ships’ officers during storm conditions.

.8 to arrange for the reception and transmission of weather messages from and to ships, using the appropriate shore-based facilities for terrestrial and space radiocommunications services.

.9 to encourage masters to inform ships in the vicinity and also shore stations whenever they experience a wind speed of 50 knots or more (force 10 on the Beaufort scale).

.10 to endeavour to obtain a uniform procedure in regard to the international meteorological services already specified, and as far as practicable, to conform to the technical regulations and recommendations made by the World Meteorological Organization, to which Contracting Governments may refer, for study and advice, any meteorological question which may arise in carrying out the present Convention.

3 The information provided for in this regulation shall be furnished in a form for transmission and be transmitted in the order of priority prescribed by the Radio Regulations. During transmission "to all stations" of meteorological information, forecasts and warnings, all ship stations must conform to the provisions of the Radio Regulations.

4 Forecasts, warnings, synoptic and other meteorological data intended for ships shall be issued and disseminated by the national meteorological service in the best position to serve various coastal and high seas areas, in accordance with mutual arrangements made by Contracting Governments, in particular as defined by the World Meteorological Organization’s System for the Preparation and Dissemination of Meteorological Forecasts and Warnings for the High Seas under the Global Maritime Distress and Safety System (GMDSS).

(SOLAS reg. V/5)

B 400 Ice patrol service (Regulation 6)

401 General

1 The Ice Patrol contributes to safety of life at sea, safety and efficiency of navigation and protection of the marine environment in the North Atlantic. Ships transiting the region of icebergs guarded by the Ice Patrol during the ice season are required to make use of the services provided by the Ice Patrol.

2 The Contracting Governments undertake to continue an ice patrol and a service for study and observation of ice conditions in the North Atlantic. During the whole of the ice season, i.e. for the period from February 15th through July 1st of each year, the Governments are required to make use of the services provided by the Ice Patrol.

3 Ships and aircraft used for the ice patrol service and the study and observation of ice conditions may be assigned other duties provided that such other duties do not interfere with the primary purpose or increase the cost of this service.

4 The Government of the United States of America agrees to continue the overall management of the ice patrol service and the study and observation of ice conditions, including the dissemination of information therefrom.

5 The terms and conditions governing the management, operation and financing of the Ice Patrol are set forth in the Rules for the management, operation and financing of the North Atlantic Ice Patrol appended to this chapter which shall form an integral part of this chapter.

6 If, at any time, the United States and/or Canadian Governments should desire, to discontinue providing these services, it...
may do so and the Contracting Governments shall settle the question of continuing these services in accordance with their mutual interests. The United States and/or Canadian Governments shall provide 18 months written notice to all Contracting Governments whose ships entitled to fly their flag and whose ships registered in territories to which those Contracting Governments have extended this regulation benefit from these services before discontinuing providing these services.

(SOLAS reg. V/6)

B 500  Search and rescue services (Regulation 7)

501  General

1  Each Contracting Government undertakes to ensure that necessary arrangements are made for distress communication and co-ordination in their area of responsibility and for the rescue of persons in distress at sea around its coasts. These arrangements shall include the establishment, operation and maintenance of such search and rescue facilities as are deemed practicable and necessary, having regard to the density of the seagoing traffic and the navigational dangers and shall, so far as possible, provide adequate means of locating and assisting such persons.*

Guidance note:

* Refer to the appropriate resolutions and recommendations adopted by the International Hydrographic Organization.

(SOLAS reg. V/7)

B 600  Hydrographic services (Regulation 9)

601  General

1  Contracting Governments undertake to arrange for the collection and compilation of hydrographic data and the publication, dissemination and keeping up to date of all nautical information necessary for safe navigation.

2  In particular, Contracting Governments undertake to co-operate in carrying out, as far as possible, the following nautical and hydrographic services, in the manner most suitable for the purpose of aiding navigation:

.1 to ensure that hydrographic surveying is carried out, as far as possible, adequate to the requirements of safe navigation;

.2 to prepare and issue nautical charts, sailing directions, lists of lights, tide tables and other nautical publications, where applicable, satisfying the needs of safe navigation;

.3 to promulgate notices to mariners in order that nautical charts and publications are kept, as far as possible, up to date; and

.4 to provide data management arrangements to support these services.

3  Contracting Governments undertake to ensure the greatest possible uniformity in charts and nautical publications and to take into account, whenever possible, relevant international resolutions and recommendations.*

Guidance note:

* Refer to the appropriate resolutions and recommendations adopted by the International Hydrographic Organization.

---end---of---Guidance---note---

4  Contracting Governments undertake to co-ordinate their activities to the greatest possible degree in order to ensure that hydrographic and nautical information is made available on a world-wide scale as timely, reliably, and unambiguously as possible.

(SOLAS reg. V/9)

B 700  Ship reporting systems (Regulation 11) *

701  General

1  Ship reporting systems contribute to safety of life at sea, safety and efficiency of navigation and/or protection of the marine environment. A ship reporting system, when adopted and implemented in accordance with the guidelines and criteria developed by the Organization** pursuant to this regulation, shall be used by all ships, or certain categories of ships or ships carrying certain cargoes in accordance with the provisions of each system so adopted.

Guidance note:

**Refer to the guidelines and criteria adopted by the Maritime Safety Committee of the Organization by resolution MSC.43(64), as amended by resolution MSC.111(73). Refer also to the General principles for ship reporting systems and ship reporting requirements, including guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants, adopted by the Organization by resolution A.851(20).

---end---of---Guidance---note---

2  The Organization is recognized as the only international body for developing guidelines, criteria and regulations on an international level for ship reporting systems. Contracting Governments shall refer proposals for the adoption of ship reporting systems to the Organization. The Organization will collate and disseminate to Contracting Governments all relevant information with regard to any adopted ship reporting system.

3  The initiation of action for establishing a ship reporting system is the responsibility of the Government or Governments concerned. In developing such systems provision of the guidelines and criteria developed by the Organization* shall be taken into account.

4  Ship reporting systems not submitted to the Organization for adoption do not necessarily need to comply with this regulation. However, Governments implementing such systems are encouraged to follow, wherever possible, the guidelines and criteria developed by the Organization.* Contracting Governments may submit such systems to the Organization for recognition.

5  Where two or more Governments have a common interest in a particular area, they should formulate proposals for a co-ordinated ship reporting system on the basis of agreement between them. Before proceeding with a proposal for adoption of a ship reporting system, the Organization shall disseminate details of the proposal to those Governments which have a common interest in the area covered by the proposed system. Where a co-ordinated ship reporting system is adopted and established, it shall have uniform procedures and operations.

6  After adoption of a ship reporting system in accordance with this regulation, the Government or Governments concerned shall take all measures necessary for the promulgation of any information needed for the efficient and effective use of the system. Any adopted ship reporting system shall have the capability of interaction and the ability to assist ships with information when necessary. Such systems shall be operated in accord---
Routines, Contracting Governments undertake to take into ac-

2 In order to obtain the greatest possible uniformity in aids to navigation with other Contracting Governments, such aids to navigation require.

3 Contracting Governments undertake to arrange for information relating to aids to navigation to be made available to all concerned. Changes in the transmissions of position-fixing systems which could adversely affect the performance of receivers fitted in ships shall be avoided as far as possible and only be affected after timely and adequate notice has been promulgated.

B 1000 Ships' manning (Regulation 14)

1001 General

1 Contracting Governments undertake, each for its national ships, to maintain, or, if it is necessary, to adopt, measures for the purpose of ensuring that, from the point of view of safety of life at sea, all ships shall be sufficiently and efficiently manned.

* Guidance note:
* Refer to the Principles of Safe Manning adopted by the Organization by resolution A.890(21).

2 Every ship to which chapter I applies shall be provided with an appropriate minimum safe manning document or equivalent issued by the Administration as evidence of the minimum safe manning considered necessary to comply with the provisions of paragraph 1.

3 On all ships, to ensure effective crew performance in safety matters, a working language shall be established and recorded in the ship's log-book. The company, as defined in regulation IX/1, or the master, as appropriate, shall determine the appropriate working language. Each seafarer shall be required to understand and, where appropriate, give orders and instructions and to report back in that language. If the working language is not an official language of the State whose flag the ship is entitled to fly, all plans and lists required to be posted shall include a translation into the working language.

4 On ships to which chapter I applies, English shall be used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications as well as for communications on board between the pilot and bridge watchkeeping personnel, unless those directly involved in the communication speak a common language other than English.

(SOLAS reg. V/14)

B 1100 Rules for the Management, Operation and Financing of the North Atlantic Ice Patrol (Appendix to SOLAS Chapter V)

1101 General

1 In these Rules:

.1 Ice season means the annual period between February 15 and July 1.

.2 Region of icebergs guarded by the ice patrol means the south-eastern, southern and south-western limits of the region of icebergs in the vicinity of the Grand Banks of Newfoundland.

.3 Routes passing through regions of icebergs guarded by the ice Patrol means:

.3.1 routes between Atlantic Coast ports of Canada (including inland ports approached from the North Atlantic through the Gut of Canso and Cabot Straits) and ports of Europe, Asia or Africa approached from the North Atlantic

---End of Guidance note---
through or north of the Straits of Gibraltar (except routes which pass south of the extreme limits of ice of all types).

3.2 Routes via Cape Race, Newfoundland between Atlantic Coast ports of Canada (including inland ports approached from the North Atlantic through the Gut of Canso and Cabot Straits) west of Cape Race, Newfoundland and Atlantic Coast ports of Canada north of Cape Race, Newfoundland.

3.3 Routes between Atlantic and Gulf Coast ports of the United States of America (including inland ports approached from the North Atlantic through the Gut of Canso and Cabot straits) and ports of Europe, Asia or Africa approached from the North Atlantic through or north of the Straits of Gibraltar (except routes which pass south of the extreme limits of ice of all types).

3.4 Routes via Cape Race, Newfoundland between Atlantic and Gulf Coast ports of the United States of America (including inland ports approached from the North Atlantic through the Gut of Canso and Cabot Straits) and Atlantic Coast ports of Canada north of Cape Race, Newfoundland.

4 Extreme limits of ice of all types in the North Atlantic Ocean is defined by a line connecting the following points:

- A – 42° 23'.00 N, 59° 25'.00 W
- B – 41° 23'.00 N, 57° 00'.00 W
- C – 40° 47'.00 N, 55° 00'.00 W
- D – 40° 07'.00 N, 53° 00'.00 W
- E – 39° 18'.00 N, 49° 39'.00 W
- F – 38° 00'.00 N, 47° 35'.00 W
- G – 37° 41'.00 N, 46° 40'.00 W
- H – 38° 00'.00 N, 45° 33'.00 W
- I – 39° 05'.00 N, 43° 00'.00 W
- J – 39° 49'.00 N, 41° 00'.00 W
- K – 40° 39'.00 N, 39° 00'.00 W
- L – 41° 19'.00 N, 38° 00'.00 W
- M – 43° 00'.00 N, 37° 27'.00 W
- N – 44° 00'.00 N, 37° 29'.00 W
- O – 46° 00'.00 N, 37° 55'.00 W
- P – 48° 00'.00 N, 38° 28'.00 W
- Q – 50° 00'.00 N, 39° 07'.00 W
- R – 51° 25'.00 N, 39° 45'.00 W.

5 Managing and operating means maintaining, administering and operating the Ice Patrol, including the dissemination of information received therefrom.

6 Contributing Government means a Contracting Government undertaking to contribute to the costs of the ice patrol service pursuant to these Rules.

2 Each Contracting Government specially interested in these services whose ships pass through the region of icebergs during the ice season undertakes to contribute to the Government of the United States of America its proportionate share of the costs for the management and operation of the ice patrol service. The contribution to the Government of the United States of America shall be based on the ratio which the average annual gross tonnage of that contributing Government’s ships passing through the region of icebergs guarded by the Ice Patrol during the previous three ice seasons bears to the combined average annual gross tonnage of all ships that passed through the region of icebergs guarded by the Ice Patrol during the previous three ice seasons.

3 All contributions shall be calculated by multiplying the ratio described in paragraph 2 by the average actual annual cost incurred by the Governments of the United States of America and Canada of managing and operating ice patrol services during the previous three years. This ratio shall be computed annually, and shall be expressed in terms of a lump sum per-annum fee.

4 Each of the contributing Governments has the right to alter or discontinue its contribution, and other interested Governments may undertake to contribute to the expense. The contributing Government which avails itself of this right will continue to be responsible for its current contribution up to 1 September following the date of giving notice of intention to alter or discontinue its contribution. To take advantage of the said right it must give notice to the managing Government at least six months before the said 1 September.

5 Each contributing Government shall notify the Secretary-General of its undertaking pursuant to paragraph 2, who shall notify all Contracting Governments.

6 The Government of the United States of America shall furnish annually to each contributing Government a statement of the total cost incurred by the Governments of the United States of America and Canada of managing and operating the Ice Patrol for that year and of the average percentage share for the past three years of each contributing Government.

7 The managing government shall publish annual accounts including a statement of costs incurred by the governments providing the services for the past three years and the total gross tonnage using the service for the past three years. The accounts shall be publicly available. Within three months after having received the cost statement, contributing Governments may request more detailed information regarding the costs incurred in managing and operating the Ice Patrol.

8 These Rules shall be operative beginning with the ice season of 2002.

(SOLAS Appendix to SOLAS Chapter V)
APPENDIX B
EXAMPLES OF DANGER MESSAGES, NAVIGATION

A. Examples of Danger Messages (Regulation 32)

A 100  Examples of danger messages

Ice
TTT ICE. LARGE BERG SIGHTED IN 4506 N, 4410W, AT 0800 UTC. MAY 15.

Derelicts
TTT DERELICT. OBSERVED DERELICT ALMOST SUBMERGED IN 4006 N, 1243 W, AT 1630 UTC. APRIL 21.

Danger to navigation
TTT NAVIGATION. ALPHA LIGHTSHIP NOT ON STATION. 1800 UTC. JANUARY 3.

Tropical cyclone
TTT STORM. 0030 UTC. AUGUST 18, 2004 N, 11354 E. BAROMETER CORRECTED 994 MILLIBARS, TENDENCY DOWN 6 MILLIBARS. WIND NW, FORCE 9, HEAVY SQUALLS. HEAVY EASTERLY SWELL. COURSE 067, 5 KNOTS.
TTT STORM. APPEARANCES INDICATE APPROACH OF HURRICANE. 1300 UTC. SEPTEMBER 14. 2200 N, 7236 W. BAROMETER CORRECTED 29.64 INCHES. TENDENCY DOWN .015 INCHES. WIND NE, FORCE 8, FREQUENT RAIN SQUALLS. COURSE 035, 9 KNOTS.
TTT STORM. CONDITIONS INDICATE INTENSE CYCLONE HAS FORMED. 0200 UTC. MAY 4. 4203 E. BAROMETER UNCORRECTED 753 MILLIMETRES, TENDENCY DOWN 5 MILLIMETRES. WIND S BY W, FORCE 5. COURSE 300, 8 KNOTS.
TTT STORM. TYPHOON TO SOUTHEAST. 0300 UTC. JUNE 12. 1812 N, 12605 E. BAROMETER FALLING RAPIDLY. WIND INCREASING FROM N.
TTT STORM. WIND FORCE 11, NO STORM WARNING RECEIVED. 0300 UTC. MAY 4. 4830 N, 30 W. BAROMETER CORRECTED 983 MILLIBARS, TENDENCY DOWN 4 MILLIBARS. WIND SW, FORCE 11 VEERING. COURSE 260, 6 KNOTS.

Icing
TTT EXPERIENCING SEVERE ICING. 1400 UTC. MARCH 2. 69 N, 10 W. AIR TEMPERATURE 18°F (-7.8°C). SEA TEMPERATURE 29°F (-1.7°C). WIND NE, FORCE 8.

(SOLAS reg. V/32 Examples)
APPENDIX C
GUIDANCE FOR OPERATION, RADIO COMMUNICATION, GMDSS

A. General

A 100 Scope
101 The text of this Appendix is taken from SOLAS Ch. IV and has been included for reference and guidance only.

B. Watches

B 100 Regulation 12

1 Every ship, while at sea, shall maintain a continuous watch:
   1.1 on VHF DSC channel 70, if the ship, in accordance with the requirements of regulation 7.1.2 (Pt.4 Ch.12 Sec.1 B300), is fitted with a VHF radio installation;
   1.2 on the distress and safety DSC frequency 2,187.5 kHz, if the ship, in accordance with the requirements of regulation 9.1.2 or 10.1.3 (Pt.4 Ch.12 Sec.1 B500 or B600), is fitted with an MF radio installation;
   1.3 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 ship, if the ship, in accordance with the requirements of regulation 10.2.2 or 11.1 (Pt.4 Ch.12 Sec.1 B600 or B700), is fitted with an MF/HP radio installation. This watch may be kept by means of a scanning receiver;
   1.4 for satellite shore-to-ship distress alerts, if the ship, in accordance with the requirements of regulation 10.1.1 (Pt.4 Ch.12 Sec.1 B600), is fitted with an INMARSAT ship earth station.

2 Every ship, while at sea, shall 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 ship is navigating.

3 Until 1 February 1999 or until such other date as may be determined by the Maritime Safety Committee, every ship while at sea shall maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.

4 Until 1 February 1999 or until such other date as may be determined by the Maritime Safety Committee, every ship required to carry a radiotelephone watch receiver shall maintain, while at sea, a continuous watch on the radiotelephone distress frequency 2,182 kHz. This watch shall be kept at the position from which the ship is normally navigated.

C. Undertaking by Contracting Governments

C 100 Provision of radiocommunication services. Regulation 5

1 Each Contracting Government undertakes to make available, as it deems practical and necessary either individually or in cooperation with other Contracting Governments, appropriate shore-based facilities for space and terrestrial radiocommunication services having due regard to the recommendations of the Organization. *

Guidance note:

1 Each Contracting Government is not required to provide all radiocommunication services.

2 The requirements should be specified for shore-based facilities to cover the various sea areas.

---end---of---Guidance---note---

These services are:

1.1 a radiocommunication service utilizing geostationary satellites in the Maritime Mobile-Satellite Service;
1.2 a radiocommunication service utilizing polar orbiting satellites in the Mobile-Satellite Service;
1.3 the Maritime Mobile Service in the bands between 156 MHz and 174 MHz;
1.4 the Maritime Mobile Service in the bands between 4,000 kHz and 27,500 kHz; and
1.5 the Maritime Mobile Service in the bands between 415 kHz and 535 kHz and between 1,605 kHz and 4,000 kHz.

2 Each Contracting Government undertakes to provide the Organization with pertinent information concerning the shore-based facilities in the Maritime Mobile Service, Mobile-Satellite Service and Maritime Mobile-Satellite Service, established for sea areas which it has designated off its coasts.

* Reference is made to resolution A.704(17). Provision of radio services for the global maritime distress and safety system (GMDSS).
APPENDIX D
GUIDANCE FOR OPERATION, MACHINERY

A. General

A 100 Scope
101 The text of this Appendix has been included for reference and guidance.

B. Electrical Installations

B 100 Emergency source of electrical power
101 Provisions are to be made for the periodic testing of the complete emergency system, including testing of automatic starting arrangements.

C. Periodically Unattended Machinery Spaces

C 100 Inspection and routine tests
101 Satisfactory arrangements are to be made for regular inspections and routine tests to ensure continuous reliable operation.
APPENDIX E
OPERATIONAL REGULATIONS, OIL POLLUTION PREVENTION

A. General

A 100 Scope

101 The text of this Appendix has been included for reference and guidance.

102 The MARPOL text is printed in italics. IMO interpretations are printed in normal rule types.

103 If any parts of the text are subject to discussion or misunderstanding the MARPOL text shall prevail.

B. Terms and Definitions

B 100 Terms

101 Some terms and abbreviations used in the Marpol Regulations and Guidance Notes are defined as follows:

Convention (this Convention): MARPOL 73/78

Annex I, this Annex: Annex I to MARPOL 73/78 covering the Oil Pollution Prevention.

Annex II: Annex II to MARPOL 73/78 covering the Control of Pollution by Noxious Liquid Substances.


IOPP Certificate: International Oil Pollution Prevention Certificate.

SBT: Segregated ballast tanks

CBT: Dedicated clean ballast tanks

COW: Crude oil washing system

IGS: Inert gas systems

PL: Protective location of segregated ballast tanks

H: Date of entry into force of MARPOL 73/78.

102 «Oil mixture» means a mixture with any oil content.

103 «Oil fuel» means any oil used as fuel in connection with the propulsion and auxiliary machinery of the ship in which such oil is carried.

104 «Oil tanker» means a ship constructed or adapted primarily to carry oil in bulk in its cargo spaces and includes combination carriers and any «chemical tanker» as defined in Annex II of the present Convention when it is carrying a cargo or part cargo of oil in bulk.

IMO Interpretation:

A gas carrier as defined in Regulation 3.20 of Chapter II-1 of SOLAS 74 (as amended), when carrying a cargo or part cargo of oil in bulk, should be treated as an «oil tanker» as defined in Regulation 1(4).

105 «Combination carrier» means a ship designed to carry either oil or solid cargoes in bulk.

106 «New ship» means a ship:

(a) for which the building contract is placed after 31 December 1975; or

(b) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 30 June 1976; or

(c) the delivery of which is after 31 December 1979; or

(d) which has undergone a major conversion:

(i) for which the contract is placed after 31 December 1975; or

(ii) in the absence of a contract, the keel of which is laid or which is at a similar stage of construction after 30 June 1976; or

(iii) which is completed after 31 December 1979.

IMO Interpretation:

1) Regulations 1(6) and 1(26) defining «new ship» and «new oil tanker», respectively, should be construed to mean that a ship which falls into any one of the categories listed in sub-paragraphs (a) or (b) or (c) or (d)(i) or (ii) or (iii) of these paragraphs should be considered as a new ship or a new oil tanker, as appropriate.

2) For the purpose of defining «new» or «existing» ships under Regulations 1(6), 1(26) and 24, a ship for which the building contract (or keel laying) and delivery was scheduled before the dates specified in these Regulations, but which has been subject to delay in delivery beyond the specified date due to unforeseen circumstances beyond the control of the builder and the owner, may be accepted by the Administration as an «existing ship». The treatment of such ships should be considered by the Administration on a case by case basis, bearing in mind the particular circumstances.

3) It is important that ships delivered after the specified dates due to unforeseen delay and allowed to be treated as existing ships by the Administration, should also be accepted as such by Port States. In order to ensure this, the following practice is recommended to Administrations when considering an application for such a ship:

3.1 the Administration should thoroughly consider applications on a case by case basis, bearing in mind the particular circumstances. In doing so in the case of a ship built in a foreign country, the Administration may require a formal report from the authorities of the country in which the ship was built, stating that the delay was due to unforeseen circumstances.
circumstances beyond the control of the builder and the owner;
3.2 when a ship is treated as an existing ship upon such an application, the IOPP Certificate for the ship should be endorsed to indicate that the ship is accepted by the Administration as an existing ship; and
3.3 the Administration should report to the Organization on the identity of the ship and the grounds on which the ship has been accepted as an existing ship.

(7) «Existing ship» means a ship which is not a new ship.
(8)
(a) «Major conversion» means a conversion of an existing ship:
(i) which substantially alters the dimensions or carrying capacity of the ship; or
(ii) which changes the type of the ship; or
(iii) the intent of which in the opinion of the Administration is substantially to prolong its life; or
(iv) which otherwise so alters the ship that, if it were a new ship, it would become subject to relevant provisions of the present Convention not applicable to it as an existing ship.
(b) Notwithstanding the provisions of sub-paragraph (a) of this paragraph, conversion of an existing oil tanker of 20,000 tons deadweight and above to meet the requirements of Regulation 13 (Ch.4 Appendix B B100) of this Annex shall not be deemed to constitute a major conversion for the purposes of this Annex.
(c) Notwithstanding the provisions of subparagraph (a) of this paragraph, conversion of an existing oil tanker to meet the requirements of regulation 13F or 13G (Ch.4 Appendix B) of this Annex shall not be deemed to constitute a major conversion for the purpose of this Annex.

IMO Interpretation:
1) The deadweight to be used for determining the application of provisions of Annex I is the deadweight assigned to an oil tanker at the time of the assignment of the load lines. If the load lines are reassigned for the purpose of altering the deadweight, without alteration of the structure of the ship, any substantial alteration of the deadweight consequential upon such reassignments should not be construed as «a major conversion» as defined in Regulation 1(8). However, the IOPP Certificate should indicate only one deadweight of the ship and be renewed on every reassignment of load lines.

2) If an existing crude oil tanker of 40,000 tons deadweight and above satisfying the requirements of COW changes its trade for the carriage of product oil, conversion to CB or SBT and reissuing of the IOPP Certificate will be necessary (see paragraph 4.5 below). Such conversion should not be considered as a «major conversion» as defined in Regulation 1(8).

3) When an oil tanker is used solely for the storage of oil and is subsequently put into service in the transportation of oil, such a change of function should not be construed as a «major conversion» defined in Regulation 1(8).

4) The conversion of an existing oil tanker to a combination carrier, or the shortening of a tanker by removing a transverse section of cargo tanks should constitute a «major conversion» as defined in Regulation 1(8).

5) The conversion of an existing oil tanker to a segregated ballast tanker by the addition of a transverse section of tanks should constitute a «major conversion» as defined in Regulation 1(8) only when the cargo carrying capacity of the tanker is increased.

6) When a ship built as a combination carrier operates exclusively in the bulk cargo trade, the ship may be treated as a ship other than an oil tanker and Form A of the Record of the Construction and Equipment should be issued to the ship. If such a ship operates in the oil trade and is equipped to comply with the requirements for an oil tanker, the ship should be certified as an oil tanker (combination carrier) and Form B of the Record of Construction and Equipment should be issued to the ship. The change of such a ship from the bulk trade to the oil trade should not be construed as a «major conversion» as defined in Regulation 1(8).

(9) «Nearest land». The term «from the nearest land» means from the baseline from which the territorial sea of the territory in question is established in accordance with international law, except that, for the purposes of the present Convention «from the nearest land» off the north eastern coast of Australia shall mean a line drawn from a point on the coast of Australia in latitude 11°00 South, longitude 142°08 East to a point in latitude 10°35 South, longitude 141°55 East, thence to a point latitude 10°00 South, longitude 142°00 East, thence to a point latitude 9°10 South, longitude 143°52 East, thence to a point latitude 9°00 South, longitude 144°30 East, thence to a point latitude 13°00 South, longitude 144°00 East, thence to a point latitude 15°00 South, longitude 146°00 East, thence to a point latitude 18°00 South, longitude 147°00 East, thence to a point latitude 21°00 South, longitude 153°00 East, thence to a point on the coast of Australia in latitude 24°42 South, longitude 153°15 East.

(10) «Special area» means a sea area where for recognized technical reasons in relation to its oceanographical and ecological condition and to the particular character of its traffic the adoption of special mandatory methods for the prevention of sea pollution by oil is required. Special areas shall include those listed in Regulation 10 (C230) of this Annex.

(11) «Instantaneous rate of discharge of oil content» means the rate of discharge of oil in litres per hour at any instant divided by the speed of the ship in knots at the same instant.

(12) «Tank» means an enclosed space which is formed by the permanent structure of a ship and which is designed for the carriage of liquid in bulk.

(13) «Wing tank» means any tank adjacent to the side shell plating.

(14) «Centre tank» means any tank inboard of a longitudinal bulkhead.

(15) «Slop tank» means a tank specifically designated for the collection of tank drainings, tank washings and other oily mixtures.

(16) «Clean ballast» means the ballast in a tank which since oil was last carried therein, has been so cleaned that effluent therefrom if it were discharged from a ship which is stationary into clean calm water on a clear day would not produce visible traces of oil on the surface of the water or upon adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines. If the ballast is discharged through an oil discharge monitoring and control system approved by the Administration, evidence based on such a system to the effect that the oil content of the effluent did not exceed 15 parts per million shall be determinative that the ballast was clean, notwithstanding the presence of visible trac-
(17) «Segregated ballast» means the ballast water introduced into a tank which is completely separated from the cargo oil and oil fuel system and which is permanently allocated to the carriage of ballast or to the carriage of ballast or cargoes other than oil or noxious substances as variously defined in the Annexes of the present Convention.

IMO Interpretation:

The segregated ballast system should be a system which is completely separated from the cargo oil and fuel oil systems as required by Regulation 1(17). Nevertheless, provision may be made for emergency discharge of the segregated ballast by means of a connection to a cargo pump through a portable spool piece. In this case non-return valves should be fitted on the segregated ballast connections to prevent the passage of oil to the segregated ballast tanks. The portable spool piece should be mounted in a conspicuous position in the pump room and a permanent notice restricting its use should be prominently displayed adjacent to it.

Sliding type couplings should not be used for expansion purposes where lines for cargo oil or fuel oil pass through tanks for segregated ballast, and where lines for segregated ballast pass through cargo oil or fuel oil tanks. This interpretation is applicable to ships, the keel of which is laid, or which are at a similar stage of construction, on or after 1 July 1992.

(18) «Length» (L) means 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the foreside of the stem to the axis of the waterline on which this length is measured shall be parallel to the designed waterline. The length (L) shall be measured in meters.

(19) «Forward and after perpendiculars» shall be taken at the forward and after ends of the length (L). The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured.

(20) «Amidships» is at the middle of the length (L).

(21) «Breath» (B) means the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material. The breadth (B) shall be measured in metres.

(22) «Deadweight» (DW) means the difference in metric tons between the displacement of a ship in water of a specific gravity of 1.025 at the load waterline corresponding to the assigned summer freeboard and the lightweight of the ship.

(23) «Lightweight» means the displacement of a ship in metric tons without cargo, fuel, lubrication oil, ballast water, fresh water and feed water in tanks, consumable stores, and passengers and crew and their effects.

(24) «Permeability» of a space means the ratio of the volume within that space which is assumed to be occupied by water to the total volume of that space.

(25) «Volumes» and «areas» in a ship shall be calculated in all cases to moulded lines.

(26) Notwithstanding the provisions of paragraph (6) of this Regulation, for the purposes of Regulations 13, 13B, 13E and 18(4) of this Annex, «new oil tanker» means an oil tanker:

(a) for which the building contract is placed after 1 June 1979; or
(b) in the absence of a building contract, the keel of which is laid or which is at a similar stage of construction after 1 January 1980; or
(c) the delivery of which is after June 1982; or
(d) which has undergone a major conversion:

(i) for which the contract is placed after 1 June 1979; or
(ii) in the absence of a contract, the construction work of which is begun after 1 January 1980; or
(iii) which is completed after 1 June 1982;

except that, for oil tankers of 70,000 tons deadweight and above, the definition in paragraph (6) of this Regulation shall apply for the purposes of Regulation 13(1) of this Annex.

(27) Notwithstanding the provisions of paragraph (7) of this Regulation, for the purposes of Regulations 13, 13A, 13B, 13C, 13D, 18(5) and 18(6)(c) of this Annex, «existing oil tanker» means an oil tanker which is not a new oil tanker as defined in paragraph (26) of this Regulation.

(28) «Crude oil» means any liquid hydrocarbon mixture occurring naturally in the earth whether or not treated to render it suitable for transportation and includes:

(a) crude oil from which certain distillate fractions may have been removed; and

(b) crude oil to which certain distillate fractions may have been added.

(29) «Crude oil tanker» means an oil tanker engaged in the trade of carrying crude oil.

(30) «Product carrier» means an oil tanker engaged in the trade of carrying oil other than crude oil.

C. Control of Operational Pollution

C 100   Control of discharge of oil (Regulation 9)

(1) Subject to the provisions of Regulations 10 and 11(200 and 300) of this Annex and paragraph (2) of this Regulation, any discharge into the sea of oil or oily mixtures from ships to which this Annex applies shall be prohibited except when all the following conditions are satisfied:

(a) for an oil tanker, except as provided for in sub-paragraph (b) of this paragraph:

(i) the tanker is not within a special area;

(ii) the tanker is more than 50 nautical miles from the nearest land;

(iii) the tanker is proceeding en route;

(iv) the instantaneous rate of discharge of oil content does not exceed 30 litres per nautical mile;

(v) the total quantity of oil discharged into the sea does not exceed 15 parts per million; and

(vi) the tanker has in operation equipment as required by Regulation 15 of this Annex (See Pt.5 Ch.3 Sec.3)

(b) from a ship of 400 gross tonnage and above other than an oil tanker and from machinery space bilges excluding cargo pump room bilges of an oil tanker unless mixed with oil cargo residue:

(i) the ship is not within a special area;

(ii) the ship is proceeding en route;

(iii) the oil content of the effluent without dilution does not exceed 15 parts per million; and

(iv) the ship has in operation equipment as required by regulation 16 of this Annex. (See Pt.4 Ch.6 Sec.4 M)

IMO Interpretation:

1) The wording «from machinery space bilges excluding cargo pump room bilges of an oil tanker unless mixed with oil...»
cargoes in Regulation 9(1)(b) should be interpreted as follows:

1. Regulation 9(1)(a) applies to:
   1.1 discharges of oil or oily mixture from machinery space bilges of oil tankers where mixed with cargo oil residue or when transferred to slop tanks; and
   1.2 discharges from cargo pump room bilges of oil tankers.

2. Regulation 9(1)(b) applies to discharges from machinery space bilges of oil tankers other than those referred to above.

The above interpretation should not be construed as relaxing any existing prohibition of piping arrangements connecting the engine room and slop tanks which may permit cargo to enter the machinery spaces. Any arrangements provided for machinery space bilge discharges into the slop tanks should incorporate adequate means to prevent any backflow of liquid cargo or gases into the machinery spaces. Any such arrangements do not constitute a relaxation of the requirements of Regulation 16 with respect to oil discharge monitoring and control systems and oily-water separating equipment. (see Pt 4 Ch 6 Sec.4 M).

3. The phrase «the total quantity of the particular cargo of which the residue formed a part» in Regulation 9(1)(a)(v) relates to the total quantity of the particular cargo which was carried on the previous voyage and should not be construed as relating only to the total quantity of cargo which was contained in the cargo tanks into which water ballast was subsequently loaded.

4. The provisions of paragraph (1) of this Regulation shall not apply to the discharge of clean or segregated ballast or unprocessed oily mixtures which without dilution have an oil content not exceeding 15 parts per million and which do not originate from cargo pump-room bilges and are not mixed with oil cargo residues.

IMO Interpretation:

1. Ships of 400 gross tonnage and above but less than 10,000 gross tonnage, except those carrying large quantities of oil fuel are required to be fitted with oily-water separating equipment certified for an effluent with oil content of less than 100 ppm complying with the provisions of Regulation 16(6). Such ships may, however, be fitted with oil filtering equipment certified for an effluent with oil content not exceeding 15 ppm. This equipment may or may not be provided with an alarm arrangement as referred to in Regulation 16(7) (See Pt 4 Ch 6 Sec.4 M).

2. Such ships, whether or not provided with alarm arrangements, may discharge, within 12 nautical miles from the nearest land but outside special areas, oily mixture which without dilution has an oil content not exceeding 15 ppm. It is, however, recommended that an alarm arrangement in accordance with Regulation 16(7) be provided on such ships and be in operation for such discharges, so that ship's crew can ascertain that the oil content of the effluent does not exceed 15 ppm.

5. No discharge into the sea shall contain chemicals or other substances in quantities or concentrations which are hazardous to the marine environment or chemicals or other substances introduced for the purpose of circumventing the conditions of discharge specified in this Regulation.

6. The oily residues which cannot be discharged into the sea in compliance with paragraphs (1), (2) and (4) of this Regulation shall be retained on board or discharged to reception facilities.

7. In the case of a ship, referred to in regulation 16(6) of this Annex, not fitted with equipment as required by regulation 16(1) or 16(2) of this Annex (see Pt 4 Ch 6 Sec.4 M), the provisions of paragraph 1(b) of this regulation will not apply until 6 July 1998 or the date on which the ship is fitted with such equipment, whichever is the earlier. Until this date any discharge from machinery space bilges into the sea of oil or oily mixtures from such a ship shall be prohibited except when all the following conditions are satisfied:
   (a) the oily mixture does not originate from the cargo pump-room bilges;
   (b) the oily mixture is not mixed with oil cargo residues;
   (c) the ship is not within a special area;
   (d) the ship is more than 12 nautical miles from the nearest land;
   (e) the ship is proceeding en route;
   (f) the oil content of the effluent is less than 100 parts per million; and
   (g) the ship has in operation oily-water separating equipment of a design approved by the Administration, taking into account the specification recommended by the Organization.

* Reference is made to «Guidelines and Specifications for Pollution Prevention Equipment for Machinery Space Bilges of Ships» adopted by IMO in res. A.393(X). Equipment installed after 30 April 1994 should be in accordance with res. MEPC.60(33).

C 200 Methods for the prevention of oil pollution from ships while operating in special areas (Regulation 10).

1. For the purposes of this Annex the special areas are the Mediterranean Sea area, the Baltic Sea area, the Black Sea area, the Red Sea area, the «Gulf area» and the Gulf of Aden area and the Antarctic area, which are defined as follows:
   (a) The Mediterranean Sea area means the Mediterranean Sea proper including the gulfs and seas therein with the boundary between the Mediterranean and the Black Sea constituted by the 41°N parallel and bounded to the west by the Straits of Gibraltar at the meridian of 5°36’W.
   (b) The Baltic Sea area means the Baltic Sea proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57°44.8’N.
   (c) The Black Sea area means the Black Sea proper with the boundary between the Mediterranean and the Black Sea constituted by the parallel 41°N.
   (d) The Red Sea area means the Red Sea proper including the Gulfs of Suez and Aqaba bounded at the south by the rhumb line between Ras Si Ane (12°28.5’N, 43°19.6’E) and Husn Murad (12°40.4’N, 43°30.2’E).
   (e) The Gulf area means the sea area located north-west of the rhumb line between Ras al Hadd (22°30’N, 59°48’E) and Ras Al Fasteh (25°04’N, 61°25’E).
(f) The Gulf of Aden area means that part of the Gulf of Aden between the Red Sea and the Arabian Sea bounded to the west by the rhumb line between Ras si Ane (12°28’5.5N, 43°19.6’E) and Husn Murad (12°40.4’N, 43°30.2’E) and to the east by the rhumb line between Ras Asir (11°50’N, 51°16.9’E) and Ras Fartak (15°35’N, 52°13.8’E).

(g) The Antarctic area means the sea area south of 60° south latitude.

(2) Subject to the provisions of Regulation 11 (C300) of this Annex:

(a) Any discharge into the sea of or oily mixture from any oil tanker and any ship of 400 gross tonnage and above other than an oil tanker shall be prohibited while in a special area:

(i) the bilge water does not originate from cargo pump room bilges;

(ii) the bilge water is not mixed with oil cargo residues;

(iii) the ship is proceeding en route;

(iv) the oil content of the effluent without dilution does not exceed 15 parts per million;

(v) the ship has in operation oil filtering equipment complying with Regulation 16(5) of this Annex, (See Pt.4 Ch.6 Sec.4 M) and

(vi) the filtering system is equipped with a stopping device which will ensure that the discharge is automatically stopped when the oil content of the effluent exceeds 15 parts per million.

IMO Interpretation:
Regulation 10(3)(b)(vi) requires a stopping device which will ensure that the discharge is automatically stopped when the oil content of the effluent exceeds 15 ppm. Since, however, this is not a requirement of Regulation 16, ships need not be required to be equipped with such stopping device if no effluent from machinery space bilges is discharged within special areas. Conversely, the discharge of effluent within special areas from ships without an automatic stopping device is a contravention of the Convention even if the oil content of the effluent is below 15 ppm.

(4) (a) No discharge into the sea shall contain chemicals or other substances in quantities or concentrations which are hazardous to the marine environment or chemicals or other substances in the conditions of discharge specified in this Regulation.

(b) The oil residues which cannot be discharged into the sea in compliance with paragraph (2) or (3) of this Regulation shall be retained on board or discharged to reception facilities.

(5) Nothing in this Regulation shall prohibit a ship on a voyage only part of which is in a special area from discharging outside the special area in accordance with Regulation 9 (C100) of this Annex.

(6) Whenever visible traces of oil are observed on or below the surface of the water in the immediate vicinity of a ship or its wake, the Governments of Parties to the Convention should, to the extent they are reasonably able to do so, promptly investigate the facts bearing on the issue of whether there has been a violation of the provisions of this Regulation or Regulation 9 (C100) of this Annex. The investigation should include, in particular, the wind and sea conditions, the track and speed of the ship, other possible sources of the visible traces in the vicinity, and any relevant oil discharge records.

(7) Reception facilities within special areas:

(a) Mediterranean Sea, Black Sea and Baltic Sea areas:

(i) The Government of each Party to the Convention, the coastline of which borders on any given special area undertakes to ensure that not later than 1 January 1977 all oil loading terminals and repair ports within the special area are provided with facilities adequate for the reception and treatment of all the dirty ballast and tank washing water from oil tankers. In addition all ports within the special area shall be provided with adequate reception facilities for other residues and oily mixtures from all ships. Such facilities shall have adequate capacity to meet the needs of the ships using them without causing undue delay.

(ii) The Government of each Party having under its jurisdiction entrances to seawater courses with low depth contour which might require a reduction of draught by the discharge of ballast undertakes to ensure the provision of the facilities referred to in sub-paragraph (a)(i) of this paragraph but with the provision that ships required to discharge slops or dirty ballast could be subject to some delay.

(iii) During the period between the entry into force of the present Convention (if earlier than 1 January 1977) and 1 January 1977 ships while navigating in the special areas shall comply with the requirements of Regulation 9 (C100) of this Annex. However, the Governments of Parties the coastline of which borders any of the special areas under this sub-paragraph may establish a date earlier than 1 January 1977, but after the date of entry into force of the present Convention, from which the requirements of this Regulation in respect of the special areas in question shall take effect:

(1) if all the reception facilities required have been provided by the date so established; and

(2) provided that the Parties concerned notify the Organization of the date so established at least six months in advance, for circulation to other Parties.

(iv) After 1 January 1977, or the date established accordance with sub-paragraph (a)(ii) of this paragraph if earlier, each Party shall notify the Organization for transmission to the Contracting Governments concerned of all cases where the facilities are alleged to be inadequate.

(b) Red sea area, Gulfs area and Gulf of Aden area:

(i) The Government of each Party the coastline of which borders on the special areas undertakes to ensure that as soon as possible all oil loading terminals and repair ports within these special areas are provided with facilities adequate for the reception and treatment of all the dirty ballast and tank washing water from tankers. In addition all ports within the special area shall be provided with adequate reception facilities for other residues and oily mixtures from all ships. Such facilities shall have adequate capacity to meet the needs of the ships using them without causing undue delay.

(ii) The Government of each Party having under its jurisdiction entrances to seawater courses with low depth contour which might require a reduction of draught by the discharge of ballast shall undertake to ensure the provision of the facilities referred to in sub-paragraph (b)(i) of this paragraph but with the provision that ships required to discharge slops or dirty ballast could be subject to some delay.

(iii) Each Party concerned shall notify the Organization of the measures taken pursuant to provisions of sub-paragraph (b)(i) and (ii) of this paragraph. Upon receipt of sufficient notifications the Organization shall establish a date from which the requirements of this Regulation in respect of the area in question shall
take effect. The Organization shall notify all Parties of the date so established no less than twelve months in advance of that date.

(iv) During the period between the entry into force of the present Convention and the date so established, ships while navigating in the special area shall comply with the requirements of Regulation 9 (C100) of this Annex.

(v) After such date oil tankers loading in ports in these special areas where such facilities are not yet available shall also fully comply with the requirements of this Regulation. However, oil tankers entering these special areas for the purpose of loading shall make every effort to enter the area with only clean ballast on board.

(vi) After the date on which the requirements for the special area in question take effect, each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities are alleged to be inadequate.

(vii) At least the reception facilities as prescribed in Regulation 12 (C400) of this Annex shall be provided by 1 January 1977 or one year after the date of entry into force of the present Convention, whichever occurs later.

C 300 Exceptions (Regulation 11)

Regulations 9 and 10 (C100 and 200) of this Annex shall not apply to:

(a) the discharge into the sea of oil or oily mixture necessary for the purpose of securing the safety of a ship or saving life at sea; or

(b) the discharge into the sea of oil or oily mixture resulting from damage to a ship or its equipment:

(i) provided that all reasonable precautions have been taken after the occurrence of the damage or discovery of the discharge for the purpose of preventing or minimizing the discharge; and

(ii) except if the owner or the Master acted either with intent to cause damage, or recklessly and with knowledge that damage would probably result; or

(c) the discharge into the sea of substances containing oil, approved by the Administration, when being used for the purpose of combating specific pollution incidents in order to minimize the damage from pollution. Any such discharge shall be subject to the approval of any Government in whose jurisdiction it is contemplated the discharge will occur.

C 400 Reception facilities (Regulation 12)

(1) Subject to the provisions of Regulation 10 (C200) of this Annex, the Government of each Party undertakes to ensure the provision at oil loading terminals, repair ports, and in other ports in which ships have oily residues to discharge, of facilities for the reception of such residues and oily mixtures as remain from oil tankers and other ships adequate to meet the needs of the ships using them without causing undue delay to ships.

(2) Reception facilities in accordance with paragraph (1) of this Regulation shall be provided in:

(a) all ports and terminals in which crude oil is loaded into oil tankers where such tankers have immediately prior to arrival completed a ballast voyage of not more than 72 hours or not more than 1,200 nautical miles;

(b) all ports and terminals in which oil other than crude oil in bulk is loaded at an average quantity of more than 1,000 metric tons per day:

(c) all ports having ship repair yards or tank cleaning facilities;

(d) all ports and terminals which handle ships provided with the sludge tank(s) required by Regulation 17 of this Annex (see Pt.4 Ch.6 Sec.4 M);

(e) all ports in respect of oily bilge waters and other residues, which cannot be discharged in accordance with Regulation 9 (C100) of this Annex; and

(f) all loading ports for bulk cargoes in respect of oil residues from combination carriers which cannot be discharged in accordance with Regulation 9 (C100) of this Annex.

(3) The capacity for the reception facilities shall be as follows:

(a) Crude oil loading terminals shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of Regulation 9(1)(a)(C100) of this Annex from all oil tankers on voyages as described in paragraph (2)(a) of this Regulation.

(b) Loading ports and terminals referred to in paragraph (2)(b) of this Regulation shall have sufficient reception facilities to receive oil and oily mixtures which cannot be discharged in accordance with the provisions of Regulation 9(1)(a) of this Annex from oil tankers which load oil other than crude oil in bulk.

(c) All ports having ship repair yards or tank cleaning facilities shall have sufficient reception facilities to receive all residues and oily mixtures which remain on board for disposal from ships prior to entering such yards or facilities.

(d) All facilities provided in ports and terminals under paragraph (2)(d) of this Regulation shall be sufficient to receive all residues retained according to Regulation 17 (Pt.4 Ch.6 Sec.4 M) of this Annex from all ships that may reasonably be expected to call at such ports and terminals.

(e) All facilities provided in ports and terminals under this Regulation shall be sufficient to receive oily bilge waters and other residues which cannot be discharged in accordance with Regulation 9 (C100) of this Annex.

(f) The facilities provided in loading ports for bulk cargoes shall take into account the special problems of combination carriers as appropriate.

(4) The reception facilities prescribed in paragraphs (2) and (3) of this Regulation shall be made available no later than one year from the date of entry into force of the present Convention or by 1 January 1977, whichever occurs later.

(5) Each Party shall notify the Organization for transmission to the Parties concerned of all cases where the facilities provided under this Regulation are alleged to be inadequate.
## APPENDIX F
### LIST OF OILS

**A. List of Oils***

**Asphalt solutions**
- Blending Stocks
- Roofers Flux
- Straight Run Residue

**Oils**
- Clarified
- Crude Oil
- Mixtures containing crude oil
- Diesel Oil
- Fuel Oil No. 4
- Fuel Oil No. 5
- Fuel Oil No. 6
- Residual Fuel Oil
- Road Oil
- Transformer Oil
- Aromatic Oil (excluding vegetable oils)
- Lubricating Oils and Blending Stocks
- Mineral Oil
- Motor Oil
- Penetrating Oil
- Spindle Oil
- Turbine Oil

**Distillates**
- Straight Run
- Flashed Feed Stocks

**Gas Oil**
- Cracked

**Gasoline Blending Stocks**
- Alkylates — fuel
- Reformates
- Polymer — fuel

**Gasolines**
- Casing head (natural)
- Automotive
- Aviation
- Straight Run
- Fuel Oil No. 1 (Kerosene)
- Fuel Oil No. 1-D
- Fuel Oil No. 2
- Fuel Oil No. 2-D

**Jet Fuels**
- JP-1 (Kerosene)
- JP-3
- JP-4
- JP-5 (Kerosene, Heavy)
- Turbo Fuel
- Kerosene
- Mineral Spirit

**Naphtha**
- Solvent
- Petroleum
- Heartcut Distillate Oil

*) The list of oils shall not necessarily be considered as comprehensive.