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REPORT OF THE MARITIME SAFETY COMMITTEE ON ITS SEVENTIETH SESSION

Attached are annexes 8 to 22 to the report of the Maritime Safety Committee on its seventieth session (MSC 70/23).

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ANNEX 8

RESOLUTION MSC.83(70)
(adopted on 10 December 1998)

ADOPTION OF AMENDMENTS TO THE SURVEY GUIDELINES UNDER THE HARMONIZED SYSTEM OF SURVEY AND CERTIFICATION (RESOLUTION A.746(18))

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO that the Assembly, when adopting resolution A.746(18) on Survey Guidelines under the Harmonized System of Survey and Certification, authorized the Maritime Safety Committee and the Marine Environment Protection Committee to keep the Survey Guidelines under review for their further improvement,

NOTING that new SOLAS regulation II-1/3-4 requires that all tankers of not less than 20,000 tonnes deadweight shall be fitted with emergency towing arrangements, the design and construction of which shall be approved by the Administration based on the Guidelines adopted by the Organization by resolution MSC.35(63),

MINDFUL of the fact that the above-mentioned Guidelines do not contain any provisions for the periodical surveying of the emergency towing arrangements, other than in paragraph 3.2 therein which refers to regular inspection and maintenance,

RECOGNIZING that the exposed location and limited usage of such arrangements justify surveys to be carried out on an annual basis as a condition for the issuance and endorsement of the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety Certificate, as appropriate,

BEING AWARE that new SOLAS regulation IV/15.9, adopted by resolution MSC.69(69), requires that satellite EPIRBs shall be tested at intervals not exceeding 12 months for all aspects of operational efficiency with particular emphasis on frequency stability, signal strength and coding,

HAVING CONSIDERED the recommendations made by the Sub-Committee on Radiocommunications and Search and Rescue at its third session and the Sub-Committee on Flag State Implementation at its sixth session,

1. ADOPTS amendments to the Survey Guidelines under the Harmonized System of Survey and Certification (resolution A.746(18)), the text of which is set out in the Annex to the present resolution;

2. INVITES Governments carrying out surveys in accordance with resolution A.746(18) to take appropriate steps to implement the amendments annexed to this resolution.

ANNEX

AMENDMENTS TO THE SURVEY GUIDELINES UNDER THE HARMONIZED SYSTEM OF SURVEY AND CERTIFICATION (RESOLUTION A.746(18))

6 GUIDELINES FOR SURVEYS FOR THE CARGO SHIPS SAFETY CONSTRUCTION CERTIFICATE

6.2 Annual surveys

1 At the end of subparagraph .12 of paragraph 6.2.3, the full stop is replaced by a semi-colon.

2 The following new subparagraph .13 is added after existing sub-paragraph .12 of paragraph 6.2.3:

"(CA) .13 examining the emergency towing arrangements (SOLAS regulation II-1/3-4) to ensure ready availability."

3 The existing text of subparagraph .1 of paragraph 6.2.4 is replaced by the following:

"(CA) .1 the provisions of (CA) 6.2.3.1 and (CA) 6.2.3.13."

6.3 Intermediate surveys

4 The existing text of subparagraph .1 of paragraph 6.3.4 is replaced by the following:

"(CIn) .1 the provisions of (CA) 6.2.3.1 and (CA) 6.2.3.13."

6.4 Renewal surveys

5 The existing text of subparagraph .1 of paragraph 6.4.3 is replaced by the following:

"(CR) .1 the provisions of (CA) 6.2.3.1 to 6.2.3.12 and (CIn) 6.3.3.2 to 6.3.3.4";

6 The following new subparagraph .2 is added after the above subparagraph .1 of paragraph 6.4.3:

"(CR) .2 thoroughly examining the emergency towing arrangements (SOLAS regulation II 1/3-4) to ensure ready availability."

7 At the end of subparagraph .1 of paragraph 6.4.4, the full stop is replaced by a semi-colon.

8 The following new subparagraph .2 is added after existing subparagraph .1 of paragraph 6.4.4:

"(CR) .2 thoroughly examining the emergency towing arrangements (SOLAS regulation II-1/3-4) to ensure ready availability."

8 GUIDELINES FOR SURVEYS FOR THE CARGO SHIP SAFETY RADIO CERTIFICATE

8a.1 Initial surveys

9 The existing text of subparagraph .17.4 of paragraph 8a.1.2 is replaced by the following:

"(RI) .17.4 checking that the EPIRB identification (ID) is clearly marked on the outside of the equipment and decoding the EPIRB identity number and other information from the transmitted signal."

10 The following new subparagraphs .17.7, .17.8, .17.9 and .17.10 are added after existing subparagraph .17.6 of paragraph 8a.1.2:

"(RI) .17.7 checking the frequency of the 406 MHz signal without transmission of a distress call to the satellites;

(RI) .17.8 if possible, checking the frequency of the 121.5 MHz homing signal without activating the satellite system;

(RI) .17.9 after the above checking, remounting the EPIRB in its bracket, checking that no transmission has been started;

(RI) .17.10 checking that the EPIRB has been maintained at an approved testing or servicing station, if appropriate."

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ANNEX 9

RESOLUTION MSC.84(70)
(adopted on 10 December 1998)

ADOPTION OF AMENDMENTS TO THE GUIDELINES ON SURVEYS REQUIRED BY THE 1978 SOLAS PROTOCOL, THE INTERNATIONAL BULK CHEMICAL CODE AND THE INTERNATIONAL GAS CARRIER CODE (RESOLUTION A.560(14))

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO that the Assembly, when adopting resolution A.560(14) on Guidelines on Surveys Required by the 1978 SOLAS Protocol, the International Bulk Chemical Code and the International Gas Carrier Code, requested the Maritime Safety Committee to keep the Survey Guidelines under review for their further improvement,

NOTING that new SOLAS regulation II-1/3-4 requires that all tankers of not less than 20,000 tonnes deadweight shall be fitted with emergency towing arrangements, the design and construction of which shall be approved by the Administration based on the Guidelines adopted by the Organization by resolution MSC.35(63),

MINDFUL of the fact that the above-mentioned Guidelines do not contain provisions for the periodical surveying of the emergency towing arrangements, other than in paragraph 3.2 therein which refers to regular inspection and maintenance,

RECOGNIZING that the exposed location and limited usage of such arrangements justify surveys to be carried out on an annual basis as a condition for the issuance and endorsement of the Cargo Ship Safety Construction Certificate,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Flag State Implementation at its sixth session,

1. ADOPTS amendments to the Guidelines on Surveys required by the 1978 SOLAS Protocol, the International Bulk Chemical Code and the International Gas Carrier Code (resolution A.560(14)), the text of which is set out in the Annex to the present resolution;

2. RECOMMENDS, in the absence of provisions for surveys required for renewal of the Cargo Ship Safety Construction Certificate in resolution A.560(14), that thorough examination of the emergency towing arrangements should be part of any such survey;

3. INVITES Governments carrying out the relevant surveys in accordance with resolution A.560(14) and surveys for the renewal of Safety Construction Certificates to take appropriate steps to implement the amendments annexed to the resolution.

ANNEX

AMENDMENTS TO THE GUIDELINES ON SURVEYS REQUIRED BY THE 1978 SOLAS PROTOCOL, THE INTERNATIONAL BULK CHEMICAL CODE AND THE INTERNATIONAL GAS CARRIER CODE (RESOLUTION A.560(14))

3 MANDATORY ANNUAL SURVEY OF ALL CARGO SHIPS

3.3.4 Additional requirements for tankers

1 At the end of subparagraph .2 of paragraph 3.3.4.4, the full stop is replaced by a semi-colon.

2 The following new subparagraph .3 is added after existing subparagraph .2 of paragraph 3.3.4.4:

".3 examination of the emergency towing arrangements required by SOLAS regulation II-1/3-4 to ensure ready availability."

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ANNEX 10

PROPOSED AMENDMENTS TO THE INTERNATIONAL BULK CHEMICAL CODE (IBC CODE)

CHAPTER 8 - CARGO-TANK VENTING AND GAS-FREEING ARRANGEMENTS

1 In paragraph 8.1.1, the word "This" is replaced by the words "Unless expressly provided otherwise, this".

2 The following new paragraph 8.1.6 is added after existing paragraph 8.1.5:

"8.1.6 Ships constructed on or after 1 July 1986 but before 1 July 2002 should comply with the requirements of paragraph 8.3.3 by the date of the first scheduled dry-docking after 1 July 2002, but not later than 1 July 2005. However, the Administration may accept relaxation from the application of paragraph 8.3.3 for ships of less than 500 gross tonnage which were constructed on or after 1 July 1986, but before 1 July 2002."

3 In the last sentence of the existing paragraph 8.3.2, the reference to "8.3.5" is replaced by the reference to "8.3.6".

4 The following new paragraph 8.3.3 is added after existing paragraph 8.3.2:

"8.3.3 On ships constructed on or after 1 July 2002, controlled tank venting systems should consist of a primary and a secondary means of allowing full flow relief of vapour to prevent over-pressure or under-pressure in the event of failure of one means. Alternatively, the secondary means may consist of pressure sensors fitted in each tank with a monitoring system in the ship's cargo control room or position from which cargo operations are normally carried out. Such monitoring equipment should also provide an alarm facility which is activated by detection of over-pressure or under-pressure conditions within a tank."

5 Existing paragraphs 8.3.3 to 8.3.7 are renumbered as paragraphs 8.3.4 to 8.3.8.

6 In the last sentence of renumbered paragraph 8.3.5, the reference to "8.3.3.1" is replaced by the reference to "8.3.4.1".

CHAPTER 16 - OPERATIONAL REQUIREMENTS

7 In the list of additional operational requirements in paragraph 16.7, a reference to "8.3.6" is added underneath "7.1.6.3".

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ANNEX 11

PROPOSED AMENDMENTS TO THE BULK CHEMICAL CODE (BCH CODE)

CHAPTER II - CARGO CONTAINMENT

1 The following new paragraph 2.14.3 is added after existing paragraph 2.14.2:

"2.14.3 The controlled tank venting systems as provided in paragraph 2.14.2 above should consist of a primary and a secondary means of allowing full flow relief of vapour to prevent over-pressure or under-pressure in the event of failure of one means. Alternatively, the secondary means may consist of pressure sensors fitted in each tank with a monitoring system in the ship's cargo control room or position from which cargo operations are normally carried out. Such monitoring equipment should also provide an alarm facility which is activated by detection of over-pressure or under-pressure conditions within a tank. Ships should comply with the requirements of this paragraph by the date of the first scheduled dry-docking after 1 July 2002, but not later than 1 July 2005. However, the Administration may accept relaxation from the application of this paragraph for ships of less than 500 gross tonnage."

2 Existing paragraphs 2.14.3 and 2.14.4 are renumbered as paragraphs 2.14.4 and 2.14.5.

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ANNEX 12

AMENDED DRAFT OF PARTS OF A NEW REPORT COVERING ALL ASPECTS OF SAFETY AND ENVIRONMENTAL PROTECTION, INCLUDING THE REVIEW OF THE IMO RULES AND RECOMMENDATIONS ON NAVIGATION THROUGH THE STRAIT OF ISTANBUL, STRAIT OF ÇANAKKALE AND THE MARMARA SEA

1 [CONDITIONS IN] THE STRAIT OF ISTANBUL, THE STRAIT OF ÇANAKKALE AND THE SEA OF MARMARA

The Strait of Istanbul, the Strait of Çanakkale and the Sea of Marmara ("the Straits") form the only sea trade and voyage route between the Mediterranean Sea and the Black Sea. The total distance to be covered through the Straits is about 160 miles (300 km) which an average vessel takes about 16 hours to navigate.

The Strait of Istanbul is approximately 18 miles (31 km) long with a width varying between 700 and 1500 meters, and is characterized by sharp turns. Ships are bound to alter course in the Strait at least 12 times up to 80 degrees. Thick fog, snow, rain and strong changing surface and deep currents (up to 6-8 knots) also pose hazards to safe navigation. Some ships, due to their length, cannot keep to their lane in some of the narrow bends.

The Strait of Istanbul runs through a city with more than 10 million inhabitants. The shorelines of Istanbul are densely populated. Large vessels, including those carrying dangerous cargo, regularly approach close to these inhabited areas. The city of Istanbul is an ancient city with 3000 years of history and has been declared as a "World Heritage City" by UNESCO. It is an important cultural, tourist and business centre. The Straits have important ecological functions. They represent a migratory route for a number of fish species, including commercially important fish stocks.

The Strait of Çanakkale is about 39 miles (70 km) in length, whose width is generally between 1300 and 2000 meters. It has two difficult narrow bends and strong currents and counter-currents (up to 6-7 kts).

[insert footnote: Vessel traffic and accident statistics provided by the Turkish Maritime Authority.]

There are more than 1500 local vessel movements in the Strait of Istanbul daily, in addition to transiting ships, ships calling at the Port of Istanbul, leisure craft and fishing vessels. 1.5 million people daily move by ferry and other shuttle boats along the Strait and across the Strait from one side to the other side of the city of Istanbul.

In 1997, over 50,000 vessels passed through the Strait of Istanbul. This amounts to more than 140 vessels per day. Of these vessels, 35,000 were foreign flag vessels passing through the Strait. However, in 1985, 24,100 vessels passed through the Strait.

5,500 vessels transporting oil or LPG pass through the Straits yearly -- about 15 tankers per day. Over 40 million tons of oil and oil products are transported yearly through these straits. In 1997, 69 foreign warships passed through the Straits.

The combined maritime traffic is now therefore exceptionally dense.

The volume of traffic is expected to continue to increase with additional traffic coming from the Main-Danube, Volga-Baltic and Don waterways, as well as from the rise in foreign trade of the Black Sea and Caspian states.

403 major accidents have occurred in the Strait of Istanbul since 1948. Of these, 292 were collisions, 27 ships crashed into buildings in the residential areas along the Strait of Istanbul, 35 involved groundings, and 6 involved fires.

The annual number of accidents in the Straits has dropped from about 50 per year to about 5 per year since 1994, including 3 in the past six months, two of which were oil tankers.

[The Working Group therefore recognized that the increased volume of maritime traffic in the Straits and changes in the nature of cargo carried and in the size of vessels have increased the risks for the safety of navigation, seafarers, and the local population, and for the marine environment.]

[The Working Group agreed that these risks should be carefully evaluated [during efforts made] [and, in considering the actions necessary] to reduce and control these risks, [and] it should take into account the relevant international instruments [and the principle of freedom of navigation of merchant ships through the Straits].]

2 IMO Rules and Recommendations on Navigation through the Strait of Istanbul, Strait of Çanakkale and the Marmara Sea

[Text to be developed]

3 Ship reporting and navigation information

The Working Group noted MSC 69/INF.28 submitted by Turkey on ship reporting in the Strait of Istanbul, the Strait of Çanakkale and the Marmara Sea, in particular the observation that many ships have not participated in the reporting system (TUBRAP), despite being strongly recommended to do so in SN/Circular 166.

The Working Group recommended that the Government of Turkey be invited to submit to the Organization a proposal for a mandatory ship reporting system covering the Strait of Çanakkale, the Sea of Marmara and the Strait of Istanbul.

In the opinion of the Greek delegation such a proposed reporting system of a mandatory character is by its very nature inconsistent with paragraph 3 of resolution A.827(19), in which it is confirmed that the established - and now under revision - Rules and Recommendations "are not intended in any way to affect or prejudice the rights of any ship using the Straits under international law" as well as with paragraphs (i) and (j) of regulation V/8-1 of the 1974 SOLAS Convention.

4 Vessel traffic services

*The Working Group appreciated information on the development of Vessel Traffic services for the Strait of Istanbul and the Strait of Çanakkale (MSC 70/INF.21) and also noted further information on this matter by the delegation of Turkey.

It noted, in particular, that:

- the plan for the development of a VTS will, in the first stage, cover the Strait of Istanbul and the Strait of Çanakkale;
- at a later stage the Sea of Marmara will be covered by a VTS;
- the planned VTS will be operated in accordance with resolution A.857(20) on Guidelines for Vessel Traffic Services and also in accordance with the relevant IALA guidelines and standards.

The Working Group is strongly of the opinion that the establishment of a modern VTS will enhance maritime safety and environmental protection in the Straits.

5 Pilotage

The Working Group noted information provided by Turkey that the pilotage embarking and disembarking locations have been repositioned to safer locations. Turkey also informed the Working Group that only 40% of ships passing through the Strait of Istanbul and 30% of the ships passing through the Strait of Çanakkale are using pilotage services and further that 85% of ships involved in a collision or grounding in the Straits had not used a pilot and only in one case the vessels involved in an accident in the Straits were both using pilots. The Working Group reemphasized the strong recommendation to masters of vessels passing through the Straits to avail themselves of a qualified pilot in order to comply with the requirements of safe navigation.

6 Ships waiting at the entrances of the Straits for permission to proceed through

[Text to be developed]

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*shaded = new text

ANNEX 13

AMENDED TRAFFIC SEPARATION SCHEME

MARJAN/ZULUF (amended scheme)

(Reference Chart: British Admiralty 3774, 1991 edition
Note: **This chart is based on WGS 84 Datum).**

Description of the traffic separation scheme

a) A separation zone of 0.54 nautical miles (1,000 metres) wide is centred on the following geographical positions:

(1) 28° 14'.98 N, 049° 18'.60 E
(2) 28° 16'.76 N, 049° 18'.58 E
(3) 28° 18'.41 N, 049° 19'.24 E
(4) 28° 24'.33 N, 049° 27'.80 E
(5) 28° 30'.11 N, 049° 30'.04 E
(6) 28° 32'.04 N, 049° 30'.15 E

b) A traffic lane for southbound traffic is established between the separation zone and a line joining the following geographical positions:

(7) 28° 14'.94 N, 049° 17'.19 E
(8) 28° 17'.00 N, 049° 17'.13 E
(9) 28° 19'.28 N, 049° 18'.09 E
(10) 28° 25'.16 N, 049° 26'.60 E
(11) 28° 30'.36 N, 049° 28'.61 E
(12) 28° 32'.05 N, 049° 28'.70 E

c) A traffic lane for northbound traffic is established between the separation zone and a line joining the following geographical positions:

(13) 28° 15'.00 N, 049° 20'.01 E
(14) 28° 16'.55 N, 049° 19'.97 E
(15) 28° 17'.69 N, 049° 20'.45 E
(16) 28° 23'.63 N, 049° 29'.06 E
(17) 28° 29'.87 N, 049° 31'.47 E
(18) 28° 32'.03 N, 049° 31'.59 E

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ANNEX 14

ROUTEING MEASURES OTHER THAN TRAFFIC SEPARATION SCHEMES

AREA TO BE AVOIDED AROUND THE F3 STATION

(Reference chart: BA 2449, 1998 edition.
Note: This chart is based on European Datum (1950)).

Description of the area to be avoided

The F3 station is an area of heavy crossing traffic with some 11,000 crossing movements per annum and has suffered collision damage seven times over the past ten years. Therefore, with the aim of preventing further damage, it has been decided to establish an "Area to be avoided" centred on the F3 station.

The area to be avoided is centred on the following geographical position:

(1) Latitude 51° 23'.90 N (2) Longitude 002° 00'.59 E
with a radius of 500 metres.

AREA TO BE AVOIDED AROUND THE ALPHARD BANKS (ABOLISHED)

(Reference chart: BA 2083, 1998 edition.
Note: This chart is based on Cape Datum).

Description of the area to be avoided which has been abolished

The original "Area to be avoided" around the Alphard Banks was established to warn vessels off the Alphard Banks allowing for a considerable margin of safety because of insufficient aids to navigation and the proximity of the Alphard Banks to traffic routes. It appears on British Admiralty chart 2083 as a six mile radius centred on the Alphard Banks and intrudes by approximately two nautical miles into the northern traffic lanes of the traffic separation scheme "Off the Alphard Banks" adopted by MSC 69. The segment of arc intruding into the northern traffic lane may introduce an element of uncertainty for mariners using the lane. The advent of the GPS/GLONASS position fixing systems offering the requisite navigational accuracy for safe navigation in the vicinity of the Alphard Banks and the routeing of vessels into east and westbound traffic lanes by the recently adopted aforementioned TSS serves the same purpose as the original "Area to be avoided", and hence it has been decided to abolish it.

The area to be avoided that has been abolished is centred on the following geographical position:

(1) Latitude 35° 02'.40 S (2) Longitude 020° 51'.80 E
with a radius of six miles.

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ANNEX 15

AMENDMENTS TO THE GENERAL PROVISIONS ON SHIPS' ROUTEING (Resolution A.572(14), as amended)

Amend resolution A.572(14) "General Provisions on Ships' Routeing", as amended, as follows:

Section 6

1 New paragraph 6.8

"6.8 Traffic separation schemes shall be designed so as to enable ships using them to fully comply at all times with the International Regulations for Preventing Collisions at Sea, 1972, as amended"; and

2 Renumber existing paragraphs accordingly.

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ANNEX 16

RESOLUTION MSC.85(70)
(adopted on 7 December 1998)

MANDATORY SHIP REPORTING SYSTEMS

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO regulation V/8-1 of the International Convention for the Safety of Life at Sea (SOLAS), 1974 concerning the adoption by the Organization of ship reporting systems,

RECALLING FURTHER resolution A.858(20) which authorizes the Committee to perform the function of adopting ship reporting systems on behalf of the Organization,

TAKING INTO ACCOUNT the Guidelines and criteria for ship reporting systems adopted by resolution MSC.43(64),

HAVING CONSIDERED the recommendations of the Sub-Committee on Safety of Navigation at its forty-fourth session,

1. ADOPTS, in accordance with SOLAS regulation V/8-1, the mandatory ship reporting systems:

- Off the northeastern and the southeastern coasts of the United States area described in Annex 1 to the present resolution; and

- In the Strait of Dover/Pas-de-Calais area described in Annex 2.

2. DECIDES that the aforementioned mandatory ship reporting systems will enter into force at 0000 hours UTC on 1 July 1999.

3. REQUESTS the Secretary-General to bring this resolution and its Annexes to the attention of Member Governments and Contracting Governments to the 1974 SOLAS Convention.

ANNEX 1

DESCRIPTION OF THE MANDATORY SHIP REPORTING SYSTEMS FOR PROTECTION OF ENDANGERED NORTH ATLANTIC RIGHT WHALES IN SEA AREAS OFF THE NORTHEASTERN AND SOUTHEASTERN COASTS OF THE UNITED STATES

1 Categories of ships required to participate in the system

All ships of 300 gross tonnage or greater are required to participate in the reporting systems, except sovereign immune vessels which are exempt from reporting by regulation V/8-1(c).

2 Geographical coverage of the proposed systems and the number and edition of the reference chart used for the delineation of the system

2.1 Northeastern United States: Geographical boundaries of the proposed northeast area include the water of Cape Cod Bay, Massachusetts Bay, and the Great South Channel east and southeast of Massachusetts (Appendix 1). Co-ordinates of the proposed area are as follows: from a point on Cape Ann, Massachusetts at 42°39'.00 N, 70°37'.00 W; then northeast to 42°45'.00 N, 70°13'.00 W; then southeast to 42°10'.00 N, 68°31'.00 W; then south to 41°00'.00 N, 68°31'.00 W; then west to 41°00'.00 N, 69°17'.00 W; then northeast to 42°05'.00 N, 70°02'.00 W, then west to 42°04'.00 N, 70°10'.00 W; and then along the Massachusetts shoreline of Cape Cod Bay and Massachusetts Bay back to the point on Cape Anne at 42°39'.00 N, 70°37'.00 W. NOAA Chart No.13009.

2.2 Southeastern United States. Geographical boundaries of the proposed southeast area include coastal waters within about 25 nautical miles along a 90 nautical miles stretch of the Atlantic seaboard in Florida and Georgia (Appendix 2). The area extends from the shoreline east to longitude 80°51'.60 W with the southern and northern boundary at latitudes 30°00'.00 N and 31°27'.00 N, respectively. NOAA Chart No.11009.

3 Format, content of report, times and geographical positions for submitting reports, authority to whom the reports should be sent, available services

3.1 Format

The format for reporting is as set forth in paragraph 2 of the appendix to resolution A.851(20). An example of a transmission between ship and shore is at Appendix 3.

3.2 Content

Ships are required to provide the following information: the name of the ship; call sign or IMO identification number if applicable; position when entering the system; course; speed; route; and destination. Commercially sensitive information received in conjunction with the reporting system shall be kept confidential.

3.3 Geographical position for submitting reports

Participating ships are required to report to a shore-based authority only when entering the reporting area during a single voyage (that is, a voyage in which a ship is in the area to visit one or multiple ports or traverse the area before leaving for a port outside the reporting area); ships will not be required to report in again after leaving a port in the area or when exiting the system.

3.4 Authority

The authority for both areas of the system is the United States Coast Guard.

4 Information to be provided to participating ships and procedures to be followed

Ships will be provided with the following information:

4.1 Mariners shall be informed that they are entering an area of critical importance for the protection of the highly endangered right whale; that such whales are present; and that ship strikes pose a serious threat to whales and may cause damage to ships. Communication systems between ship and shore are described in paragraphs 7 and 8, below.

4.2 To obtain seasonal right whale advisories which are broadcast periodically, mariners would also be advised to monitor Coast Guard Broadcast Notice to Mariners, NAVTEX, NOAA Weather Radio, and, in the northeastern ship reporting system area only, the Cape Cod Canal Vessel Traffic Control and the Bay of Fundy Vessel Traffic Control. These advisories are based on surveys that are flown seasonally and in daylight and good weather conditions only. The sighting information may be useful only for brief periods as the whales move and surveys detect a small percentage of the whales present.

4.3 Mariners would be advised to consult with NAVTEX, Inmarsat-C SafetyNET (satellite text broadcasts), the United States Coast Pilot, Notice to Mariners, the nautical charts for information on the boundaries of the right whale critical habitat and the national marine sanctuary, applicable regulations, and precautionary measures that mariners may take to reduce the risk of hitting right whales. Mariners will further be advised that information placards, videos, and other educational materials are available from shipping agents, port authorities, pilots, relevant state agencies, the Coast Guard, and the National Marine Fisheries Service.

4.4 In the message back to the ship, mariners would also be requested to report any whale sightings and dead, injured, or entangled marine mammals to the nearest local Coast Guard station.

4.5 Where available, specific and timely information on whale locations will be provided to ships.

5 Radiocommunications required for the system, frequencies on which reports should be transmitted and the information to be reported

5.1 The reporting system in the northeastern United States will operate independently of the system in the southeastern United States. The system in the northeastern United States will operate year round, and the system in the southeastern United States will operate from 15 November through 15 April.

5.2 The systems will require ships to report in standard format preferably through Inmarsat-C. For ships using Inmarsat-C, the message will be sent to the shore-based authority described in paragraph 7.1 and a message will be automatically transmitted back to the ship also via Inmarsat-C.

5.3 Ships not equipped with Inmarsat-C will be required to report in standard format to the shore-based authority described in paragraph 7.2, either through direct-printing telegraphy (Inmarsat A/B, HF, MF or VHF) or by telephony (Inmarsat A/B, MF, HF or VHF). Ships reporting through such direct-printing telegraphy systems will receive a message from the shore-based authority described in paragraph 7.2.

5.4 The language used for reports in the system will be English, using the IMO *Standard Marine Communication Phrases* where necessary. Standard phrases in a prescribed format will be used in all direct-printing telegraphy and radiotelephony communications.

5.5 Commercially sensitive information will be kept confidential.

5.6 The United States will review the ship reporting systems no later than five years after their implementation date, to examine advances made in ship communication technologies and to ensure effective operation of the systems.

6 Rules and regulations in force in the areas of the system

The United States has taken appropriate action to implement international conventions to which it is a party including, where appropriate, adopting domestic legislation and promulgating regulations through domestic law. Relevant laws in force include domestic legislation and regulations to implement the International Convention on Collision Regulations, the Safety of Life at Sea Convention, the International Convention on the Prevention of Pollution from Ships, the International Convention on Oil Pollution, Preparedness, Response and Co-operation, the Convention on the International Trade in Endangered Species of Wild Fauna and Flora, the International Convention for the Regulation of Whaling, and other treaties. Relevant domestic legislation includes the Ports and Waterways Safety Act, the Endangered Species Act, the Whaling Convention Act, the Marine Mammal Protection Act, the Marine Protection Resources and Sanctuaries Act, and a variety of other acts. In some cases, rules have been promulgated including those relating specifically to right whales or governing ship operations. For example, a regulation has been promulgated which prohibits most approaches within 500 yards (460 meters) of a northern right whale. This regulation, as well as other domestic law, is implemented and enforced consistent with international law.

7 Shore-based facilities to support operation of the system

7.1 The shore-based authority for those ships reporting via Inmarsat-C is the United States Coast Guard. The e-mail address to be used for this reporting will be provided well in advance of implementation of the systems through Notices to Mariners.

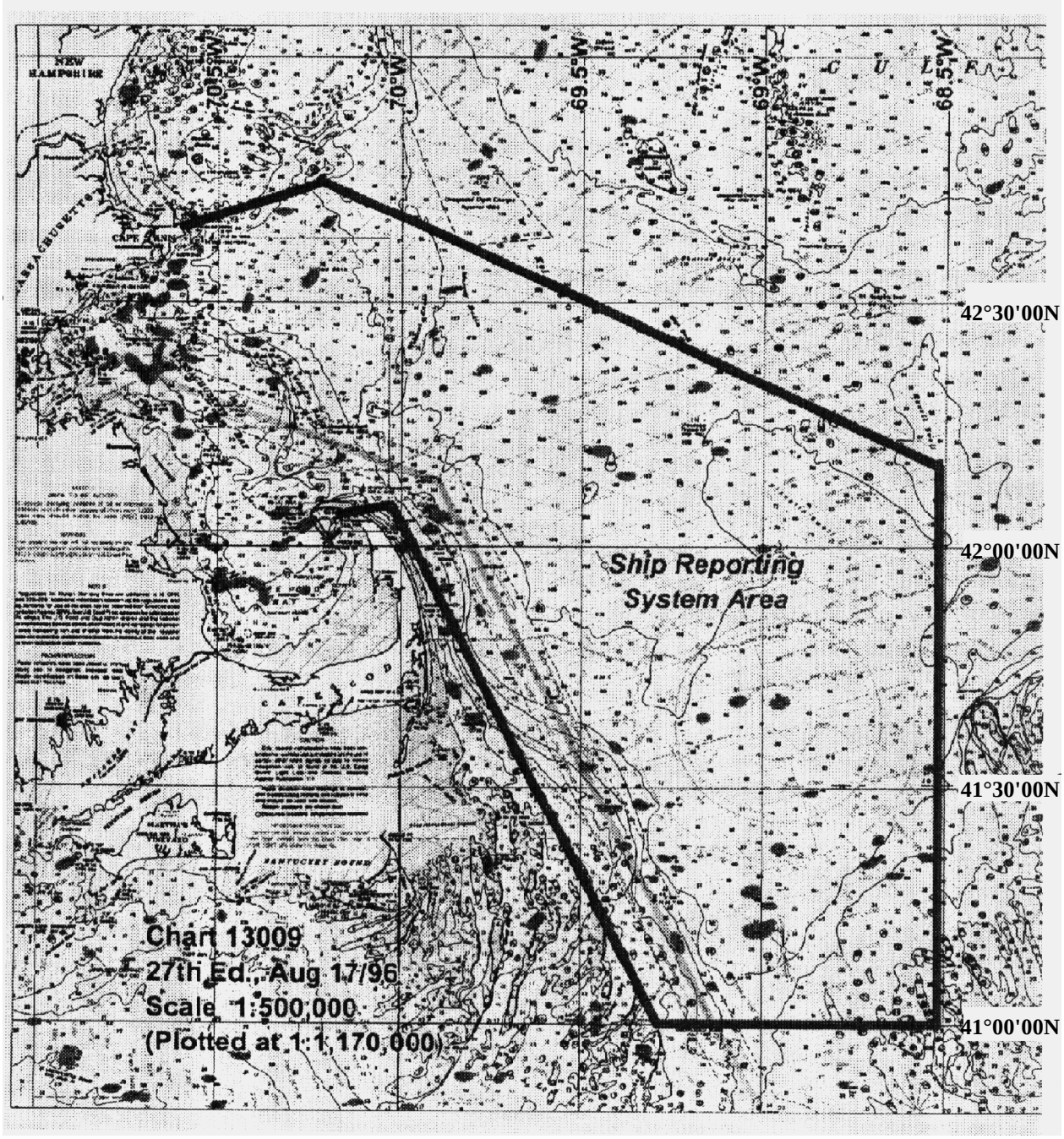
7.2 The small percentage of ships that do not have Inmarsat-C capabilities will be required to contact the nearest Coast Guard communication station through appropriate communication channels. The United States Coast Guard maintains communication stations along the United States east coast. Information about these stations can be found in the GMDSS Master Plan (GMDSS/Circ.7) or National Imagary and Mapping Agency (NIMA) Publication 117. Information received from the ships will be sent electronically to a central location for data storage, handling, and retrieval.

8 Alternative communications if the communication facilities of the shore-based authority fails

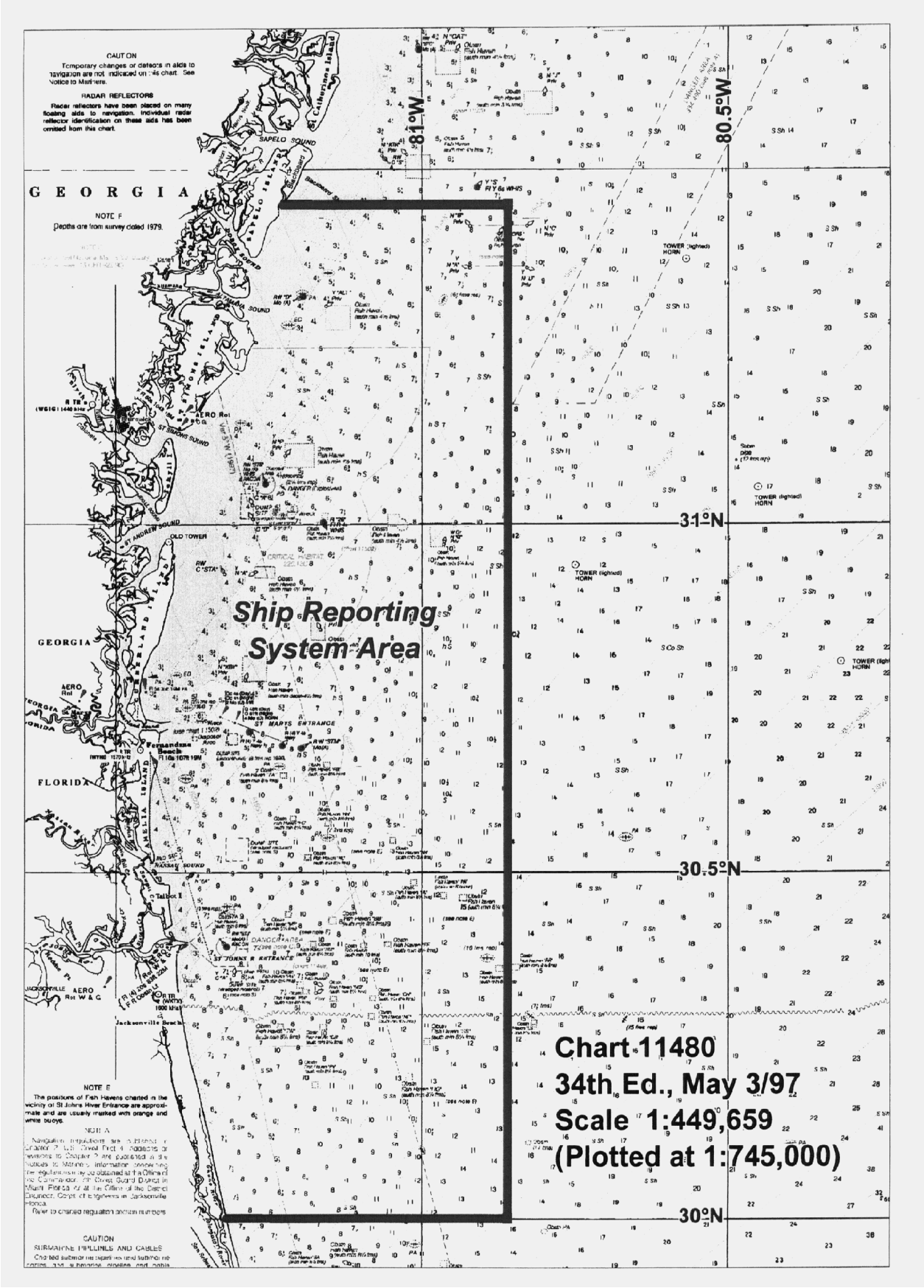
Short-term failure of the reporting systems due to communications problems will not result in a loss of life, and will have minimal impact on the safety of vessels. NAVTEX Broadcast Notice to Mariners can be used to notify mariners of the temporary failure of the system and can provide mariners with basic information necessary to avoid right whales. Downtime is likely to be minimal and is not expected to result in increased ship strikes and whale mortality. For those ships reporting through INMARSAT C or direct printing radiotelegraphy, the standard protocol now used for such systems will be used to re-route incoming and outgoing communications through an alternate address and it is expected that this will minimize the system's downtime, though some delay may occur.

The Coast Guard operated MF, HF, VHF voice communications systems, by design, have built in redundancies and overlapping coverage areas and an individual equipment or site failure are unlikely to affect the ability of a mariner to contact a Coast Guard facility to make a required report.

Appendix 1


70°15'W
70°W
69.5°W
69°W
68.5°W
42°30'00N
42°00'00N
41°30'00N
41°00'00N
Ship Reporting
System Area
Chart 13009
27th Ed., Aug 17/96
Scale 1:500,000
(Plotted at 1:1,170,000)

Appendix 2


Ship Reporting System Area
Chart 11480
34th Ed., May 3/97
Scale 1:449,659
(Plotted at 1:745,000)
81°W
80.5°W
31°N
30.5°N
30°N
GEORGIA
FLORIDA
CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.
RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.
NOTE F
Depths are from survey dated 1979.
NOTE E
The positions of Fish Havens charted in the vicinity of St Johns River Entrance are approximate and are usually marked with orange and white buoys.
CAUTION
SUBMARINE PIPELINES AND CABLES

Appendix 3

Example of Message from the Ship

A **Ship Name**

B **Call Sign or IMO Identification Number**

D **Course**

E **Speed**

H **Entry**

I **Destination**

L **Route**

Example of Message Back to the Ship

00016April1999
From: Shore-based Authority
To: M/V Ship

You are entering an area where North Atlantic right whales exist. Right whales are critically endangered and at risk from ship strikes. Whales can damage ships' sonar dome, propeller, and shaft. Recommend monitoring Coast Guard Broadcast Notice to Mariners, NAVTEX, NOAA Weather Radio, or, in the northeast only, Cape Cod Canal Vessel Traffic Control and Bay of Fundy Vessel Traffic Control for latest advisories and sightings reports. These advisories and reports are based on surveys which are conducted seasonally; however, such surveys only locate only a small percentage of the whales, the information from them remains valid only for a short period of time because the whales move, and they cannot be conducted at night or in inclement weather.

Urge exercising prudent seamanship to avoid approaching right whales. Recommend consulting NAVTEX, Inmarsat-C SafetyNET, the United States Coast Pilot, and Notices to Mariners for information on precautionary measures that may be taken to reduce the risk of hitting right whales and for applicable regulations. Right whale critical habitat and the Stellwagen Bank National Marine Sanctuary are also marked on charts.

Right whale information placards, videos, and other educational material are available from shipping agents, port authorities, relevant state agencies, the United States Coast Guard, and the National Marine Fisheries Service. Mariners are requested to report right whale sightings, whale entanglements, or dead whales to the Coast Guard on VHF Channel 16.

ANNEX 2

DESCRIPTION OF THE MANDATORY SHIP-REPORTING SYSTEM FOR THE DOVER STRAIT/PAS-DE-CALAIS

1 Categories of ships required to participate in the system

Ships of 300 gross tonnage and over are required to participate in the system. This threshold is the same as used in the existing voluntary MAREP scheme (SN/Circ.167, annex, page 4).

Within the coverage area, these arrangements replace the existing MAREP scheme for ships of 300 gross tonnage and over. However, ships of less than 300 gross tonnage should continue to make reports under the existing voluntary arrangements in circumstances where they:-

- are "not under command" or at anchor in the TSS or its ITZs;
- are "restricted in their ability to manoeuvre"; or,
- have defective navigational aids.

The MAREP arrangements outside the coverage area of this system remain unchanged.

2 Geographical coverage of the system and the number and edition of the reference chart used for the delineation of the system

The system covers a 65 mile stretch of the Dover Strait/Pas-de-Calais and is bounded by a line to the east drawn from North Foreland to the border between France and Belgium; and by a line to the west drawn from the Royal Sovereign Light Tower, through the Bassurelle Light Buoy (at its assigned position of 50°32'.80 N, 000°57'.80 E) to the coast of France.

The reference charts are British Admiralty Charts 2449 (1998 edition, scale 1:150,000) and 2451 (1991 edition, scale 1:150,000), and also chart 7312 of the French Navy Hydrographic and Oceanographic Service (INT 1072) (1994 edition, scale 1:375000). Also relevant is the British Admiralty Chart 5500 - *Mariners' Routeing Guide English Channel and Southern North Sea* and the French Navy Hydrographic and Oceanographic Service, 5HOM 8001 Chart - *Guide pour la préparation de la traversee de la Manche.*

The area of the reporting system is covered by modern hydrographic surveys and areas of unstable seabed are regularly resurveyed to ensure navigational safety.

3 Format and content of reports, times and geographical positions for submitting reports, authority to whom reports should be sent and available services

The reports required from ships entering the area covered by the system are position reports similar to the existing MAREP/POSREP arrangements. The short title for the ship-report is CALDOVREP.

Reports should be made using VHF voice transmissions. However, when reporting to DOVER COASTGUARD, ships can fulfil the reporting requirements of a CALDOVREP through the use of automatic ship identification transponders by the Organization.

A ship may elect, for reasons of commercial confidentiality, to communicate that section of the report which provides information on cargo by non-verbal means prior to entering the system.

3.1 Format

The information given below is derived from the format-type given in paragraph 2 of the appendix to resolution A.851(20).

3.2 Content

A report from a ship to the shore-based authorities should contain the following information to achieve the objectives of the system:

A	-	Name of the ship, call sign, IMO identification number (or MMSI for transponder reports)
C or D	-	Position (expressed in latitude and longitude).
E and F	-	Course and speed of the ship.
O	-	Vessel's draught.
L	-	Route information
P	-	Hazardous cargo, class and quantity, if applicable.
Q or R	-	Breakdown, damage and/or deficiencies affecting the structure, cargo or equipment of the ship or any other circumstances affecting normal navigation in accordance with the provisions of the SOLAS and MARPOL Conventions.

Note:
On receipt of a position message, the VTS operators will establish the relationship between the ship's position and the information supplied by the position fixing equipment available to them. Information on course and speed will help operators to identify one ship among a group of ships. This will be achieved automatically if a transponder is used.

3.3 Geographical position for submitting reports

North-east bound traffic should report to GRIS NEZ TRAFFIC on the French coast 2 nautical miles before crossing the line from the Royal Sovereign light tower, through the Bassurelle Light Buoy (at its assigned position of 50°32'.8N, 000°57'.8E) to the coast of France.

South-west-bound traffic should report to the shore at DOVER COASTGUARD on the English coast when within VHF range of North Foreland and not later when crossing the line drawn from North Foreland to the border between France and Belgium (Appendix).

Crossing Traffic

Reports to the nearer of the two shore stations should be made on departure from a port within the coverage area. Recognizing that cross-Channel ferries generally operate according to published schedules, special reporting arrangements can be made on a ship-by-ship basis, subject to the approval of **both** GRIS NEZ TRAFFIC and DOVER COASTGUARD.

Further reports should be made to the relevant shore station whenever there is a change of navigational circumstance, particularly in relation to items Q and R of the reporting format.

3.4 Authority

The shore-based authorities are the Regional Centre for Surveillance and Rescue Operations, CROSS GRIS NEZ (Call Sign: GRIS NEZ TRAFFIC) - provided by the French Ministry with responsibility for maritime navigation, and the Maritime Rescue Co-ordination Centre, MRCC DOVER (Call Sign: DOVER COASTGUARD) - provided by HM Coastguard, which is part of the United Kingdom's Department of the Environment, Transport and the Regions.

Both GRIS NEZ and DOVER sites monitor shipping in the TSS in the Dover Strait / Pas de Calais using radar and each provides regular information about weather and navigational hazards as part of the joint Channel Navigation Information Service (CNIS). Information is broadcast at the following times and on the following frequencies:

Station	**Frequency**	**Times**	**Additional broadcasts in times of poor visibility**
Gris Nez (Call Sign: GRIS NEZ TRAFFIC)	VHF Ch 79	H + 10	H + 25
Dover (Call Sign: DOVER COASTGUARD)	VHF Ch 11	H + 40	H + 55

Information broadcasts will be preceded by an announcement on VHF Ch 16 and broadcasts from both stations will end with a reminder about the time of the next broadcast and the VHF frequency on which it will be made.

4 Information to be provided to participating ships

If necessary, individual information can be provided to a ship, particularly in relation to positioning and navigational assistance.

5 Radiocommunications requirements for the system, frequencies on which reports should be transmitted and information to be reported

The radiocommunications equipment required for the system is that defined in the GMDSS for Sea Area A1.

The ship reports can be made by voice on VHF radio using Ch 13 (GRIS NEZ TRAFFIC) or Ch 11 (DOVER COASTGUARD).

Ship reports to DOVER COASTGUARD can alternatively be made by automatic ship-identification transponder, where available, using a suitably adapted DSC facility on VHF Ch 70, or equipment conforming to the standards adopted for the Universal AIS Transponder.

Confidential information may be transmitted by other means.

6 Relevant rules and regulations in force in the area of the system

The International Regulations for Preventing Collisions at Sea 1972 (as amended) apply throughout the reporting area. In particular, Rule 10 of those Regulations applies to the IMO-adopted TSS.

Ships carrying dangerous or hazardous cargoes and bound to or from any port within the proposed reporting area must comply with the European HAZMAT Directive (EC Directive 93/75).

In addition to these international requirements, the Joint Decree of the Préfét Maritime de l'Atlantique and the Préfét Maritime de la Manche et de la Mer du Nord (No. 92/97 - Brest, No. 03/97 - Cherbourg) control navigation in the approaches to the French coast in the North Sea, the English Channel and the Atlantic in order to prevent accidental marine pollution. The Regulations make provision, in particular, for ships transporting hydrocarbons (MARPOL '73 Annex I), harmful liquid substances (MARPOL Annex II), noxious substances (MARPOL Annex III), dangerous goods (IMDG Code), preparing to pass through or remain in French territorial waters, to send an advance report to the appropriate CROSS five hours before entering territorial waters, or six hours before departure. The message sent to the CROSS must make clear the ship's intended movements in territorial waters and the status of its ability to manoeuvre and navigate.

The same Regulations require ships to monitor VHF Ch 16 or other specific frequencies in certain areas, and require the reporting of any accident within 50 miles of the French coast and the taking of any action required by the maritime authorities to reduce risks.

The United Kingdom has established a pollution control zone under the Merchant Shipping (Prevention of Pollution) (Limits) Regulations 1996. The proposed reporting area is included within those limits. Ships causing pollution within the area can be prosecuted and fined more than £250,000.

7 Shore-based facilities to support operation of the system

Dover Coastguard

The Channel Navigation Information Service (CNIS) has radar, an Information Processing and Retrieval System (IPRS), access to the United Kingdom's HM Coastguard operational radiocommunications, VHF Direction Finding (DF), radio VHF Digital Selective Calling (DSC), and Automatic Identification System (AIS) facilities. CNIS supports the primary responsibilities of preserving safety of life at sea and co-ordinating responses to incidents.

7.1 CNIS facility

The CNIS processing and display system receives inputs from the radar and VHF DF equipment, processes the information and presents it on any or all of six displays. Each display shows processed images (tracks) from any of the three radar inputs overlaid on a synthetic map of a selected area. New targets entering radar range are automatically tagged with a unique track number. The position, course and speed information of up to 300 tracks is automatically updated and recorded, for each of the three radars, throughout the vessel's passage through the CNIS area, giving the CNIS a 900 track capability.

DOVER COASTGUARD maintain a continuous watch on traffic in the Dover Strait/Pas-de-Calais. Operators can add vessel information to the associated IPRS database (such as name and cargo) and can display that supporting information on a separate screen. CNIS is capable of providing an automatic alarm to identify any track which strays into an unauthorised area. VHF DF vectors appear when a VHF radio transmits on the frequency selected on the VHF DF equipment Recording equipment automatically stores information from all tracks, which can either be replayed on the system or specific track movements can be plotted onto an A0 size sheet of paper. CNIS operators have access to Lloyd's Register and Hazardous Cargo data on a separate computer.

7.2 Radar facilities

Three surveillance radars cover the CNIS area and the area of the mandatory ship-reporting system. These are TERMA Dual X Band systems, each comprising main and back-up transceivers (type 232075) and a single antenna. The radars are located at:

- **Margate** - The antenna is 118 metres above mean ordnance datum and covers the area from the southern area of the North Sea to Dover;

- **Dover** - The antenna is 125 metres above mean ordnance datum and covers the area from North Foreland to Hastings; and,

- **Fairlight** - The antenna is 126 metres above mean ordnance datum and covers the area from Dover to the western boundary of the CNIS area.

Data from the Margate and Fairlight radars are transmitted to DOVER COASTGUARD via microwave links. The radars have a minimum operational range of 75 nautical miles, although the operational range of each radar is limited by radar video units to 35 nautical miles to prevent the track table from filling up with vessels which are not entering the CNIS area.

7.3 VHF DF facilities

CNIS automatically displays vectors generated from the DF systems at Dover, Fairlight, North Foreland, St. Frieux and Cap Gris Nez. All of the DF systems may be set to one of a number of the VHF channels used in the area. In parallel, Channel 16 receivers monitor the distress channel, should a distress call be sent.

7.4 Radiocommunication facilities

Radiocommunications terminals are sited in the consoles of the MRCC DOVER Operations Room. VHF radio receivers are located at Dover, while their associated transmitters are at West Hougham (near Folkestone) to gain optimum coverage of 13 VHF channels. MF is also fitted at Dover. Other VHF Transmitters are fitted at Fairlight and North Foreland radio sites and are controlled via landlines. The VHF channels used are:

- VHF Air (AM) on 132.65 MHz
- Ch 0 (SAR);
- Ch 6 (inter ship / scene of search for SAR);
- Ch 9 (pilotage) - receive only;
- Ch 10 (counter pollution);
- Ch 11 (port operations and CNIS) - continuously monitored;
- Ch 12 (Thames port control) - receive only;
- Ch 13 (inter ship and port operations);
- Ch 14 (Thames port control) -receive only;
- Ch 16 (international distress) - continuously monitored;
- Ch 30 (special operations);
- Ch 67 (small ship safety) - secondary SAR;
- Ch 69 (inter ship, port operations and CNIS);
- Ch 73 (Ch 0 back up);
- Ch 74 (Dover port control);
- Ch 80 (marinas);
- Ch 99 (Coastguard private channel).

7.5 VHF DSC facilities

A VHF Ch 70 digital calling system has been installed as part of the GMDSS requirement. Its purpose is to provide rapid distress alerting between vessels and the shore, routine calling of vessels and AIS facilities. DSC communications are available to all operator positions at DOVER COASTGUARD. DSC takes priority over all other operations.

7.6 AIS facilities

DOVER COASTGUARD can interrogate ships fitted with transponders to gain information on their identity and position. This information is displayed as an icon on an electronic charting package covering the CNIS area.

GRIS NEZ TRAFFIC

Similar facilities to those at DOVER COASTGUARD are also available at GRIS NEZ TRAFFIC. The two centres act in partnership in the operation of the CNIS. GRIS NEZ TRAFFIC specifically has the following facilities.

7.7 Radar facilities

GRIS NEZ TRAFFIC is equipped with two radar installations at:-

- **Cap Gris Nez; and**
- **Mont St. Frieux.**

The two radar installations are linked to a single processing system, giving a complete visual display of the area covered.

7.8 Particular features

The system at GRIS NEZ TRAFFIC allows the simultaneous monitoring of 1,000 tracks, which can be recorded and saved for up to a year. Advanced functions include alarms signalling risk scenarios, the identification of tracks infringing Rule 10 of the COLREGs, the monitoring of ships which make abrupt changes of course and speed, the observation of ships entering prohibited areas, and the monitoring of ships at anchor. All situations can be recorded, archived, and replayed either on screen or in the form of a print out.

7.9 Radiocommunication facilities

CROSS GRIS NEZ is equipped with 4 VHF radio installations, allowing coverage of the whole of the reporting area. Each station can send or receive on:

- VHF DSC Ch 70 (continuously monitored)
- Ch 16 (continuously monitored)
- Ch 13 (on which ships are requested to send their reports - again, continuously monitored)

One station (Cap Gris Nez) has facilities to send and receive information on MF, both through radiotelegraphy and DSC on a frequency of 2187.5 kHz, which is continually monitored.

7.10 Direction finding equipment

GRIS NEZ TRAFFIC is equipped with 2 VHF radio direction finders installed at Cap Gris Nez and Mont St. Frieux, allowing VHF calls to be located precisely. Each installation can monitor 2 frequencies simultaneously within an accuracy of 0.5°.

7.11 Personnel

Both DOVER COASTGUARD and GRIS NEZ TRAFFIC are staffed by personnel experienced in the management of ship reporting systems.

8 Alternative communication if the shore-based facilities fail

CNIS is designed with sufficient system redundancy to cope with normal equipment failure. Radars have dual transmitter/receivers controlled either from MRCC DOVER or the radar site. Radiocommunications are controlled at the MRCC. In the event of a failure there, each transmitter/receiver can be operated from the radar site. Limited coverage can also be achieved using emergency 25W transceivers, or 5W portable radios at DOVER COASTGUARD. If CNIS operations are jeopardised at either DOVER COASTGUARD or GRIS NEZ TRAFFIC, then the other site can assume total control.

9 Measures to be taken if a ship fails to comply with the requirements of the system

The primary objective of the system is to facilitate the exchange of information between the ship and the shore and so support safe navigation and the protection of the marine environment. All means will be used to encourage and promote the full participation of ships required to submit reports under SOLAS Regulation V/8-1. If reports are not submitted and the offending ship can be positively identified, then information will be passed to the relevant Flag State Authorities for investigation and possible prosecution in accordance with national legislation. Information will also be made available to Port State Control inspectors.

SUMMARY

1 Categories of ships to report

All ships of 300 gross tonnage and over.

2 When and where to report

North-east bound traffic: GRIS NEZ TRAFFIC on the French coast 2 nautical miles before crossing the line from the Royal Sovereign Light Tower, through the Bassurelle Buoy (at its assigned position of 50°32'.80 N, 000°57'.80 E) to the French coast.

South-west bound traffic: DOVER COASTGUARD on the English coast when within VHF range of North Foreland, and not later than when crossing the line drawn from North Foreland to the border between France and Belgium.

Report to the nearer of the two shore stations on departure from a port **within the area covered**.

3 How to report

By voice on VHF radio using Ch 13 (GRIS NEZ TRAFFIC) or Ch 11 (DOVER COASTGUARD).

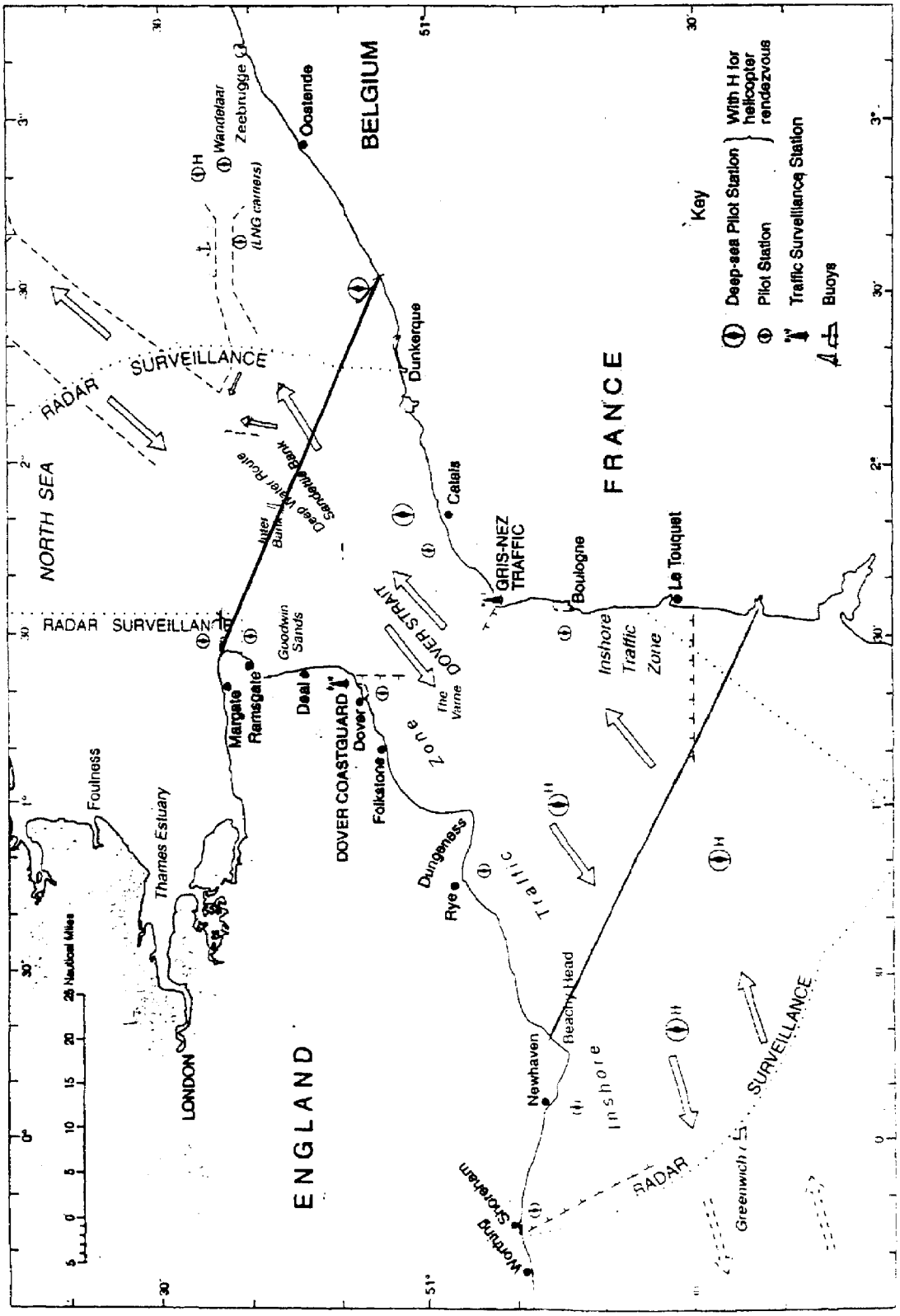
Alternatively to DOVER COASTGUARD by automatic ship-identification transponder, or using equipment conforming to the standards adopted for the Universal AIS Transponder.

Confidential information may be transmitted by other means.

4 Reporting format

A	-	Name of the ship, call sign, IMO identification number (or MMSI for transponder reports)
C or D	-	Position (expressed in latitude and longitude)
E and F	-	Course and speed of the ship.
O	-	Vessel's draught.
L	-	Route information
P	-	Hazardous cargo, class and quantity, if applicable.
Q or R	-	Breakdown, damage and/or deficiencies affecting the structure, cargo or equipment of the ship or any other circumstances affecting normal navigation in accordance with the provisions of the SOLAS and MARPOL Conventions.

Appendix



English Channel to North Sea, from Shoreham to Zeebrugge

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ANNEX 17

RESOLUTION MSC.86(70)
(adopted on 8 December 1998)

ADOPTION OF NEW AND AMENDED PERFORMANCE STANDARDS FOR NAVIGATIONAL EQUIPMENT

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO resolution A.825(19), by which the Assembly resolved that the functions of adopting performance standards for radio and navigational equipment, as well as amendments thereto, shall be performed by the Maritime Safety Committee on behalf of the Organization,

HAVING CONSIDERED new performance standards and amendments to existing performance standards adopted by the Assembly and prepared by the forty-fourth session of the Sub-Committee on Safety of Navigation,

1. ADOPTS the following new recommended performance standards, set out in Annexes 1 to 3 to the present resolution:

.1 Recommendation on Performance Standards for Sound Reception Systems (Annex 1);

.2 Recommendation on Performance Standards for Marine Transmitting Magnetic Heading Devices (TMHDs) (Annex 2); and

.3 Recommendation on Performance Standards for an Integrated Navigation System (Annex 3);

2. ADOPTS ALSO the amendments to the Recommendation on Performance Standards for Electronic Chart Display and Information Systems (ECDISs) (resolution A.817(19)) set out in Annex 4 to the present resolution;

3. RECOMMENDS Member Governments to ensure that:

.1 sound reception systems, marine transmitting heading devices and integrated navigation systems installed on or after 1 January 2000 conform to performance standards not inferior to those set out in Annexes 1 to 3 to the present resolution;

.2 ECDIS installed on or after 1 January 2000 conform, respectively, to performance standards not inferior to those set out in resolution A.817(19), as amended, and Annex 4 to the present resolution;

.3 ECDIS installed on 1 January 1999 and before 1 January 2000 conform at least to the performance standards set out in resolution A.817(19), as amended by resolution MSC.64(67), Annex 5; and

.4 ECDIS installed before 1 January 1999 conform at least to performance standards set out in resolution A.817(19).

ANNEX 1

RECOMMENDATION ON PERFORMANCE STANDARDS FOR SOUND RECEPTION SYSTEMS

1 INTRODUCTION

1.1 Sound reception systems are acoustical electronic navigational aids to enable the officer on the watch to hear outside sound signals inside a totally enclosed bridge in order to perform the look-out function as required in the International Regulations for Preventing Collisions at Sea, 1972.

1.2 Sound reception systems should, in addition to the general requirements contained in resolution A.694(17), comply with the following minimum requirements.

2 FUNCTIONAL REQUIREMENTS

2.1 Sound reception systems should be capable of:

.1 receiving sound signals from all directions in the audio band 70 Hz - 820 Hz;

.2 reproducing incoming sound signals acoustically inside the bridge;

.3 indicating the approximate direction of incoming sound signals to determine at least whether the sound signal being detected is forward or abaft of the beam and from which side of the ship it is being detected;* and

.4 suppressing unwanted background noise and allowing reception of meaningful sounds.

3 METHOD OF PRESENTATION

3.1 Incoming sound signals should be reproduced inside the bridge by means of at least one loudspeaker.

3.2 The volume should be adjusted by means of one volume control only. The volume control should be capable of being set so that the sound pressure level of an incoming signal only is at least 10 dB(A) above the bridge noise level.

3.3 There should be a display which gives a visual indication for at least 3 s of the incoming signals and their approximate direction.

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*This may be accomplished by means of at least four microphones and separate reception channels.

4 INSTALLATION

4.1 The microphones should be installed in such a way that they are as far from noise sources in the ship as is reasonably practicable and wind induced noise and mechanical vibrations are reasonably reduced.

4.2 The display should be installed so that it is visible at least from the conning position.

4.3 The loudspeaker(s) should be installed so that incoming sound signals are audible at all positions inside the bridge.

ANNEX 2

RECOMMENDATION ON PERFORMANCE STANDARDS FOR MARINE TRANSMITTING MAGNETIC HEADING DEVICES (TMHDs)

1 SCOPE

1.1 A TMHD is an electronic device which uses the geomagnetic field to obtain and transmit information about the ship's heading.

1.2 In addition to the general requirements contained in resolution A.694(17)* all marine TMHD equipment should comply with the following minimum requirements.

2 APPLICATION

2.1 A TMHD complying with the requirements contained in this recommendation, can be used to meet the carriage requirements for a suitable device providing heading information contained in Chapter V of the SOLAS Convention.

2.2 In addition such THMD can meet the dynamic requirements contained in the HSC Code chapter 13 for the carriage of a suitable device providing heading information.

3 COMPOSITION

3.1 Transmitting magnetic heading devices (TMHDs) may comprise of:

.1 a standard magnetic compass equipped with a magnetic sensor and electronics for generating a suitable output signal for other devices. The compass used should be the standard magnetic compass provided under SOLAS chapter V; or

.2 an electromagnetic compass consisting of the sensor part and electronics for generating a suitable output signal for other devices; or

.3 any type as defined under .1 and .2 additionally equipped with a rate gyro to improve dynamic performance.

4 CONSTRUCTION

4.1 Fore-and-aft mark

4.1.1 A fore-and-aft mark should be inscribed on the magnetic sensor housing, which should be installed in parallel to the ship's fore-and-aft line.

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*See also IEC Publication 60945

4.1.2 The accuracy of the fore-and-aft mark should be within ± 0.5° to the fore-and-aft direction of the housing.

4.1.3 If a rate gyro is installed it should be marked in the same way and additionally be marked with top or bottom.

4.2 **Fitting**

4.2.1 Provision should be made, in the mounting arrangements of the magnetic sensor, for correction of any misalignment, up to ± 5°, with respect to the fore-and-aft line.

4.2.2 The fitting of the sensor arrangement to the compass in paragraph 3.1 above should still enable the compass to comply with resolution A.382(X) with particular reference to accuracy, gimbling and use of the azimuth reading device.

4.3 **Compensation of deviation and heeling error**

Provision should be made to correct the deviation and heeling error and it should be possible to correct the following values:*

.1 vertical component of the ship's magnetic field (producing the heeling error): up to ±75 µT;

.2 coefficient A: up to ±3°;

.3 coefficient B: up to ±(720/H)°;

.4 coefficient C: up to ±(720/H)°;

.5 coefficient D: up to ±7°; and

.6 coefficient E: up to ± 3°,

where H is the horizontal component of the geomagnetic flux density in microteslas (µT).

4.3.1 **Indication of compensation**

The values used for electronic compensation should be indicated by adequate means and should be stored such that values are automatically recovered on switch-on.

4.3.2 **Protection of compensation**

The compensating devices should be protected against inadvertent operation.

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*See also ISO Publications 11606 and 1069

4.4 Heading output

All displays and outputs of heading should indicate true heading. An indication of any deviation and variation applied to compensate the heading should be capable of being displayed or included in the output.

4.5 Interfaces

The TMHD should be so designed to transmit heading information to other equipment. At least one output should be in accordance with the relevant international marine interface standard.*

5 PERFORMANCE

The following performance standards are required to be achieved under the conditions of a value of 18 µT of the horizontal component of the geomagnetic field and the environmental conditions experienced on board ships.**

5.1 Accuracy of heading

5.1.1 Static

The static accuracy of the heading indication should be within ± 1.0°.

5.1.2 Dynamic

The dynamic accuracy of the heading indication or output should be within ± 1.5° in addition to the static accuracy as defined. Periods of oscillation of the error should not be shorter than 30 s under the conditions of various sea states and ship's motion likely to be experienced in ships.***

5.2 Follow-up accuracy of the transmission system

The follow-up accuracy of the transmission system should be within ± 1.5°, when the sensor is rotated at a rate of 20°/s.

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*IEC Publication 61162

**See also IEC Publication 60945

***See also IEC Publication 721-3-6

6 ELECTROMAGNETIC COMPATIBILITY

The compass system, with regard to electromagnetic interference and immunity, should, in addition to resolution A.694(17), comply with resolution A.813(19).*

7 FAILURE CONDITIONS

An alarm should be provided to indicate a failure of the power supply to the compass system.

*See also IEC Publications 60945 and 533

ANNEX 3

RECOMMENDATION ON PERFORMANCE STANDARDS FOR AN INTEGRATED NAVIGATION SYSTEM (INS)

1 SCOPE

1.1 The purpose of an integrated navigation system (INS) is to provide 'added value' to the functions and information needed by the officer in charge of the navigational watch (OOW) to plan, monitor or control the progress of the ship.

1.2 The INS supports mode and situation awareness.

1.3 The INS supports safety of navigation by evaluating inputs from several independent and different sensors, combining them to provide information giving timely warnings of potential dangers and degradation of integrity of this information. Integrity monitoring is an intrinsic function of the INS.

1.4 The INS aims to ensure that, by taking human factors into consideration, the workload is kept within the capacity of the OOW in order to enhance safe and expeditious navigation and to complement the mariner's capabilities, while at the same time to compensate for their limitations.

1.5 The function of passage execution in an Integrated Bridge System (lBS), as defined by the Organization*, may be performed by an INS.

2 APPLICATION

2.1 These performance standards are applicable to any combination of navigational aids that provides functions beyond the general intent defined in the respective performance standards adopted by the Organization for individual equipment.

2.2 The purpose of these performance standards is to support the proper and safe integration of navigational equipment and information.

2.3 These performance standards define three categories of INS:

.1 INS(A) for systems that provide the minimum functional requirements of the INS including a consistent common reference system;

.2 INS(B) for systems that, in addition to the functional requirements of INS(A), provide the information needed for decision support in avoiding hazards; and

.3 INS(C) for systems that, in addition to the functional requirements of INS(B), provide the automatic control functions of heading, track or speed.

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*Resolution MSC.64(67), Annex 1- Recommendation on performance standards for Integrated Bridge Systems

3 DEFINITIONS

For the purpose of these standards the following definitions apply.

3.1 **Automatic control system** - A control system that may include a heading, track or speed control system.

3.2 **Consistent common reference system** - A sub-system of an INS for acquisition, processing, storage and distribution of data and information providing identical and obligatory reference to sub-systems within an INS.

3.3 **Integrated navigation system** - An INS is a combination of systems that are interconnected to increase safe and efficient navigation by suitably qualified personnel.

3.4 **Integrity -** Ability of the system to provide the user with information within the specified accuracy in a timely, complete and unambiguous manner, and alarms and indications within a specified time when the system should be used with caution or not at all.

3.5 **Multifunction display** - A single visual display unit that can present, either simultaneously or through a series of selectable pages, information from more than one operation of a system.

3.6 **Sensor** - A navigational aid, with or without its own display and control as appropriate, automatically providing information to the INS.

4 OPERATIONAL REQUIREMENTS

4.1 Functionality

General

4.1.1 In addition to meeting the relevant requirements of resolution A.694(17)*, the INS should comply with the requirements of these performance standards.

4.1.2 Each part of the INS should comply with all applicable requirements adopted by the Organization, including the requirements of these performance standards. Parts executing multiple operations should meet the requirements specified for each individual function they can control, monitor or perform.

4.1.3 When functions of equipment connected to the INS provide facilities in addition to these performance standards, the operation and, as far as is reasonably practicable, the malfunction of such additional facilities should not degrade the performance of the INS below the requirements of these standards.

4.1.4 A failure of one part should not affect other parts except for those functions directly dependent upon the information from the defective part.

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* See also IEC Publication 60945

Basic functions

4.1.5 An INS should combine, process and evaluate data from all sensors in use. The integrity of data from different sensors should be evaluated prior to distribution.

4.1.6 An INS should ensure that the different types of information are distributed to the relevant parts of the system, applying a 'consistent common reference system' for all types of information.

4.1.7 The INS(A) should as a minimum provide the information of position, speed, heading and time, each clearly marked with an indication of integrity.

4.1.8 The INS(B) should be able to automatically, continually and graphically indicate the ship's position, speed and heading and, where available, depth in relation to the planned route as well as to known and detected hazards.

4.1.9 The INS(C) should, in addition, provide means to automatically control heading, track or speed and monitor the performance and status of these controls.

Integrity monitoring

4.1.10 The integrity of information should be verified by comparison of the data derived independently from two or more sources if available.

4.1.11 The integrity should be verified before essential information is displayed or used. Information with doubtful integrity should be clearly marked by the INS and should not be used for automatic control systems.

Data exchange

4.1.12 Stand-alone equipment for which performance standards adopted by the Organization exist, when connected to the INS, should comply with the applicable international standards* for data exchange and interfacing.

4.1.13 Data latency should be consistent with the data requirements of the individual parts.

4.1.14 The integrity of data exchange within the INS should be ensured.

4.1.15 A failure of data exchange should not affect any independent functionality.

Integration

4.1.16 The INS should provide functional integration meeting the following requirements:

.1 where a display or control is presented on a multifunction display unit then these should be redundantly available; and

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*IEC Publication 61162

.2 validity* of the data should be provided for each part to be integrated.

Configuration control

4.1.17 It should be possible to display the complete system configuration, the available configuration and the configuration in use.

4.2 Information and accuracy

Display of information

4.2.1 The INS should be able to display the information available in accordance with paragraphs 4.1.7, 4.1.8 and 4.1.9 as applicable.

4.2.2 The INS should be capable of displaying output data available from the sensors.

4.2.3 The information should be displayed together with the indication of its source (sensor data, result of calculation or manual input), unit of measurement and status, including mode (see sub-section Integrity monitoring).

Accuracy

4.2.4 As a minimum, the accuracy of information should meet the requirements of the resolutions* adopted by the Organization. Additionally the INS should not degrade the accuracy of the data provided by the sensors.

4.3 Malfunctions, alarms and indications

Fail safe operation

4.3.1 The system's automatic response to malfunctions should result in the safest of any other configuration accompanied by clear indications and alarms.

Reversionary mode

4.3.2 The INS should allow simple and effective operator action to override or by-pass any automated functions. The INS should resume automatic functions only after an appropriate message and intended operator action, considering all necessary starting conditions.

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*Resolutions A.529(13) and A.815(19)

Alarm management

4.3.3 An alarm management system should be provided.

4.3.4 The INS alarm management system, as a minimum, should comply with the requirements of the Organization.*

4.3.5 The number of alarms should be kept as low as possible by providing indications for information of lower importance.

4.3.6 Alarms should be displayed so that the alarm reason and the resulting functional restrictions can be easily understood. Indications should be self-explanatory.

5 ERGONOMIC CRITERIA

5.1 Cognitive ergonomics

5.1 1 Integrated display and control functions should adopt a consistent human machine interface (HMI) philosophy and implementation.

5.1.2 The HMI should be so designed that the provided information is clearly understood using a consistent presentation style.

5.1.3 The HMI should be so designed that the requested manual inputs can be easily executed.

5.1.4 For manual inputs that may cause unintended results, the INS should request confirmation before acceptance, thus providing a plausibility check.

5.2 Physical ergonomics

Controls and displays

5.2.1 Particular consideration should be given to:

- symbols;
- controls; and
- layout.

Operational controls

5.2.2 The INS should be designed and implemented so that the OOW easily operates basic functions from work stations.

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*Resolution A.830(19)

Presentation of information

5.2.3 Continuously displayed information should be optimised and should include position, speed, heading and time. Supplementary information should be readily accessible.

6 DESIGN AND INSTALLATION

General

6.1 The INS should meet the relevant requirements of resolution A.694(17) and appropriate international standards*.

Failure analysis

6.2 A failure analysis** should be performed and documented for the installed configuration of the INS which includes all parts connected to or integrated into the system, including devices for manual override of automatic functions and their locations on the bridge.

Installation requirements

6.3 The INS should be installed so that it can meet the requirements of the relevant International Standards***.

Power supply requirements

6.4. Power supply requirements applying to parts of the INS as a result of other IMO requirements should remain applicable.

6.5 The INS should be supplied:

.1 from both the main and the emergency source of electrical power with automated changeover through a local distribution board with provision to preclude inadvertent shutdown; and

.2 from a transitional source of electrical power for a duration of not less than 45 s.

Power interruptions and shutdown

6.6 After a power interruption full functionality of the INS should be available after recovery of all subsystems. The INS should not increase the recovery time of individual subsystem functions after power restoration.

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*IEC Publication 60945

**See also IEC Publication 61508

***IEC Publications 92-101 and 533

6.7 If subjected to a power interruption the INS should, upon restoration of power, maintain the configuration in use and continue automated operation, as far as practicable. Safety related automatic functions, should only be restored upon confirmation by the operator.

7 INTERFACING

Interfacing to, and from, the INS should comply with international standards*, as appropriate.

8 FALL-BACK ARRANGEMENTS

8.1 The INS should, after a failure, support the availability of essential information through the use of appropriate fallback arrangements.

8.2 Normal operation, after use of a fall-back arrangement, should only be restored upon confirmation by the operator.

* IEC Publication 61162

ANNEX 4

AMENDMENTS TO THE RECOMMENDATION ON PERFORMANCE STANDARDS FOR ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEMS (ECDISs) (RESOLUTION A.817(19))

Add a new paragraph 1.9

1.9 When the relevant chart information is not available in the appropriate form (see section 4), some ECDIS equipment may operate in the Raster Chart Display System (RCDS) mode as defined in Appendix 7. Unless otherwise specified in Appendix 7, the RCDS mode of operation should conform to performance standards not inferior to those set out in this Annex.

Modify paragraph 10.5.7 as follows:

10.5.7 ECDIS should provide an alarm when the input from the position-fixing system is lost. ECDIS should also repeat, but only as an indication, any alarm or indication passed to it from a position-fixing system.

In Appendix 5, paragraph 10.5.7 change the word "indication" to "alarm".

Add a new Appendix 7 to the Annex to the resolution:

APPENDIX 7

RCDS MODE OF OPERATION

Whenever in this appendix a reference is made to provisions of the Annex related to ECDIS, ECDIS should be substituted by RCDS, SENC by SRNC and ENC by RNC, as appropriate.

All paragraphs of the Annex related to ECDIS are indicated as to whether they apply to RCDS, do not apply to RCDS, or are modified in order to apply to RCDS. These paragraphs are followed by additional requirements for ECDIS equipment in the RCDS mode.

1 INTRODUCTION

1.1 Paragraph applies to RCDS.

1.2 When operating in the RCDS mode, ECDIS equipment should be used together with an appropriate portfolio of up-to-date paper charts.

1.3-1.7 Paragraphs apply to RCDS.

1.8 RCDS should provide appropriate alarms or indications with respect to the information displayed or malfunction of the equipment (see Table 1 of this Appendix).

2 DEFINITIONS

2.1 Raster Chart Display System (RCDS) means a navigation information system displaying RNCs with positional information from navigation sensors to assist the mariner in route planning and route monitoring and, if required, display additional navigation-related information.

2.2 Raster Navigational Chart (RNC) means a facsimile of a paper chart originated by, or distributed on the authority of, a government-authorized hydrographic office. RNC is used in these standards to mean either a single chart or a collection of charts.

2.3 System Raster Navigational Chart Database (SRNC) means a database resulting from the transformation of the RNC by the RCDS to include updates to the RNC by appropriate means.

2.4-2.5 Paragraphs do not apply to RCDS.

2.6 Paragraph applies to RCDS.

3 DISPLAY OF SRNC INFORMATION

3.1 Paragraph applies to RCDS.

3.2 SRNC information available for display during route planning and route monitoring should be subdivided into two categories:

.1 the RCDS standard display consisting of RNC and its updates, including its scale, the scale at which it is displayed, its horizontal datum, and its units of depths and heights; and

.2 any other information such as mariner's notes.

3.3 Paragraph applies to RCDS.

3.4 When a RNC is displayed on the RCDS, it should provide an indication advising the mariner if a more detailed (larger scale) RNC is available for the displayed area.

3.5 It should be easy to add to, or remove from, the RCDS display any information additional to the RNC data, such as mariner's notes. It should not be possible to remove any information from the RNC.

3.6-3.7 Paragraphs do not apply to RCDS.

3.8-3.10 Paragraphs apply to RCDS.

3.11 There should always be an indication if the ECDIS equipment is operating in the RCDS mode.

4 PROVISION AND UPDATING OF CHART INFORMATION

4.1 The RNC used in RCDS should be the latest edition of that originated by, or distributed on the authority of, a government authorized hydrographic office and conform to IHO standards. RNCs not on WGS-84 or PE-90 should carry meta-data (i.e., additional data) to allow geo-referenced positional data to be displayed in the correct relationship to SRNC data.

4.2 The contents of the SRNC should be adequate and up-to-date for that part of the intended voyage not covered by ENC.

4.3-4.8 All paragraphs apply to RCDS.

5 SCALE

This section applies to RCDS.

6 DISPLAY OF OTHER NAVIGATIONAL INFORMATION

6.1-6.3 All paragraphs apply to RCDS.

7 DISPLAY MODE AND GENERATION OF THE NEIGHBOURING AREA

7.1 It should always be possible to display the RNC in "chart-up" orientation. Other orientations are permitted.

7.2-7.4 All paragraphs apply to RCDS.

8 COLOURS AND SYMBOLS

8.1 IHO recommended colours and symbols should be used to represent SRNC information.

8.2 Paragraph applies to RCDS.

8.3 Paragraph does not apply to RCDS.

8.4 Paragraph applies to RCDS.

9 DISPLAY REQUIREMENTS

9.1-9.2 Paragraphs apply to RCDS.

9.3 Paragraph does not apply to RCDS.

9.4 Paragraph applies to RCDS.

9.5 RCDS should be capable of displaying, simply and quickly, chart notes which are not located on the portion of the chart currently being displayed.

10	**ROUTE PLANNING, MONITORING AND VOYAGE RECORDING**
10.1-10.2	Paragraphs apply to RCDS.
10.3	Paragraph does not apply to RCDS.
10.4	Route Planning
10.4.1-10.4.3	Paragraphs apply to RCDS.
10.4.4-10.4.5	Paragraphs do not apply to RCDS.
10.4.6	Paragraph applies to RCDS.
10.4.7	It should be possible for the mariner to enter points, lines and areas which activate an automatic alarm. The display of these features should not degrade the SRNC information and it should be clearly distinguishable from the SRNC information.
10.5	Route monitoring
10.5.1	Paragraph applies to RCDS.
10.5.2	It should be possible to display a sea area that does not have the ship on the display (e.g. for look ahead, route planning), while route monitoring. If this is done on the display used for route monitoring, the automatic route monitoring functions in 10.4.6 and 10.4.7 should be continuous. It should be possible to return to the route monitoring display covering own ship's position immediately by single operator action.
10.5.3-10.5.4	Paragraphs do not apply to RCDS.
10.5.5-10.5.8	Paragraphs apply to RCDS.
10.5.9	The RCDS should only accept data referenced to the WGS-84 or PE-90 geodetic datums. RCDS should give an alarm if the positional data is not referenced to one of these datums.
10.5.10-10.5.13	Paragraphs apply to RCDS.
10.5.14	RCDS should allow the user to manually align the SRNC with positional data. This can be necessary, for example, to compensate for local charting errors.
10.5.15	It should be possible to activate an automatic alarm when the ship crosses a point, line, or is within the boundary of a mariner-entered feature within a specified time or distance.
10.6	Voyage recording
10.6.1-10.6.4	All paragraphs apply to RCDS.

11 ACCURACY

11.1-11.2 All paragraphs apply to RCDS.

12 CONNECTIONS WITH OTHER EQUIPMENT

12.1-12.2 All paragraphs apply to RCDS.

13 PERFORMANCE TESTS, MALFUNCTION ALARMS AND INDICATIONS

13.1-13.2 All paragraphs apply to RCDS.

14 BACK-UP ARRANGEMENTS

All paragraphs apply to RCDS.

15 POWER SUPPLY

15.1-15.2 All paragraphs apply to RCDS.

Table 1

ALARMS AND INDICATORS IN THE RCDS MODE OF OPERATION

Paragraph	Requirement	Information
10.4.6, 10.5.5	Alarm	Deviation from route
10.4.7, 10.5.15	Alarm	Approach to critical point, line, area or mariner-entered feature
10.5.7	Alarm	Positioning system failure
10.5.8	Alarm	Approach to critical point
10.5.9	Alarm	Different geodetic datum
13.2	Alarm	Malfunction of RCDS mode
3.11	Indication	ECDIS operating in the raster mode
3.4, 5.1	Indication	Information under-scale or overscale
5.2	Indication	Larger scale RNC available for the area of the vessel

The definitions of alarms and indicators are given in Appendix 5.

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ANNEX 18

DRAFT ASSEMBLY RESOLUTION

PILOT TRANSFER ARRANGEMENTS

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

NOTING the provisions of regulation V/17 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its seventieth session,

1. ADOPTS the Recommendation on Pilot Transfer Arrangements set out in the Annex to the present resolution;

2. INVITES Member Governments to draw the attention of all concerned to this Recommendation;

3. FURTHER INVITES Member Governments to ensure that pilot ladders, mechanical pilot hoists and their arrangements, use and maintenance conform to standards not inferior to those set out in the Annex to the present resolution;

4. REVOKES resolution A.257(VIII), resolution A.426(XI) and resolution A.667(16).

ANNEX

1 General

Ship designers are encouraged to consider all aspects of pilot transfer arrangements at an early stage in design. Equipment designers and manufacturers are similarly encouraged, particularly with respect to the provisions of paragraphs 2.1.1.3, 3.1 and 3.3.

2 Pilot ladders

2.1 Position and construction

2.1.1 The securing strongpoints, shackles and securing ropes should be at least as strong as the side ropes specified in 2.2 below.

2.1.2 The steps of the pilot ladders should comply with the following requirements:

.1 if made of hardwood, they should be made in one piece, free of knots;

.2 if made of material other than hardwood, they should be of equivalent strength, stiffness and durability to the satisfaction of the Administration;

.3 the four lowest steps may be of rubber of sufficient strength and stiffness or other material to the satisfaction of the Administration;

.4 they should have an efficient non-slip surface;

.5 they should be not less than 400 mm between the side ropes, 115 mm wide and 25 mm in depth, excluding and non-slip device or grooving;

.6 they should be equally spaced not less than 300 mm or more than 380 mm apart; and

.7 they should be secured in such a manner that each will remain horizontal.

2.1.3 No pilot ladder should have more than two replacement steps which are secured in position by a method different from that used in the original construction of the ladder, and any steps so secured shall be replaced as soon as reasonably practicable by steps secured in position by the method used in the original construction of the pilot ladder. When any replacement step is secured to the side ropes of the pilot ladder by means of grooves in the sides of the step, such grooves should be in the longer sides of the step.

2.1.4 Pilot ladders with more than five steps should have spreader steps not less than 1.8 m long provided at such intervals as will prevent the pilot ladder from twisting. The lowest spreader step should be the fifth step from the bottom of the ladder and the interval between any spreader step and the next should not exceed nine steps.

2.2 Ropes

2.2.1 The side ropes of the pilot ladder should consist of two uncovered ropes not less than 18 mm in diameter on each side and be continuous with no joins below the top step.

2.2.2 Side ropes should be made of manila or other material of equivalent strength, durability and grip which has been protected against actinic degradation and is satisfactory to the Administration.

3 Accommodation ladders used in conjunction with pilot ladders

3.1 Equally safe arrangements which might be more suitable for special types of ships may be accepted.

3.2 The length of the accommodation ladder should be sufficient to ensure that its angle of slope does not exceed 55°.

3.3 The lower platform of the accommodation ladder should be in a horizontal position when in use.

3.4 Intermediate platforms, if fitted, should be self-levelling. Treads and steps of the accommodation ladder should be so designed that an adequate and safe foothold is given at the operative angles.

3.5 The ladder and platform should be equipped on both sides with stanchions and rigid handrails, but if handropes are used they should be tight and properly secured. The vertical space between the handrail or handrope and the stringers of the ladder should be securely fenced.

3.6 The pilot ladder should be rigged immediately adjacent to the lower platform of the accommodation ladder and the upper end should extend at least 2 m above the lower platform.

3.7 If a trapdoor is fitted in the lower platform to allow access from and to the pilot ladder, the aperture should not be less than 750 mm x 750 mm. In this case the after part of the lower platform should also be fenced as specified in paragraph 3.5 above, and the pilot ladder should extend above the lower platform to the height of the handrail.

3.8 Accommodation ladders, together with any suspension arrangements or attachments fitted and intended for use in accordance with this recommendation, should be to the satisfaction of the Administration.

4 Mechanical pilot hoists

4.1 Location and maintenance

4.1.1 From a standing position at the control point, it should be possible for the operator to have the hoist under observation continuously between its highest and lowest working positions.

4.1.2 There should be on board a copy of the manufacturer's maintenance manual, approved by the Administration, which contains a maintenance log book. The hoist should be kept in good order and maintained in accordance with the instructions of the manual.

4.1.3 A record of maintenance and repairs of the hoist should be entered in the maintenance log book by the officer responsible for its maintenance.

4.2 Construction of hoist

4.2.1 The working load of a hoist should be the sum of the weight of the hoist ladder or lift platform and falls in the fully lowered condition and the maximum number of persons which the hoist is designed to carry, the weight of each person being taken as 150 kg. The maximum complement a hoist is permitted to carry should be clearly and permanently marked on the hoist.

4.2.2 Every hoist should be of such construction that, when operating under the working load determined in accordance with paragraph 4.2.1, each component has an adequate factor of safety having regard to the material used, the method of construction and the nature of its duty:

.1 the average lifting and lowering speeds should be between 15 m/min and 21 m/min when the pilot hoist is carrying its full working load;

.2 the pilot hoist should be capable of lifting, lowering, and stopping when carrying 2.2 times its working load.

4.2.3 In selecting the materials of construction, regard should be paid to the conditions under which the hoist will be required to operate.

4.2.4 Any electrical appliance associated with the ladder section of the hoist should not be operated at a voltage exceeding 25 V.

4.2.5 The hoist should consist of the following main parts:

.1 a mechanically powered winch;

.2 two separate falls;

.3 a ladder or platform consisting of two parts;

.3.1 a rigid upper part for the transportation of any person upwards or downwards;

.3.2 a flexible lower part, consisting of a short length of pilot ladder, which enables any person to climb from the pilot launch or tender to the rigid upper part of the ladder and vice versa.

4.3 Mechanically powered winch

4.3.1 The source of power for the winches should be electrical, hydraulic or pneumatic. In the case of a pneumatic system, an exclusive air supply should be provided with adequate arrangements to control its quality. In the case of ships engaged in the carriage of flammable cargoes, the source of power should not be such as to cause a hazard to the ship. All systems should be capable of efficient operation under the conditions of vibration, humidity and range of temperature likely to be experienced in the ship in which they are installed.

4.3.2 The winch should include a brake or other equally effective arrangement (such as a properly constructed worm drive) which is capable of supporting the working load in the event of power failure. The brake or other arrangement should be capable of supporting the working load when the hand gear is in use.

4.3.3 Any crank handle provided for manual operation should, when engaged, be so arranged that the power supply is automatically cut off.

4.3.4 Efficient arrangements should be provided to ensure that the falls wind evenly on to the winch-drums.

4.4 Controls

4.4.1 Hoists should be fitted with automatic safety devices in order to cut off the power supply when the ladder comes against any stop so as to avoid overstressing the falls or any other part of the hoist: provided that in the case of hoists operated by pneumatic power, the safety cut-out device may be omitted if the maximum torque available from the air motor cannot result in overstressing of the falls or other parts of the hoist.

4.4.2 All hoist controls should incorporate an emergency stop to cut off the power supply and, in addition, an emergency stop switch within easy reach of the person or persons carried.

4.4.3 The hoist controls should be clearly and durably marked to indicate "lift", "stop" and "lower". The manner in which these controls operate should correspond to the manner in which the hoist operates and should automatically return to the "stop" position when released.

4.4.4 A portable hoist should be equipped with an interlock that prevents operation of the hoist when the hoist is not correctly installed.

4.5 Falls

4.5.1 Two separate wire falls should be used, made of flexible steel rope of adequate strength and resistant to corrosion in a salt-laden atmosphere.

4.5.2 The falls should be securely attached to the winch-drums and the ladder. These attachments should be capable of withstanding a proof load of not less than 2.2 times the load on such attachments. The falls should be maintained at a sufficient relative distance from one another, so as to reduce the possibility of the ladder becoming twisted.

4.5.3 The falls should be of sufficient length to allow for all conditions of freeboard likely to be encountered in service and to retain at least three turns on the winch-drums with the hoist in its lowest position.

4.5.4 The falls should be so arranged that the ladder or lift platform remains level if one fall breaks.

4.5.5 A minimum safety factor of 6 should be applied to the falls. The devices for attaching the falls to the winch should be capable of supporting 2.2 times the working load with the falls run all the way out.

4.6 Ladder or platform section

4.6.1 The rigid ladder part should be not less than 2.50 m in length and be equipped in such a way that the person carried can maintain a safe position whilst being hoisted or lowered. Such part should be provided with:

.1 a sufficient number of steps to provide a safe and easy access to and from the platform referred to in paragraph 4.6.2;

.2 safe handholds capable of being used under all conditions including extremes of temperature, together with non-slip steps;

.3 a spreader at the lower end of not less than 1.80 m. The ends of the spreader should be provided with rollers which should roll freely on the ship's side during the whole operation of embarking or disembarking;

.4 an effective guard ring, suitably padded, so positioned as to provide physical support for the person carried without hampering movement;

.5 adequate means for communication between the person carried and the operator and the responsible officer who supervises the embarkation or disembarkation of the person carried.

4.6.2 A hoist designed to operate as a lift platform should have a platform:

.1 with a non-slip surface at least 750 mm by 750 mm exclusive of the surface area of any trap door in the floor;

.2 limited to one person per square metre of floor area or fraction thereof, exclusive of the area of any trapdoor;

.3 with a trapdoor, if provided, at least 750 mm by 750 mm, so arranged that a pilot ladder may be rigged through the trapdoor, extending above the platform to the height of the handrail;

.4 enclosed by a guard-rail at least 1 m above the surface of the platform. At least two intermediate rails should be provided between the floor and the guard-rail. The rails should be set back from the edge of the platform at least 50 mm. Each gate in the rails should have a latch that can keep the gate securely closed.

4.6.3 Below the rigid part mentioned in paragraph 4.6.1, a section of flexible ladder comprising eight steps should be provided and constructed in accordance with the requirements of section 2, except that it need not be equipped with spreader steps; however, it should have appropriate fittings at the top for securing it to the rigid ladder.

4.6.4 The side ropes of the flexible ladder section should be in accordance with section 2.2. Each rope should be continuous with no joins below the top step.

4.6.5 The steps of the flexible ladder section and those of the rigid ladder section should be in the same vertical line, of the same width, spaced vertically equidistant and placed as close as practicable to the ship's side. The handholds of both parts of the ladder section should be aligned as closely as possible.

4.6.6 If belting is fitted in way of the hoist position, such belting should be cut back sufficiently to allow the hoist to be placed as close as practicable to the ship's side.

4.7 Operation of the hoist

4.7.1 Rigging, testing and use of the hoist should be supervised by a responsible officer of the ship. Any person engaged in rigging and operating the hoist should have been instructed in the rigging and operating procedures as contained in the approved manual and the equipment should be tested prior to use.

4.7.2 Lighting should be provided so that the hoist overside, its controls and the position on the ship where the person carried embarks or disembarks is adequately lit. The equipment specified in subsection 2.3 should be kept at hand ready for use.

4.7.3 A pilot ladder complying with the provisions of section 2 should be rigged adjacent to the hoist and available for immediate use so that access to it is available from the hoist during any point of its travel. The pilot ladder should be capable of reaching the sea level from its own point of access to the ship.

4.7.4 The position on the ship's side where the hoist will be lowered should be indicated.

4.7.5 An adequate protected stowage position should be provided for the portable hoist. In very cold weather, to avoid the danger of ice formation, the portable hoist should not be rigged until use is imminent.

4.7.6 The assembly and operation of the pilot hoist should form part of the ship's routine drills.

4.8 Testing

4.8.1 Every new hoist should be subjected to an overload test of 2.2 times the working load. During this test the load should be lowered a distance of not less than 5 m and the brake applied to stop the hoist drum. Where a winch is not fitted with a brake, and depends upon an equally effective arrangement, as prescribed in paragraph 4.3.2, to support the load in the event of power failure, the load should be lowered at the maximum permitted lowering speed and a power failure should be simulated to show that the hoist will stop and support the load.

4.8.2 An operating test of 10 % overload should be carried out after installation on board the ship to the satisfaction of the Administration.

4.8.3 Subsequent examinations of the hoists under working conditions should be made at each annual or intermediate survey and at each renewal survey for the ship's safety equipment certificate.

5 Access to deck

Means should be provided to ensure safe, convenient and unobstructed passage for any person embarking on, or disembarking from, the ship between the head of the pilot ladder, or of any accommodation ladder or other appliance provided pursuant to paragraph 4.2.4 above and the ship's deck. Where such passage is by means of:

.1 a gateway in the rails or bulwark, adequate handholds should be provided;

.2 a bulwark ladder, such ladder should be securely attached to the ship to prevent overturning. Two handhold stanchions should be fitted at the point of embarking on or disembarking from the ship on each side which should be not less than 0.7 m or more than 0.8 m apart. Each stanchion should be rigidly secured to the ship's structure at or near its base and also at a higher point, should be not less than 32 mm in diameter and should extend not less than 1.2 m above the top of the bulwarks. Stanchions or handrails should not be attached to the bulwark ladder.

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ANNEX 19

PROPOSED AMENDMENTS TO SOLAS REGULATIONS V/5 AND V/6 AND PROPOSED REGULATIONS FOR THE MANAGEMENT, OPERATION AND FINANCING OF THE NORTH ATLANTIC ICE PATROL

PROPOSED AMENDMENTS TO SOLAS REGULATIONS V/5 AND V/6

CHAPTER V
SAFETY OF NAVIGATION

Regulations 5 and 6 - Ice Patrol

The existing regulations 5 and 6 are replaced by the following:

"Regulation 6 - Ice Patrol Service

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 south-eastern, southern and south-western limits of the region of icebergs in the vicinity of the Grand Banks of Newfoundland shall be guarded for the purpose of informing passing ships of the extent of this dangerous region; for the study of ice conditions in general; and for the purpose of affording assistance to ships and crews requiring aid within the limits of operation of the patrol ships and aircraft. During the rest of the year the study and observation of ice conditions shall be maintained as advisable.

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 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 Regulations for the management, operation and financing of the North Atlantic Ice Patrol which shall be adopted, amended and brought into force in accordance with Article VIII(b) of the Convention for amendments to the Annex other than Chapter I of the present Convention.

6 If, at any time, the United States and or Canadian Governments should desire, it may discontinue providing these services, 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."

PROPOSED REGULATIONS FOR THE MANAGEMENT, OPERATION AND FINANCING OF THE NORTH ATLANTIC ICE PATROL

The following Regulations are adopted by the Organization:

"MANAGEMENT, OPERATION AND FINANCING OF
THE NORTH ATLANTIC ICE PATROL

1 In these Regulations:

.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 through or north of the Straits of Gibraltar (except steamer 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 (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 steamer 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 (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^{0}23'N, 59^{0}25'W	J-	39^{0}49'N, 41^{0}00'W
B-	41^{0}23'N, 57^{0}00'W	K-	40^{0}39'N, 39^{0}00'W
C-	40^{0}47'N, 55^{0}00'W	L-	41^{0}19'N, 38^{0}00'W
D-	40^{0}07'N, 53^{0}00'W	M-	43^{0}00'N, 37^{0}27'W
E-	39^{0}18'N, 49^{0}39'W	N-	44^{0}00'N, 37^{0}29'W
F-	38^{0}00'N, 47^{0}35'W	O-	46^{0}00'N, 37^{0}55'W
G-	37^{0}41'N, 46^{0}40'W	P-	48^{0}00'N, 38^{0}28'W
H-	38^{0}00'N, 45^{0}33'W	Q-	50^{0}00'N, 39^{0}07'W
I-	39^{0}05'N, 43^{0}00'W	R-	51^{0}25'N, 39^{0}45'W.

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

2 Each Contracting Government whose ships pass through the region of icebergs during the ice season shall reimburse the Government of the United States for 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 shall be based on the ratio which the total gross tonnage of that contracting Government's ships passing through the region of icebergs guarded by the Ice Patrol during the previous three ice seasons bears to the combined total gross tonnage of all ships of all Contracting Governments' ships that passed through the region of icebergs guarded by the Ice Patrol during the previous three ice seasons. This ratio shall be computed annually, and shall be expressed in terms of a lump sum per-annum fee. The Governments of the United States and Canada are authorized to use the procedures described in paragraphs 3 and 4 for ships flying the flag of Contracting Governments that do not reimburse the Government of the United States within a reasonable time.

3 Where a Contracting Government considers it necessary, it may elect to have these costs collected from each of its flag ships using the services of the Ice Patrol. In such a case the Contracting Government shall so notify the Government of the United States of that election prior to January 1 of each year. In the absence of a new election prior to January 1, the billing method used during the previous ice season shall remain in use. The Governments of the United States and Canada are authorized to collect fees from each ship that benefits from the services of the Ice Patrol at the time such ship departs the last United States or Canadian port of call prior to transit by that ship through the region of icebergs guarded by the Ice Patrol and/or at the time such ship first arrives at a United States or Canadian port following transit by that ship through the region of icebergs guarded by the Ice Patrol.

4 All fees shall be based on the basis of gross tonnage, and shall be based on the ratio of the average actual cost incurred by the Governments of the United States and Canada of managing and operating ice patrol services during the previous three years to the average annual gross tonnage passing through the region of icebergs guarded by the Ice Patrol during the same three years. The cost of collecting the fees referred to in paragraph 3 above shall be included in calculating the amount of those fees.

5 The Government of the United States shall furnish annually to each Contracting Government a statement of the total cost incurred by the Governments of the United States 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 Contracting Government.

6 The managing Government shall publish annual accounts including a statement of costs incurred by the governments providing the services for the past three years; the total gross tonnage using the service for the past three years; and the associated cost per ton to be charged to individual ships the following year. The accounts shall be publicly available. Within three months after having received the cost statement, Contracting Governments may request more detailed information regarding the costs incurred in managing and operating the Ice Patrol."

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ANNEX 20

WORK PROGRAMMES OF THE SUB-COMMITTEES

SUB-COMMITTEE ON BULK LIQUIDS AND GASES (BLG)

		Target completion date/number of sessions needed for completion	Reference
1	**Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments**	Continuous	BLG 1/20, section 3; BLG 3/18, section 12
2	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	**Additional safety measures for tankers** .1 **revision of MSC/Circ.353 as amended by MSC/Circ.387** .2 **revision of MSC/Circ.677**	1999	MSC 63/23, paragraph 18.4; BLG 3/18, section 3
H.2	**Tanker pump-room safety**	1999	BLG 1/20, paragraphs 4.12 to 4.14; BLG 3/18, section 4
H.3	**Matters related to the probabilistic methodology for oil outflow analysis**	1999	BLG 1/20 paragraphs 8.7 to 8.11; BLG 3/18, paragraph 5.10

Notes: 1 "H" means a high priority item and "L" means a low priority item. However, within the high and low priority groups, items have not been listed in any order of priority.

2 Items printed in bold letters have been selected for the provisional agendas for the forthcoming sessions of the Sub-Committees

Sub-Committee on Bulk Liquids and Gases (BLG) (continued)

			Target completion date/number of sessions needed for completion	Reference
H.4	**Review of Annexes I and II of MARPOL 73/78**		2002	BLG 1/20, section 9; BLG 3/18, section 6
H.5	Environmental and safety aspects of alternative tanker designs under MARPOL 73/78 regulation I/13F			BLG 3/18, paragraph 15.7
	.1	development of the final guidelines	2 sessions	BLG 1/20, paragraph 8.15
	.2	assessment of the alternative tanker designs	Continuous	BLG 1/20, section 16
H.6	**Revision of carriage requirements for carbon disulphide in the IBC Code**		1999	MSC 66/24, paragraph 21.29; BLG 3/18, section 7
H.7	**Requirements for personnel protection involved in the transportation of cargoes containing toxic substances in oil tankers**		2000	BLG 1/20, section 12; BLG 3/18, section 8
H.8	**Alignment of the cargo hose requirements in the IBC, BCH, IGC and GC Codes**		2000	MSC 68/23, paragraph 20.8; BLG 3/18, paragraph 15.7
L.1	**Review of existing ships' safety standards**: **amendments to SOLAS regulations VII/9 and VII/12**		1999	MSC 65/25, paragraphs 21.6 to 21.8; BLG 3/18, section 9
L.2	**Review of specifications for crude oil washing systems**		1999	BLG 1/20, paragraph 9.7; BLG 3/18, section 10

Sub-Committee on Bulk Liquids and Gases (BLG) (continued)

		Target completion date/number of sessions needed for completion	Reference
L.3	**Development of a code on polar navigation** (co-ordinated by DE)	1999	MSC 68/23, paragraph 20.4; MSC 69/22, paragraph 20.13; BLG 3/18, paragraphs 17.3 to 17.5
L.4	**Application of MARPOL requirements to FPSOs and FSUs**	2001	MEPC 41/20, paragraph 7.7; MSC 69/22, paragraph 20.8.1; BLG 3/18, paragraphs 15.3 to 15.5

SUB-COMMITTEE ON DANGEROUS GOODS, SOLID CARGOES AND CONTAINERS (DSC)

		Target completion date/number of sessions needed for completion	Reference
1	**Harmonization of the IMDG Code with the UN Recommendations on the Transport of Dangerous Goods**	Continuous	MSC 63/23, paragraph 10.6
2	**Reports on incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas**	Continuous	CDG 45/22, section 11 and paragraph 20.2
3	**Amendments to the BC Code including evaluation of properties of solid bulk cargoes**	Continuous	BC 34/17, section 3; DSC 2/16, paragraph 16.2.5.1
4	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	**Amendment 30-99 to the IMDG Code, its annexes and supplements (EmS, MFAG)**	1999	DSC 3/15, paragraph 12.6
H.2	**Implementation of Annex III of MARPOL 73/78**	1999	DSC 3/15, paragraph 12.6
H.3	**Amendments to SOLAS chapters VI and VII and MARPOL Annex III to make the IMDG Code mandatory**	2000	MSC 63/23, paragraph 22.29; MSC 66/24, paragraphs 4.31 and 9.28; MSC 68/23, paragraph 20.14, MSC 70/23, paragraph 20.7
H.4	**Revision of the format of the IMDG Code**	1999	MSC 66/24, paragraph 9.15
H.5	Cargo Securing Manual	1 session	MSC 66/24, paragraphs 9.34 and 21.34

Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.6	**Implementation of IMO instruments and training requirements for cargo-related matters**		
	.1 **revision of resolution A.537(13)**	2000	DSC 3/15, paragraph 12.5
	.2 **development of an instrument for multimodal training requirements**	1999	DSC 2/16, paragraph 13.10
H.7	**Revision of the Emergency Schedules (EmS)**	2002	DSC 3/15, paragraph 3.2.21
H.8	**Review of the BC Code**	2002	DSC 3/15, paragraph 12.7; MSC 69/22, paragraph 20.15
H.9	**Ventilation requirements for packaged dangerous goods** (in co-operation with FP)	2000	MSC 69/22, paragraph 20.16
H.10	**Mandatory application of the INF Code**	1999	MSC 69/22, paragraph 20.17
L.1	Guidelines for the development of shipboard and emergency plans for marine pollutants	1 session*	CDG 42/22, section 9 and paragraph 20.2; DSC 2/16, paragraph 16.2.5.3

* To be decided by the MEPC

SUB-COMMITTEE ON FIRE PROTECTION (FP)

		Target completion date/number of sessions needed for completion	Reference
1	**Analysis of fire casualty records**	Continuous	FP 42/16, section 12
H.1	**Comprehensive review of SOLAS chapter II-2**	2000	FP 39/19, paragraphs 6.9 to 6.11; FP 42/16, section 6
H.2	Smoke control and ventilation	1 session	FP 39/19, section 9
H.3	**Fire-fighting systems in machinery and other spaces**	1999	MSC 64/22, paragraphs 7.27 and 19.35; FP 42/16, section 8
H.4	**Ro-ro ferry safety: recommendation on evacuation analysis under SOLAS regulation II-2/28-1.3**	1999	MSC 66/24, paragraph 21.38; FP 42/16, section 3
H.5	**Revision of fire safety aspects of the HSC Code**	1999	MSC 66/24, paragraph 21.27; FP 42/16, section 11
H.6	**Fixed fire detection and fire alarm systems**	1999	MSC 66/24, paragraph 6.19; FP 42/16, paragraph 13.3.4.1
H.7	**Prohibition of the use of asbestos on board new ships**	2000	MSC 68/23, paragraph 20.7; FP 42/16, paragraphs 2.6 to 2.9 and 13.3.4.2
H.8	**Prohibition of the use of PFCs in shipboard fire-extinguishing systems**	2000	MEPC 41/20, paragraph 8.14; MSC 69/22, paragraph 20.20

Sub-Committee on Fire Protection (FP) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.9	**Ventilation requirements for packaged dangerous goods** (co-ordinated by DSC)	2000	MSC 69/22, paragraph 20.21
L.1	**Role of the human element: revision of resolution A.654(16) on Graphical symbols for fire control plans**	1999	FP 39/19, paragraphs 13.7 to 13.10; FP 42/16, paragraph 13.3.4.3
L.2	Fire retardant materials for the construction of fishing vessel lifeboats	1 session	FP 38/24, paragraph 2.5.3
L.3	**Development of a code on polar navigation** (co-ordinated by DE)	2000	MSC 68/23, paragraph 20.4; FP 42/16, paragraph 13.3.4.4
L.4	**Unified interpretations of SOLAS chapter II-2**	2000	FP 38/24, annex 6; FP 42/16, section 7

SUB-COMMITTEE ON FLAG STATE IMPLEMENTATION (FSI)

			Target completion date/number of sessions needed for completion	Reference
1	**Reporting on non-compliance with IMO instruments**		Continuous	FSI 6/12, section 5
	.1	**deficiency reports**	Continuous	MSC 67/22, paragraph 6.3 FSI 6/12, paragraph 5.1 to 5.14
	.2	**mandatory reports under MARPOL 73/78**	Continuous	FSI 6/12, paragraphs 5.15 to 5.17
	.3	**analysis and evaluation of reports**	Continuous	FSI 6/12, paragraph 5.13**,** MSC 70/23, paragraph 20.12.1
2	**Casualty statistics and investigations**		Continuous	FSI 6/12, section 6; MSC 68/23, paragraphs 7.16 to 7.24
	.1	**review of the Guidelines on investigation of human factors in marine casualties and incidents**	1999	MSC 69/22, paragraph 20.35**;** FSI 6/12, paragraphs 6.20 and 6.21**;** MSC 70/23, paragraph 20.12.2
3	**Port State control**		Continuous	FSI 6/12, section 7; MSC 68/23, paragraphs 7.10 to 7.15
	.1	**regional co-operation**	Continuous	FSI 6/12, paragraphs 7.1 to 7.5
	.2	**results of inspections**	Continuous	FSI 6/12, paragraphs 7.6 to 7.9

Sub-Committee on Flag State Implementation (FSI) (continued)

			Target completion date/number of sessions needed for completion	Reference
	.3	**review of resolution A.787(19)**	1999	MSC 69/22, paragraph 20.29; FSI 6/12, paragraphs 7.9 to 7.11 and 7.26 to 7.34
	.4	**mandatory reporting procedures on port State control detentions**	1999	MSC 68/23, paragraph 20.31; FSI 6/12, paragraph 7.12 to 7.21
	.5	**PSC on seafarers' working hours**	1999	FSI 6/12, paragraphs 7.23 and 7.24**;** MSC 70/23, paragraph 20.12.3
4	**Technical assistance**		Continuous	FSI 6/12, section 8; MSC 68/23, paragraphs 12.1 to 12.7
5	**Monitoring of actions taken by the Sub-Committee**		Continuous	FSI 4/18, section 12
6	**Survey and certification**		Continuous	FSI 6/12, section 4
	.1	**guidelines for unscheduled inspections of ro-ro passenger ships**	2000	MSC 68/23, paragraph 7.26; FSI 6/12, paragraphs 4.9 to 4.12 and 4.22 to 4.24
	.2	**revision of Survey Guidelines (resolution A.746(18)) and Guidelines on surveys (resolution A.560(14))**	2000	MSC 69/22, paragraph 10.9; FSI 6/12, paragraphs 4.4 to 4.8 and 4.18 to 4.21

Sub-Committee on Flag State Implementation (FSI) (continued)

			Target completion date/number of sessions needed for completion	Reference
	.3	**service intervals of life-saving appliances and radiocommunication equipment**	1999	MSC 68/23, paragraph 20.30; MSC 69/22, paragraph 3.9; FSI 6/12, paragraph 4.7
(L)	.4	**introduction of the HSSC into MARPOL Annex VI on prevention of air pollution**	2000	MEPC 41/20, paragraph 8.22.1; MSC 69/22, paragraph 20.28
H.1	**Implementation of IMO instruments**			FSI 6/12, section 3
	.1	**responsibilities of Governments and measures to encourage flag State compliance**	1999	MSC 68/23, paragraphs 7.2 to 7.8**;** FSI 6/12, paragraphs 3.11 to 3.34
	.2	**comprehensive analysis of difficulties encountered in the implementation of IMO instruments**	2000	MSC 69/22, paragraph 20.28; FSI 6/12, paragraph 9.2
H.2	**Implications arising when a vessel loses the right to fly the flag of a State**		1999	MSC 68/23, paragraph 7.7; FSI 6/12, paragraphs 11.1 and 11.2; MSC 70/23, paragraph 22.12.4

SUB-COMMITTEE ON RADIOCOMMUNICATIONS AND SEARCH AND RESCUE (COMSAR)

			Target completion date/number of sessions needed for completion	Reference
1	**Global Maritime Distress and Safety System (GMDSS)**			COMSAR 3/14, section 3
	.1	**matters relating to the GMDSS Master Plan**	Continuous	COMSAR 3/14, section 3
	.2	replies to questionnaire on casualties	Continuous	COMSAR 1/30, paragraphs 3.15 to 3.16
	.3	**exemptions from radio requirements**	Continuous	COMSAR 1/30, paragraph 3.17
2	Promulgation of maritime safety information (MSI) (in co-operation with ITU, IHO, WMO and Inmarsat)			
	.1	**operational and technical co-ordination provisions of Maritime Safety Information (MSI) services**	Continuous	COMSAR 3/14, section 3
3	**ITU World Radiocommunication Conference matters**		Continuous	COMSAR 3/14, section 6
4	**Radiocommunication ITU-R Study Group 8 matters**		Continuous	COMSAR 3/14, section 6
5	**Satellite services (Inmarsat and COSPAS-SARSAT)**		Continuous	COMSAR 3/14, section 7
6	**Matters concerning search and rescue, including those related to the 1979 SAR Conference and the introduction of the GMDSS**			
	.1	**harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters**	1999	COMSAR 3/14, section 9

Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) (continued)

			Target completion date/number of sessions needed for completion	**Reference**
	.2	**plan for the provision of maritime SAR services, including procedures for routeing distress information in the GMDSS**	Continuous	COMSAR 3/14, section 9
	.3	**revision of the IMOSAR and MERSAR manuals**	1999	COMSAR 2/13, section 9.3
7	**Emergency radiocommunications: false alerts and interference**		1999	COMSAR 3/14, section 8
8	Casualty analysis (co-ordinated by FSI)		Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	Work consequential to the 1988 GMDSS Conference			MSC 66/24, paragraphs 10.6 to 10.8 and 21.52; COMSAR 1/30, section 4
	.1	**review of SOLAS regulation IV/15.7 and resolution A.702/(17) on Radio maintenance guidelines for the GMDSS related to sea areas A3 and A4**	1999	COMSAR 1/30, paragraphs 4.32 to 4.36
	.2	review of the locating functions in the GMDSS	1 session	COMSAR 1/30, paragraph 4.26
H.2	VTS and automatic ship identification transponder/transceiver systems (co-ordinated by NAV)		1 session	MSC 66/24, paragraph 21.24.2; COMSAR 1/30, paragraphs 8.6 to 8.8
H.3	IMO Standard Marine Communication Phrases (co-ordinated by NAV)		1 session	COMSAR 1/30, section 23

Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.4	**Ro-ro ferry safety: low-powered radio homing devices for liferafts** (in co-operation with DE)	1999	MSC 66/24, paragraph 21.24.1; COMSAR 3/14, paragraph 5.5
H.5	Review of the Joint IMO/IHO/WMO MSI Manual	1 session	COMSAR 1/30, paragraph 5.9; COMSAR 3/14, paragraph 11.4.4.1
H.6	**Revision of the HSC Code** (co-ordinated by DE)	1999	MSC 66/24, paragraph 21.27; COMSAR 3/14, section 10
L.1	Safety of passenger submersible craft (co-ordinated by DE)	1 session	COMSAR 1/30, section 25
L.2	**Development of a code on polar navigation** (co-ordinated by DE)	2000	MSC 68/23, paragraph 20.4; COMSAR 3/14, paragraph 11.4.5.2
L.3	Development of criteria for general communications	2 sessions	COMSAR 3/14, paragraph 11.4.2.1; MSC 69/22, paragraph 20.36

SUB-COMMITTEE ON SAFETY OF NAVIGATION (NAV)

		Target completion date/number of sessions needed for completion	Reference
1	**Routeing of ships, ship reporting and related matters**	Continuous	MSC 69/22, paragraphs 5.2 to 5.62 and 20.41 to 20.42; NAV 44/14, section 3
2	**ITU matters, including Radiocommunication ITU-R Study Group 8 matters**	Continuous	MSC 69/22, paragraphs 5.69 to 5.70; NAV 44/14, paragraphs 8.1 to 8.5
3	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	**Revision of SOLAS chapter V**	1999	MSC 69/22, paragraphs 5.71 to 5.73; NAV 44/14, paragraphs 5.1 to 5.38
H.2	**Ergonomic criteria for bridge equipment and layout**	1999	NAV 43/15, paragraphs 6.1 to 6.3; MSC 69/22, paragraphs 20.48, 21.32 and 21.39
H.3	IMO standard marine communication phrases (in co-operation with COMSAR and STW)	1 session*	MSC 68/23, paragraphs 2.3 to 2.5
H.4	**World-wide radio navigation system**	2001	MSC 69/22, paragraphs 5.65 and 20.43; NAV 44/14, paragraphs 7.1 to 7.12

* The item is scheduled to be finalized in 2000

Sub-Committee on Safety of Navigation (NAV) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.5	**Performance standards for night vision equipment for high-speed craft**	1999	MSC 68/23, paragraph 20.46; NAV 44/14, paragraphs 7.34 and 7.35
H.6	**Amendments to the COLREGs**	2000	MSC 69/22, paragraph 20.46; NAV 44/14, paragraphs 4.1 to 4.10;
H.7	**Training and certification of maritime pilots and revision of resolution A.485(XII)**(co-ordinated by STW)	1999	MSC 69/22, paragraph 20.47; NAV 44/14, paragraphs 13.7 to 13.9
H.8	**Review of performance standards for shipborne satellite radionavigational receivers**	2000	NAV 44/14, paragraph 7.2; MSC 70/23, paragraph 20.17.1
L.1	Performance standards for navigation systems and equipment		NAV 44/14, paragraphs 7.26 to 7.35
	.1 **performance standards for daylight signalling lamps**	1999	MSC 67/22, paragraph 19.25; NAV 44/14, paragraphs 7.34 to 7.35
L.2	**Safety of passenger submersible craft** (co-ordinated by DE)	1999	NAV 44/14, paragraphs 13.5 and 13.6
L.3	Development of a code on polar navigation (co-ordinated by DE)	2000	MSC 69/22, paragraph 20.51; NAV 44/14, paragraphs 13.4 to 13.17

Sub-Committee on Safety of Navigation (NAV) (continued)

		Target completion date/number of sessions needed for completion	**Reference**
L.4	Integrated bridge systems (IBS) operational aspects	2 sessions	NAV 44/14, paragraph 7.26; MSC 70/23, paragraph 20.17.2
L.5	User requirements for heading systems	1 session	NAV 44/14, paragraph 7.31; MSC 70/23, paragraph 20.17.3
L.6	Comprehensive review of chapter 13 of the HSC Code	2 sessions	NAV 44/14, paragraph 10.4; MSC 70/23, paragraph 20.17.4

SUB-COMMITTEE ON SHIP DESIGN AND EQUIPMENT (DE)

		Target completion date/number of sessions needed for completion	Reference
1	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	Low-powered radio homing devices for liferafts on ro-ro passenger ships (co-ordinated by COMSAR)	1 session	MSC 66/24, paragraph 21.24.1; DE 41/17, section 4
H.2	**Revision of the HSC Code** (in co-operation with FP, COMSAR, NAV and SLF)	1999	MSC 66/24, paragraph 21.27; DE 41/17, section 5
H.3	**Emergency towing arrangements for tankers**	1999	MSC 68/23, paragraph 20.56; DE 41/17, section 13
H.4	**Prohibition of the use of asbestos on board new ships**	2000	MSC 68/23, paragraph 20.7; DE 41/17, paragraphs 16.16 to 16.20
H.5	**Guidelines on helicopter landing areas** (in co-operation with COMSAR)	1999	MSC 68/23, paragraph 9.8; DE 41/17, paragraphs 16.4 to 16.10
H.6	Development of a code on polar navigation (in co-operation with BLG, FP, COMSAR, NAV, SLF, STW and MEPC)	1 session	MSC 68/23, paragraph 20.4; DE 41/17, section 10
H.7	**Guidelines under MARPOL Annex VI on prevention of air pollution from ships**	2003	MEPC 41/20, paragraph 8.22.1; MEPC 41/WP.5, paragraph 24.4
	.1 guidelines on representative samples of the fuel delivered for use on board ships		

Sub-Committee on Ship Design and Equipment (DE) (continued)

		Target completion date/number of sessions needed for completion	Reference
	.2 guidelines for on-board NOx monitoring and recording devices		
H.8	**Safety aspects of ballast water management**	1999	MEPC 41/20; paragraph 9.12; MSC 69/22, paragraph 20.54
H.9	Revision of resolution MEPC.60(33) and A.586(14)	2002	MEPC 42/22, paragraph 15.7; MSC 70/23 paragraph 20.22
H.10	Amendments to resolution A.744(18)	2 sessions	MSC 70/23, paragraph 20.23
L.1	**Development of requirements for wing-in-ground (WIG) craft** (in co-operation with NAV)	2000	DE 41/17, paragraphs 16.2 and 16.3
L.2	Safety of passenger submersible craft (in co-operation with FP, COMSAR, NAV and SLF)	1 session	DE 41/17, section 8
L.3	**International approval procedures for life-saving appliances**	1999	DE 41/17, paragraphs 11.9 to 11.10
L.4	**Standards and requirements for thermal protective lifejackets**	1999	MSC 66/24, paragraph 21.64; DE 41/17, paragraph 11.16

Sub-Committee on Ship Design and Equipment (DE) (continued)

		Target completion date/number of sessions needed for completion	Reference
L.5	**Guidelines under MARPOL Annex VI on prevention of air pollution from ships**	2003	MEPC 41/20, paragraph 8.22.1; MEPC 41/WP.5, paragraph 24.3
	.1 guidelines on equivalent methods to reduce on-board NOx emission		
	.2 guidelines on on-board exhaust gas cleaning systems		
	.3 guidelines on other technological methods verifiable or enforceable to limit SOx emission		

SUB-COMMITTEE ON STABILITY AND LOAD LINES AND ON FISHING VESSELS SAFETY (SLF)

			Target completion date/number of sessions needed for completion	**Reference**
1	Analysis of intact stability casualty records		Continuous	SLF 30/18, paragraphs 4.16 and 4.17
2	Analysis of damage cards		Continuous	SLF 41/18, paragraph 17.5
3	Improved stability criteria and systematic model tests		Continuous	SLF 39/18, paragraph 15.4 and annex 7
H.1	Harmonization of damage stability provisions in IMO instruments (probabilistic method)			
	.1	**development of revised SOLAS chapter II-1 parts A, B and B-1**	1999	SLF 41/18, section 5
	.2	development of explanatory notes for harmonized SOLAS chapter II-1 parts A, B and B-1	2 sessions	SLF 41/18, paragraph 5.7; MSC 69/22, paragraph 20.60.1
H.2	**Revision of technical regulations of the 1966 LL Convention**		2000	SLF 41/18, section 6, paragraph 6.13
H.3	**Revision of the fishing vessel Safety Code and Voluntary Guidelines**		1999	SLF 41/18, section 7
H.4	Role of the human element			
	.1	**guidelines for damage control plans**	1999	SLF 41/18, section 9
H.5	**Revision of the HSC Code** (co-ordinated by DE)		1999	MSC 66/24, paragraph 21.24; SLF 41/18, section 10

Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.6	**Amendments to the DSC Code : damage stability requirements for existing ro-ro passenger craft**	2000	SLF 41/18, paragraph 10.3.1; MSC 69/22, paragraph 20.60.2
H.7	**Guidance for shipboard stability management**	2000	SLF 41/18, paragraph 3.7; MSC 69/22, paragraph 20.60.3
H.8	**Interpretations of the 1966 LL Convention**	1999	SLF 41/18, paragraph 6.6; MSC 69/22, paragraph 20.60.4
H.9	**Safety aspects of ballast water management**	1999	MEPC 41/20, paragraph 9.12; MSC 69/22 paragraph 20.61
L.1	**Model stability booklets and loading manuals**	1999	SLF 41/18, section 11
L.2	Harmonization of damage stability provisions in IMO instruments (probabilistic method)		
	.1 harmonization of damage stability provisions in other IMO instruments, including the 1993 Torremolinos Protocol	3 sessions	SLF 37/25, paragraph 22.2; MSC 65/25, paragraph 21.23; SLF 41/18, section 13
L.3	**Development of a code on polar navigation** (co-ordinated by DE)	2000	MSC 68/23, paragraph 20.4; SLF 41/18, paragraph 16.2 and 16.4

Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) (continued)

		Target completion date/number of sessions needed for completion	**Reference**
L.4	**Recommendations for the installation of partially weathertight hatchway covers on board containerships**	2000	MSC 68/23, paragraph 20.60; SLF 41/18, paragraph 16.4
L.5	Review of the Intact Stability Code	Continuous	SLF 41/18, paragraph 3.14; MSC 69/22, paragraph 20.66

SUB-COMMITTEE ON STANDARDS OF TRAINING AND WATCHKEEPING (STW)

			Target completion date/number of sessions needed for completion	Reference
1	**Validation of model training course content**		Continuous	STW 29/14, paragraph 3.1
2	Casualty analysis (co-ordinated by FSI)		Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	**Training and certification of maritime pilots and revision of resolution A.485(XII)** (in co-operation with NAV)		2000	STW 29/14, paragraphs 7.46 to 7.49; MSC 69/22, paragraph 20.71
H.2	IMO standard marine communication phrases (co-ordinated by NAV)		1 session*	STW 28/20, section 7
H.3	**Follow-up action to the 1995 STCW Conference** [including:]			STW 29/14
	.1	guidance regarding recognition of certificates (regulation I/10)	2002	STW 29/14, paragraph 7.51
	.2	review of chapter VII	2002	
	.3	clarification of STCW Convention and STCW Code provisions	2002	
	.4	review of training-related resolutions and circulars with a view to revoking	1999	MSC 68/23, paragraph 5.4; STW 29/14, paragraph 7.51
H.4	**Follow-up action to the 1995 STCW-F Conference** [including:]			STW 29/14, paragraph 8.6
	.1	progress report of the Joint FAO/ILO/IMO Working Group	1999	MSC 69/22, paragraph 20.73

* The item is scheduled to be finalized in 2000

Sub-Committee on Standards of Training and Watchkeeping (STW) (continued)

		Target completion date/number of sessions needed for completion	Reference
.2	guidelines and recommendations based on the STCW Code specifically addressed to personnel on fishing vessels, including: - the use of simulators; - training of radio operators; - proficiency in survival craft and rescue boats; - emergency occupational safety, medical care and safety functions; - watchkeeping; and - prevention of fatigue (resolution 3)	1999	STW 29/14, paragraph 7.51
.3	recommendations for the training and certification of fishing vessel personnel on vessels of 12 metres in length and over but less than 24 metres (resolution 3)	1999	
.4	guidance on training, certification and watchkeeping standards for fishing vessel personnel serving on board large fishing vessels (resolution 6)	1999	
.5	requirements for officers in charge of an engineering watch and watchkeeping provisions (resolution 7)	1999	
.6	review of the recommendation on training of deck hands on board fishing vessels of 24 metres in length and over (resolution 4)	1999	
.7	clarification of STCW-F Convention requirements	Continuous	

Sub-Committee on Standards of Training and Watchkeeping (STW) (continued)

		Target completion date/number of sessions needed for completion	Reference
H.5	**Comprehensive review of resolution A.481(XII) on Principles of safe manning**	1999	STW 29/14, paragraph 9.7
H.6	**Medical standards for seafarers**	2000	STW 29/14, paragraph 7.12; MSC 69/22, paragraph 20.72
L.1	**Development of a code on polar navigation** (co-ordinated by DE)	2000	MSC 68/23, paragraph 20.4

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ANNEX 21

PROVISIONAL AGENDAS FOR THE FORTHCOMING SESSIONS OF THE SUB-COMMITTEES*

Sub-Committee on Bulk Liquids and Gases (BLG) - 4th session

	Opening of the session
1	Adoption of the agenda
2	Decisions of other IMO bodies
3	Additional safety measures for tankers
4	Tanker pump-room safety
5	Matters related to the probabilistic methodology for oil outflow analysis
6	Review of Annexes I and II of MARPOL 73/78
7	Review of specifications for crude oil washing systems
8	Revision of carriage requirements for carbon disulphide in the IBC Code
9	Requirements for personnel protection involved in the transportation of cargoes containing toxic substances in oil tankers
10	Review of existing ships' safety standards: amendments to SOLAS regulations VII/9 and VII/12
11**	Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments
12	Alignment of the cargo hose requirements in the IBC, BCH, IGC and GC Codes
13	Development of a code on polar navigation
14	Application of MARPOL requirements to FPSOs and FSUs
15	Work programme and agenda for BLG 5
16	Election of Chairman and Vice-Chairman for 2000
17	Any other business
18	Report of the Committees

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* Agenda item number do not necessarily indicate priority
** Item under continuous review

Sub-Committee on Dangerous Goods, Solid Cargoes and Containers (DSC) - 4th session

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Amendment 30-99 to the IMDG Code, its annexes and supplements (MFAG, etc.)

.1 harmonization of the IMDG Code with the UN Recommendations on the Transport of Dangerous Goods

.2 revision of the format of the IMDG Code

.3 revision of the Emergency Schedules (EmS)

4 Implementation of Annex III of MARPOL 73/78

5 Review of the BC Code, including evaluation of properties of solid bulk cargoes

6 Amendments to SOLAS chapters VI and VII and MARPOL Annex III to make the IMDG Code mandatory

7 Implementation of IMO instruments and training requirements for cargo-related matters

.1 revision of resolution A.537(13)

.2 development of an instrument for multimodal training requirements

8* Reports on incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas

9 Ventilation requirements for packaged dangerous goods

10 Mandatory application of the INF Code

11 Work programme and agenda for DSC 5

12 Election of Chairman and Vice-Chairman for 2000

13 Any other business

14 Report to the Maritime Safety Committee

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* Item under continuous review

Sub-Committee on Fire Protection (FP) - 43rd session

	Opening of the session and election of Chairman and Vice-Chairman for 1999
1	Adoption of the agenda
2	Decisions of other IMO bodies
3	Comprehensive review of SOLAS chapter II-2
4	Ro-ro ferry safety: recommendation on evacuation analysis under SOLAS regulation II-2/28-1.3
5	Fixed fire detection and fire alarm systems
6	Prohibition of the use of asbestos on board new ships
7	Revision of fire safety aspects of the HSC Code
8	Fire-fighting systems in machinery and other spaces
9	Unified interpretations of SOLAS chapter II-2
10	Development of a code on polar navigation
11	Role of the human element: revision of resolution A.654(16) on Graphical symbols for fire control plans
12*	Analysis of fire casualty records
13	Prohibition of the use of PFCs in shipboard fire-extinguishing systems
14	Ventilation requirements for packaged dangerous goods
15	Work programme and agenda for FP 44
16	Election of Chairman and Vice-Chairman for 2000
17	Any other business
18	Report to the Maritime Safety Committee

* Item under continuous review

Sub-Committee on Flag State Implementation (FSI) - 7th session

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Implementation of IMO instruments

.1 responsibilities of Governments and measures to encourage flag State compliance

.2 comprehensive analysis of difficulties encountered in the implementation of IMO instruments

4 Survey and certification

.1 Guidelines for unscheduled inspections of ro-ro passenger ships

.2 revision of Survey Guidelines (resolution A.746(18)) and Guidelines on surveys (resolution A.560(14))

.3 service intervals of life-saving appliances and radiocommunication equipment

.4 introduction of the HSSC into MARPOL Annex VI on prevention of air pollution

5 Reporting on non-compliance with IMO instruments

.1 deficiency reports

.2 mandatory reports under MARPOL 73/78

.3 analysis and evaluation of reports

6 Casualty statistics and investigations

.1 review of the Guidelines on investigation of human factors in marine casualties and incidents

7 Port State control

.1 regional co-operation

.2 results of inspections

.3 review of resolution A.787(19)

.4 mandatory reporting procedures on port State control detentions

.5 PSC on seafarer's working hours

8 Monitoring of actions taken by the Sub-Committee

9 Implications arising when a vessel loses the right to fly the flag of a State

10 Technical assistance

11 Work programme and agenda for FSI 8

12 Election of Chairman and Vice-Chairman for 2000

13 Any other business

14 Report to the Committees

Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) - 4th session

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Global Maritime Distress and Safety System (GMDSS)

.1* matters relating to the GMDSS Master Plan

.2 review of SOLAS regulation IV/15.7 and resolution A.702(17) on Radio maintenance guidelines for the GMDSS related to sea areas A3 and A4

.3* operational and technical co-ordination provisions of Maritime Safety Information (MSI) services

.4* exemptions from radio requirements

4 Ro-ro ferry safety: low-powered radio homing devices for liferafts

5* ITU maritime radiocommunication matters

.1 Radiocommunication ITU-R Study Group 8

.2 ITU World Radiocommunication Conference

6* Satellite services (Inmarsat and COSPAS-SARSAT)

7 Emergency radiocommunications: false alerts and interference

8 Matters concerning search and rescue, including those related to the 1979 SAR Conference and the introduction of the GMDSS

.1 harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters

.2* plan for the provision of maritime SAR services, including procedures for routeing distress information in the GMDSS

.3 revision of the IMOSAR and MERSAR manuals

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* Item under continuous review

9 Revision of the HSC Code

10 Development of a code on polar navigation

11 Work programme and agenda for COMSAR 5

12 Election of Chairman and Vice-Chairman for 2000

13 Any other business

14 Report to the Maritime Safety Committee

Sub-Committee on Safety of Navigation (NAV) - 45th session

Opening of the session

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Routeing of ships, ship reporting and related matters (including voyage planning)

4 Amendments to the COLREGs

5 Revision of SOLAS chapter V

6 Ergonomic criteria for bridge equipment and layout

7 Navigational aids and related matters

.1 world-wide radio navigation system

.2 review of performance standards for shipborne satellite radionavigational receivers

.3 performance standards for night vision equipment for high-speed craft

.4 performance standards for daylight signalling lamps

8 ITU matters, including Radiocommunication ITU-R Study Group 8 matters

9 Training and certification of maritime pilots and revision of resolution A.485(XII)

10 Safety of passenger submersible craft

11 Work programme and agenda for NAV 46

12 Election of Chairman and Vice-Chairman for 2000

13 Any other business

14 Report to the Maritime Safety Committee

Sub-Committee on Ship Design and Equipment (DE) - 42nd session

	Opening of the session
1	Adoption of the agenda
2	Decisions of other IMO bodies
3	International approval procedures for life-saving appliances
4	Revision of the HSC Code
5	Emergency towing arrangements for tankers
6	Prohibition of the use of asbestos on board new ships
7	Guidelines on helicopter landing areas
8	Development of requirements for wing-in-ground (WIG) craft
9	Standards and requirements for thermal protective lifejackets
10	Guidelines under MARPOL Annex VI on prevention of air pollution from ships
11	Safety aspects of ballast water management
12	Work programme and agenda for DE 43
13	Election of Chairman and Vice-Chairman for 2000
14	Any other business
15	Report to the Maritime Safety Committee

Sub-Committee on Stability and Load Lines and on Fishing Vessels Safety (SLF) - 42nd session

	Opening of the session
1	Adoption of the agenda
2	Decisions of other IMO bodies
3	Development of revised SOLAS chapter II-1 parts A, B and B-1
4	Revision of technical regulations of the 1966 LL Convention
5	Revision of the HSC Code
6	Guidelines for damage control plans
7	Revision of the fishing vessel Safety Code and Voluntary Guidelines
8	Model stability booklets and loading manuals
9	Amendments to the DSC Code: damage stability requirements for existing ro-ro passenger craft
10	Guidance for shipboard stability management
11	Interpretations of the 1966 LL Convention
12	Development of a code on polar navigation
13	Recommendations for the installation of partially weathertight hatchway covers on board containerships
14	Safety aspects of ballast water management
15	Work programme and agenda for SLF 43
16	Election of Chairman and Vice-Chairman for 2000
17	Any other business
18	Report to the Maritime Safety Committee

Sub-Committee on Standards of Training and Watchkeeping (STW) - 30th session

	Opening of the session
1	Adoption of the agenda
2	Decisions of other IMO bodies
3	Validation of model training course content
4	Training and certification of maritime pilots and revision of resolution A.485(XII)
5	Follow-up action to the 1995 STCW Conference
6	Follow-up action to the 1995 STCW-F Conference
7	Comprehensive review of resolution A.481(XII) on Principles of safe manning
8	Development of a code on polar navigation
9	Medical standards for seafarers
10	Work programme and agenda for STW 31
11	Election of Chairman and Vice-Chairman for 2000
12	Any other business
13	Report to the Maritime Safety Committee

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ANNEX 22

STATEMENT BY THE DELEGATION OF TURKEY

The Turkish Straits

Safety of navigation and protection of the marine environment in the Turkish Straits is a matter of concern first and foremost to Turkey and also to the international maritime community.

The details of the characteristics and peculiarities of the Turkish Straits will not be covered as these have been submitted in previous papers submitted to the Committee.

However, Turkey would like to provide additional information on the recent developments.

Turkey had initiated a new discussion at NAV 44 with a view to preparing a new report covering all aspects of safety and environmental protection in the Turkish Straits. The work on this matter is ongoing and we will participate in the relevant working group by MSC 70.

Since NAV 44, Turkey has taken various measures to address some of the needs identified to further enhance safety in the Turkish Straits.

Some of these measures include the repositioning of the pilotage embarking/disembarking locations, decision to build new pilot stations and berths at new locations, the relocation of some of the mooring buoys and the decision to carry out a survey study to clean or trim some of the shipwrecks.

As regards the decision of the Government of Turkey to establish a modern VTMIS in the Turkish Straits in order to improve the safety of maritime traffic and to further enhance the implementation of the TSS and associated IMO rules and recommendations, the Turkish authorities opened a tender and twelve companies expressed interest in taking part, two of which were found to be technically eligible within the deadline. However, the tender will be reopened soon to allow for greater participation. Turkey welcomes the interest of member countries in this regard.

Another development of importance is the decision of the Turkish Government to accede to the "Civil Liability Convention " (CLC) as well as to the "International Convention on Establishment of an International Fund for Compensation for Oil Pollution Damage" (FUND) as amended by the 1992 Protocols. Domestic procedures for their ratification have already been initiated. Upon their ratification, vessels will be required to carry the necessary financial liability certificate while passing through the Turkish Straits and Turkish territorial waters.

Also, on 6 November, Turkey enacted the new Maritime Regulations on the Turkish Straits. The new Regulations were drafted taking into consideration the experience of the past four years as well as the comments made by various users during bilateral consultations.

Turkey would further like to bring to the attention of the Committee the latest accidents in the Turkish Straits. Since the grounding of the tanker "Sea Salvia" on 17 December 1997, the Straits have witnessed three more major accidents. On 8 July 1998 a tanker loaded with 130.000 tons of crude oil ran aground in the close proximity of Topkapi Palace. Another tanker collided with a vessel and a bulk carrier caught fire in the Strait of Istanbul. Human error and unpredictable climatic and oceanographic changes were the primary causes of these accidents.

These accidents attest to the fact that, despite all measures, the Turkish Straits and Istanbul in particular, are seriously exposed to growing risks and dangers of dense maritime traffic. Yet, not withstanding the geographical realities of the Straits, there have been pronouncements of the intention to transport over a hundred million tons of additional oil through the Straits annually. This would represent more than 300 per cent increase in tanker traffic according to a recent analysis. There have also been campaigns launched under the logo of "sailing or floating pipeline" through the Straits. Such projections were met with deep concern on the part of the Turkish public opinion. These concerns have, in turn, been reflected in the media and naturally in statements made by the Government.

In addition to ever growing vessel traffic, the economic development of the Black Sea countries as well as the Caucasus will depend on sea borne trade which has to go through the Straits. That means increased maritime traffic in both directions which will result in further exposure to marine hazards and marine pollution caused by collisions, grounding and stranding. The marine pollution caused by discharge of slop from tank washing in the Black Sea is another area of concern for Turkey which must be addressed. The waters of the Black Sea also flow through the Straits to the Sea of Marmara and the Aegean. It is clear that not only are the Turkish Straits exposed to pollution and risks of major accidents but also the Black Sea and the Aegean including the highly developed tourism industry and fishery.

To conclude, sometimes we get lost in technicalities and forget that the Turkish Straits and the people of Istanbul remain just one explosion away from a catastrophe. To avoid future disasters, Turkey as the only coastal state is doing its part and we expect the users and the international community as a whole to support us to this end.

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