



MARITIME SAFETY COMMITTEE
75th session
Agenda item 24

MSC 75/24/Add.1
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**REPORT OF THE MARITIME SAFETY COMMITTEE
ON ITS SEVENTY-FIFTH SESSION**

Attached are annexes 1 to 31 to the report of the Maritime Safety Committee on its seventy-fifth session (MSC 75/24).

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ANNEX 1

AGENDA OF THE SEVENTY-FIFTH SESSION AND LIST OF DOCUMENTS

1 Adoption of the agenda, report on credentials

MSC 75/1/Rev.1	Secretariat	Revised provisional agenda
MSC 75/1/1	Secretariat	Annotations to the provisional agenda

2 Decisions of other IMO bodies

MSC 75/2 and Add.1	Secretariat	Outcome of C 86 and C/ES.21
MSC 75/2/1 and Add.1	Secretariat	Outcome of LEG 83 and LEG 84
MSC 75/2/2	Secretariat	Outcome of A 22
MSC 75/2/2/Add.1	Secretariat	Safety measures and procedures for the treatment of persons rescued at sea
MSC 75/2/2/Add.2	Norway	Review of safety measures and procedures for the treatment of persons rescued at sea
MSC 75/2/3	Secretariat	Outcome of FAL 29
MSC 75/2/3/Add.1	United Kingdom	Facilitation aspects of other forms and certificates – Harmonization of certificates and documents
MSC 75/2/3/Add.2	Secretariat	Outcome of the SPI Working Group at FAL 29
MSC 75/2/4	Secretariat	Outcome of MEPC 47
MSC 75/2/5	Secretariat	Outcome of TC 50

3 Consideration and adoption of amendments to mandatory instruments

MSC 75/3	Secretariat	Amendments to the 1974 SOLAS Convention
MSC 75/3/1	Secretariat	Amendments to the 1988 SOLAS Protocol
MSC 75/3/2	Secretariat	Amendments to the Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers (resolution A.744(18))
MSC 75/3/3	IACS	Amendments to the Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers (resolution A.744(18))
MSC 75/INF.3 (E only)	Belgium, Canada, Denmark, Finland, France, Germany, Greece, Italy, Japan, Netherlands, Norway, Panama, Poland, Spain, Sweden, United Kingdom and United States	Amendments to SOLAS 1974, as amended – North Atlantic Ice Patrol
MSC 75/WP.17 and corrs. 1 and 2	Drafting group	Report of the drafting group

4 Large passenger ship safety

MSC 75/4	Secretariat	Outcome of NAV 47, SLF 44, STW 33 and FP 46 on large passenger ship safety
MSC 75/4/Add.1	Secretariat	Outcome of COMSAR 6 and DE 45 on large passenger ship safety
MSC 75/4/1	United States	Report of the correspondence group
MSC 75/4/2	Norway	
MSC 75/4/3	Germany	
MSC 75/4/4	Germany	Proposal for a pragmatic working assumption of the term "large"
MSC 75/4/5	United Kingdom	Proposal for a revised working strategy
MSC 75/INF.14 (E only)	Netherlands	The use of directional sound as an aid to passenger evacuation
MSC 75/INF.17 (E only)	United Kingdom	Systematic incident analysis: finding the causes of dangerous occurrences
MSC 75/INF.36 (E only)	RINA	The use of directional sound as an aid to passenger evacuation
MSC 75/WP.12	Working group	Results of a workshop on passenger ship safety
		Report of the working group

5 Bulk carrier safety

MSC 75/5	Secretariat	Outcome of MSC 74 and SLF 44
MSC 75/5/Add.1	Secretariat	Outcome of COMSAR 6 and DE 45
MSC 75/5/1	United Kingdom	International collaborative FSA study: progress report
MSC 75/5/2	Japan	Report on FSA study on bulk carrier safety
MSC 75/5/3	United Kingdom	Bulk carrier model test progress report
MSC 75/5/4	ICFTU	Precautions against flooding of forward spaces and improved life-saving appliances
MSC 75/5/5	France	International collaborative FSA study: Step 2 of FSA (risk analysis)
MSC 75/INF.6 (E only)	Japan	Step 2 of FSA on bulk carrier safety (risk analysis)
MSC 75/INF.9 (E only)	INTERCARGO	Bulk carrier casualty report
MSC 75/INF.22 (E only)	France	International collaborative FSA study: Step 2 of FSA (risk analysis) WP 11
MSC 75/INF.23 (E only)	IACS	Develop risk contribution tree component
MSC 75/WP.19	Working group	IACS's action to improve the safety regime for bulk carriers
		Report of the working group

6 Safety of navigation

MSC 75/6	Secretariat	Report of the 47th session
NAV 47/13	Sub-Committee	Report of the 47th session

MSC 75/6/1	Norway and IACS	Proposal to amend the provisions on “navigation bridge visibility” in SOLAS 74 chapter V
MSC 75/6/2	Germany, Denmark Netherlands and Sweden	Presentation of navigational information, operational matters and integrated bridge systems (IBS)
MSC 75/6/3	Germany	Presentation of navigational information, operational matters and integrated bridge systems (IBS)
MSC 75/6/4	France	
MSC 75/6/5	IHO and IALA	Integrated presentation of navigational information on bridge equipment
MSC 75/INF.2 (E only)	Sweden	North Atlantic Right Whales
MSC 75/INF.4 (E only)	Secretariat	The Marine Electronic Highway Project
MSC 75/INF.7 (E only)	IALA	Recommendation on the performance and monitoring of a DGNSS service in the frequency band 283.5 – 325 kHz
MSC 75/INF.8 (E only)	IALA	IALA Guidelines on Universal Shipborne Automatic Identification System (AIS) – 1.0
7	Dangerous goods, solid cargoes and containers	
MSC 75/7 DSC 6/15 and Add.1	Secretariat Sub-Committee	Report of the 6th session Report of the 6th session
MSC 75/7/1	Germany	Derogations of the mandatory IMDG Code
MSC 75/7/2	Spain	Manual of serious structural deficiencies in CSC containers
MSC 75/7/3	IICL	Manual of serious structural deficiencies in CSC containers
MSC 75/INF.5 (E only)	Secretariat	Outcome of the 6th session of the Sub-Committee: amendment 31-02 to the IMDG Code
8	Stability, load lines and fishing vessel safety	
MSC 75/8 SLF 44/18 MSC 75/INF.18 (E only)	Secretariat Sub-Committee IACS	Report of the 44th session Report of the 44th session Hatch cover scantlings requirements for bulk carriers (IACS UR S21)
9	Training and watchkeeping	
MSC 75/9 STW 33/17	Secretariat Sub-Committee	Report of the 33rd session Report of the 33rd session

MSC 75/9/1	Secretariat	Progress on the work of panels of competent persons in assessing information communicated as required by article IV and regulation I/7 of the STCW Convention, as amended
MSC 75/9/2	Secretariat	List of competent persons to be maintained by the Secretary-General pursuant to section A-I/7 of the STCW Code
MSC 75/9/3	Denmark	Guidance on arrangements between MSC 75/9/4 Brazil Parties to allow for recognition of certificates under STCW regulation I/10
MSC 75/9/5	Bahamas	Reference to amendments in the title of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978
MSC 75/INF.24 (E & F only)	France	Database for management of STCW certificates
MSC 75/WP.2	Secretary-General	Report of the Secretary-General to the MSC on evaluation of the information communicated in accordance with STCW regulation I/7.2
MSC 75/WP.3	Secretariat	Parties to the 1978 STCW Convention as amended confirmed by the MSC to have communicated information which demonstrates that full and complete effect is given to the relevant provisions of the Convention
MSC 75/WP.4	Secretariat	List of competent persons to be maintained by the Secretary-General pursuant to section A-I/7 of the STCW Code
MSC 75/WP.13	Secretariat	Guidance for port State control officers on reference to STCW 95 in certificates, endorsements and documents evidence

10 Fire protection

MSC 75/10 FP 46/16	Secretariat Sub-Committee	Report of the 46th session
MSC 75/10/1	United Kingdom, Germany and ICCL	Report of the 46th session Evacuation analysis for passenger ships and high-speed craft
MSC 75/10/2	Sweden	Unified interpretation to the revised SOLAS chapter II-2
MSC 75/10/3	IACS	SOLAS regulations II-2/4.2.3.1 and II-2/4.2.2.4 (2000 amendments): required location for termination of lubricating oil tank air pipes

MSC 75/WP.9	Chairman of the FP Sub-Committee	Preamble of the Interim Guidelines for a simplified evacuation analysis of passenger ships
11 Radiocommunications and search and rescue		
MSC 75/11 COMSAR 6/22 MSC 75/11/1	Secretariat Sub-Committee France	Report of the 6th session Report of the 6th session Review of safety measures and procedures for the treatment of persons rescued at sea
MSC 75/11/2	Germany	Matters concerning search and rescue, including those related to the 1979 SAR Conference and the introduction of the GMDSS
MSC 75/11/3	France, Germany and Sweden	Matters concerning search and rescue including those related to the 1979 SAR Conference and the introduction of the GMDSS – Development of guidance for the use of a medical first-aid kit for certain passenger ships other than ro-ro passenger ships meeting comparative criteria
MSC 75/11/4	IMSO	Proposed amendments to the Convention on the International Mobile Satellite Organization
MSC 75/11/5	Germany	Additional codes for nature of distress in the Inmarsat-E System
MSC 75/11/6	Secretariat	Draft COMSAR circular on Guidance for the voluntary use of standardized questionnaires and formats for reporting false alerts in collecting data on false alerts
MSC 75/WP.14	Drafting group	Review of safety measures and procedures for the treatment of persons rescued at sea
12 Ship design and equipment		
MSC 75/12 MSC 75/12/Add.1	Secretariat Secretariat	Report of the 44th session Urgent matters emanating from the 45th session
DE 44/19 DE 45/27 MSC 75/12/1	Sub-Committee Sub-Committee Secretariat	Report of the 44th session Report of the 45th session Draft MSC resolution on adoption of amendments to the Guidelines for emergency towing arrangements on tankers
MSC 75/12/2	Australia	Proposed amendments to update the DSC Code and the 1994 HSC Code

MSC 75/12/3	INTERTANKO	Matters relating to draft revised SOLAS regulation II-1/12-2 and Technical provisions for means of access for inspections, regarding resolution A.744(18)
MSC 75/12/4	Secretariat	Recycling of ships: outcome of MEPC 47
MSC 75/WP.16	Informal group	Draft MSC Circular on Proposed amendments to update the DSC Code and the 1994 HSC Code
13 Flag State implementation		
MSC 75/13	Secretariat	Urgent matters emanating from the 10th session
FSI 10/17	Sub-Committee	Report of the 10th session
MSC 75/13/1	Norway	Proposed amendments to MSC/Circ.1013 relating to resolution A.746(18) on Survey Guidelines under the Harmonized System of Survey and Certification
MSC 75/13/2	Bahamas	Proposed change of name
MSC 75/WP.15	Informal group	Procedures concerning observed ISM Code major non-conformities
14 Technical assistance subprogramme in maritime safety		
MSC 75/14	Secretariat	Developments concerning safety-related technical co-operation activities supported by the Maritime Safety Division
MSC 75/14/1	Secretariat	Periodical report on model courses
15 Role of the human element		
MSC 75/15	Secretariat	Information on the Committee's activities relating to human element
MSC 75/15/1	Denmark	Review of the status of the organization's human element activities
MSC 75/15/2	United States	Fatigue training
MSC 75/INF.11 (E only)	INTERCARGO	ISM Code
MSC 75/INF.12 (E only)	Netherlands	Conclusions of the Mare Forum Conference "Corporate governance in shipping: the Human factor"
MSC 75/INF.13 (E only)	Netherlands	Brochure on the underlying causes of unsafe behaviour: "The Human Factor and a Safe Freight Transport: a Framework for Policy"
MSC 75/WP.10	Working group	Report of the working group

16 Formal safety assessment

MSC 75/16	Secretariat	Outcome of MSC 74
MSC 75/INF.19 (E only)	IACS	FSA training
MSC 75/INF.20 (E only)	United Kingdom	Application of the Guidelines for formal safety assessment

17 Prevention and suppression of acts of terrorism against shipping

MSC 75/17	Secretariat	Decisions of A 22 and MSC/ES.1
MSC 75/17/Add.1	Secretariat	IMO activities on security and the prevention and suppression of terrorism against ships
MSC 75/17/1	Secretariat	Report of the intersessional meeting of the MSC Working Group on Maritime Security
MSC 75/17/2	Secretariat	Decisions of COMSAR 6
MSC 75/17/2/Add.1	Secretariat	Outcome of DE 45
MSC 75/17/2/Add.2	Secretariat	Outcome of FSI 10
MSC 75/17/2/Add.3	Secretariat	Outcome of LEG 84
MSC 75/17/3	Russian Federation	Proposed amendments to SOLAS regulation V/19
MSC 75/17/4	ICS	Implications of a decision to advance the date of carriage requirement for AIS
MSC 75/17/5	IADC	Application of security measures to mobile offshore drilling units
MSC 75/17/6	ICC	Maritime security
MSC 75/17/7	IALA	Means of ship alerting: the use of automatic identification system (AIS)
MSC 75/17/8	WCO	WCO Action Plan and WCO Business Partnership meeting report
MSC 75/17/9	IHMA	Consideration of proposals and information on maritime security issues
MSC 75/17/10	OECD	Outcome of the Working group on Maritime Security of the OECD Maritime Transport Committee
MSC 75/17/11	ILO	Consideration of proposals and information on maritime security issues and information on the current work of the ILO
MSC 75/17/12	Belgium, Finland, France, Germany, Ireland, Italy, Portugal, Spain and Sweden	Consideration of proposals on maritime security issues
MSC 75/17/13	Nigeria	Proposals and consideration on the need for offshore installations
MSC 75/17/14	Nigeria	Consideration of proposal on Technical Co-operation Programme

MSC 75/17/15	Germany	Improved standard on seafarer's identification
MSC 75/17/16	Australia and New Zealand	Consideration of proposals and information on maritime security issues – Seafarer identification
MSC 75/17/17	Singapore	Security training for Ship Security Officer (SSO) and ship's crew
MSC 75/17/18	Singapore	Consideration of proposals and information on maritime security issues – Long term goal
MSC 75/17/19	Brazil	Proposal of a system for global identification and tracking of ships
MSC 75/17/20	Japan	Comments and proposal for the new security requirements for ships under the SOLAS Convention
MSC 75/17/21	CIRM	Discreet surveillance and alarm systems
MSC 75/17/22	OGP	Proposal to include offshore facilities in the draft amendments to chapter IX of SOLAS
MSC 75/17/23	ICCL	IMO numbers on ships' hulls
MSC 75/17/24	France	
MSC 75/17/25	Marshall Islands, New Zealand, Sweden, United Kingdom, United States BIMCO and INTERTANKO	Continuous synopsis record – Measures to enhance maritime safety and security
MSC 75/17/26	Marshall Islands	Transparency of ownership and control of ships
MSC 75/17/27 and Corr.1	Cyprus and Malta	Measures to enhance maritime safety and security – Marking of the ship's identification number
MSC 75/17/28	United States	Automatic identification system
MSC 75/17/29	United States	Government obligations
MSC 75/17/30	United States	Ship security
MSC 75/17/31	United States	Port facility security
MSC 75/17/32	United States	Container security
MSC 75/17/33	United States	Container security – United States Customs Container Security Initiative (CSI)
MSC 75/17/34	United States	Seafarer identification
MSC 75/17/35	United States	Port facility vulnerability assessments
MSC 75/17/36	United States	Means of ship alerting
MSC 75/17/37	BIMCO and ICCL	Ship identification (“phantom” ships)
MSC 75/17/38	ICS, BIMCO, SIGTTO, IPTA, OCIMF and INTERTANKO	Identity documents

MSC 75/17/39	ICS, BIMCO, SIGTTO, IPTA, OCIMF and WNTI	Guidance for the development of ship security plans
MSC 75/17/40	ICS, BIMCO, SIGTTO, IPTA and OCIMF	Measures to prevent unlawful acts against passengers and crews on board ships
MSC 75/17/41	ICS, BIMCO, SIGTTO, IPTA and OCIMF	Level of threat and threat assessment
MSC 75/17/42	IAPH and ICS	Port and maritime security - Guidance for the development of ship and port security plans
MSC 75/17/43	Turkey	Review of MSC/Circ.433 (Measures to prevent unlawful acts against passengers and crews on board ships) regarding the duties and training requirements of ship security officer
MSC 75/17/44	Cyprus	Measures to enhance maritime security – Information on the ownership and control of a ship
MSC 75/17/45	Cyprus and Malta	Measures to enhance maritime security – Risks resulting from demonstration and actions against ships, offshore installations and port facilities
MSC 75/INF.10 (E only)	Secretariat	Report on the ICAO High-Level, Ministerial Conference on Aviation Security (Montreal, 19 and 20 February 2002)
MSC 75/INF.25 (E only)	Marshall Islands	Initiatives taken to enhance maritime security concerning issuance of seafarer documents
MSC 75/INF.26 (E only)	IAPH	Port and maritime security – IAPH policy and guidance paper
MSC 75/INF.27 (E only)	Liberia	Proposed security manual for ships and mobile offshore drilling units
MSC 75/INF.28 (E only)	Singapore	International Maritime and Port Security Conference
MSC 75/INF.29 (E only)	BIMCO	Co-operation between the shipping industry and government agencies
MSC 75/INF.30 (E only)	IUMI	
MSC 75/INF.31 (E only)	CIRM	Availability of ship data reporting systems and long-range tracking services
MSC 75/INF.32 (E only)	CIRM	Security EPIRBs
MSC 75/INF.33 (E only)	Canada	Reporting requirements for ships entering Canadian waters
MSC 75/INF.34 (E only)	Canada	Canada – United States Smart Border Declaration
MSC 75/INF.35 (E only)	Canada	Authorized representative

MSC 75/WP.6 MSC 75/WP.7	Secretariat Chairman	Synopsis document Proposed draft amendments to SOLAS chapters V and XI and the draft IS Code
MSC 75/WP.7/Add.1 MSC 75/WP.8 MSC 75/WP.18 and Add.1	Chairman Chairman Working group	Draft Conference resolutions Issues of principles Report of the Working group on Maritime Security
18 Piracy and armed robbery against ships		
MSC 75/18 MSC 75/18/Add.1 MSC 75/18/1	Secretariat Secretariat Secretariat	Annual, quarterly and monthly reports Coastal States' reports Evaluation and assessment mission on piracy and armed robbery against ships (Guayaquil, Ecuador – 25 and 26 September 2001)
MSC 75/18/2	Secretariat	Outcome of the 2nd meeting of the UNICPOLOS (UN Headquarters, 7 to 11 May 2001)
MSC 75/18/3	Secretariat	Outcome of the 56th session of the United Nations General Assembly
MSC 75/18/4	Brazil	Code of Practice for the Investigation of Crimes of Piracy and Armed Robbery against Ships
19 Relations with other organizations		
MSC 75/19	Secretariat	Applications for consultative status – Outcome of C 86
MSC 75/19/Add.1	Secretariat	Applications for consultative status – Outcome of C/ES.21
MSC 75/19/1 MSC 75/19/2 and Corr.1 (E only) MSC 75/INF.37	Secretariat IACS RINA	European Parliament resolution IACS unified interpretations Introductory statement
20 Implementation of instruments and related matters		
MSC 75/20	Secretariat	Conventions and codes/ recommendations
MSC 75/INF.15 (E only)	Secretariat	Conventions and codes/ recommendations
21 Application of the Committee's Guidelines		
MSC 75/21	Secretariat	Review of the sub-committee structure – Outcome of A 22
MSC 75/21/1	MSC and MEPC Chairmen	Review of the sub-committee structure
MSC 75/21/2	Brazil	Restructuring of Committees and sub-committees

MSC 75/21/3	Secretariat	Review of the sub-committee structure – Outcome of MEPC 47
22	Work programme	
MSC 75/22	Secretariat	Work programmes of the BLG, DSC, FP, NAV, SLF and STW Sub-Committees and provisional agendas for their forthcoming sessions
MSC 75/22/Add.1	Secretariat	Work programmes of the COMSAR and DE Sub-Committees and provisional agendas for their forthcoming sessions
MSC 75/22/Add.2	Secretariat	Work programme of the FSI Sub-Committee and provisional agenda for its eleventh session
MSC 75/22/1	Secretariat	Outcome of A 22
MSC 75/22/2	Australia	Guidelines for the design and construction of offshore supply vessels
MSC 75/22/3	United Kingdom	Reducing fire risk using oil mist detection
MSC 75/22/4	United Kingdom	Sub-Committee on Safety of Navigation – Requirements for the display and use of AIS information on shipborne navigational displays
MSC 75/22/5	Norway	Navigation bridge visibility
MSC 75/22/6	Norway	Performance standards for survival craft two-way radiotelephone apparatus
MSC 75/22/7	Russian Federation	Revision of the Form of Nuclear Passenger Ship Safety Certificate and Form of Nuclear Cargo Ship Safety Certificate
MSC 75/22/8	United Kingdom	Smoke and toxicity testing for floor coverings
MSC 75/22/9	Norway and Sweden	SOLAS chapter VI – Carriage of cargoes – Cargo Securing Manual and cargo information
MSC 75/WP.1	Chairman	Preliminary assessment of proposals for new work programme items
MSC 75/WP.5	Secretariat	Substantive items for inclusion in the agendas for the seventy-sixth and seventy-seventh sessions of the Committee
MSC 75/WP.20	Secretariat	Work programme of the sub-committees and provisional agendas for their forthcoming sessions
23	Any other business	
MSC 75/23	Secretariat	Multiple inspections
MSC 75/23/1	Secretariat	Manual on operational requirements for seafarers

MSC 75/23/2	Secretariat	IMO/IACS co-operation on the IACS Quality System Certification Scheme (QSCS)
MSC 75/23/3	Secretariat	Equasis information system
MSC 75/23/4	Secretariat	Outcome of the International Conference on the Control of Harmful Anti-fouling Systems for Ships
MSC 75/23/5	Germany	Micro climate in totally enclosed survival craft
MSC 75/23/6	Secretariat	Revision of the International Health Regulations
MSC 75/23/7	South Africa	Report on the 14th International Symposium on the Transport of Dangerous Goods by Sea and Inland Waters (ISTDG 14)
MSC 75/23/8	Australia	Report of the International Commission on Shipping Inquiry into Ship Safety
MSC 75/23/9	IALA	IALA Standards for training and certification of vessel traffic service (VTS) personnel
MSC 75/23/10	United Kingdom	Research into identifying standard tactics for ship fire-fighting
MSC 75/23/11	United Kingdom and France	Unique IDs for Shipowning and Shipmanagement Companies
MSC 75/INF.16 (E only)	Malta and United Kingdom	Development of a pro-active maritime safety culture thematic network for safety assessment for waterborne transport
MSC 75/INF.21 (E and S only)	Spain	Maritime configuration of ports: Access channels and protected water areas

24 Report of the seventy-fifth session of the Committee

MSC 75/WP.11 and Adds.1, 2, 3 and 4	Secretariat	Draft report
MSC 75/24 and Add.1	Secretariat	Report

MSC 75/INF.1 (E only)	Secretariat	List of participants

ANNEX 2

**RESOLUTION MSC.123(75)
(adopted on 24 May 2002)**

**ADOPTION OF AMENDMENTS TO THE INTERNATIONAL CONVENTION
FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as "the Convention"), concerning the amendment procedure applicable to the Annex to the Convention, other than to the provisions of chapter I thereof,

HAVING CONSIDERED, at its seventy-fifth session, amendments to the Convention, proposed and circulated in accordance with article VIII(b)(i) thereof,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Convention, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2003, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;
3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2004 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;
5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization, which are not Contracting Governments to the Convention.

ANNEX

**AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF
LIFE AT SEA, 1974, AS AMENDED**

**CHAPTER IV
RADIOCOMMUNICATIONS**

Regulation 1 - Application

- 1 Paragraphs 3, 4, 5, 6 and 7 are deleted.
- 2 Existing paragraph 8 is renumbered as paragraph 3.

Regulation 3 - Exemptions

- 3 The word "; or" at the end of paragraph 2.1 is replaced by full stop(.).
- 4 Paragraph 2.3 is deleted.

Regulation 4 - Functional requirements

- 5 In paragraph 1.6, the reference to "V/12(g) and (h)" is replaced by "V/19.2.3.2".

Regulation 7 - Radio equipment: General

- 6 Paragraphs 2, 3 and 4 are deleted.
- 7 Existing paragraph 5 is renumbered as paragraph 2.

Regulation 12 - Watches

- 8 Paragraph 4 is deleted.

Regulation 14 - Performance standards

- 9 In paragraph 1, in the second sentence, the words "Subject to paragraph 2" are deleted.
- 10 Paragraph 2 is deleted.

CHAPTER V SAFETY OF NAVIGATION

Regulation 21 – International Code of Signals

- 11 The title of the regulation is replaced by the following:
“International Code of Signals and IAMSAR Manual”
- 12 The existing paragraph is numbered as paragraph 1.
- 13 A new paragraph 2 is added as follows:
“2 All ships shall carry an up-to-date copy of Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual.”

CHAPTER VI CARRIAGE OF CARGOES

Regulation 2 - Cargo information

- 14 In existing paragraph 2.3, the words “regulation VII/2” are replaced by the words “the IMDG Code, as defined in regulation VII/1.1”.

Regulation 5 – Stowage and securing

- 15 In existing paragraph 1, the words “Cargo and cargo units” are replaced by the words “Cargo, cargo units* and cargo transport units**”.
- 16 In existing paragraph 2, the words “cargo carried in cargo unit” are replaced by the words “cargo, cargo units and cargo transport units”.
- 17 In existing paragraph 4, the words “cargo units” are replaced by the words “cargo units and cargo transport units” (in two places).
- 18 In existing paragraph 5, the word "Containers" is replaced by the words "Freight containers" and in the last line, after "(CSC)", at the end of the sentence, the words ",as amended" are added.
- 19 Existing paragraph 6 is replaced by the following:

"All cargoes, other than solid and liquid bulk cargoes, cargo units and cargo transport units shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual approved by the Administration. In ships with ro-ro spaces, as defined in regulation II-2/3.41, all securing of such cargoes, cargo units and cargo

* Refer to the Code of Safe Practice for Cargo Stowage and Securing, adopted by the Organization by resolution A.714(17), as amended.

** Refer to the International Maritime Dangerous Goods (IMDG) Code, adopted by the Organization by resolution MSC.122(75).

transport units, in accordance with the Cargo Securing Manual, shall be completed before the ship leaves the berth. The Cargo Securing Manual shall be drawn up to a standard at least equivalent to relevant guidelines developed by the Organization*."

Regulation 6 – Acceptability for shipment

20 In existing paragraph 3, the words “regulation VII/2” are replaced by the words “the IMDG Code, as defined in regulation VII/1.1”.

CHAPTER VII CARRIAGE OF DANGEROUS GOODS

21 Existing part A is replaced by the following new part A and part A-1:

“PART A

CARRIAGE OF DANGEROUS GOODS IN PACKAGED FORM

Regulation 1

Definitions

For the purpose of this chapter, unless expressly provided otherwise:

1 *IMDG Code* means the International Maritime Dangerous Goods (IMDG) Code adopted by the Maritime Safety Committee of the Organization by resolution MSC.122(75), as may be amended by the Organization, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the Annex other than chapter I.

2 *Dangerous goods* mean the substances, materials and articles covered by the IMDG Code.

3 *Packaged form* means the form of containment specified in the IMDG Code.

Regulation 2

Application**

1 Unless expressly provided otherwise, this part applies to the carriage of dangerous goods in packaged form in all ships to which the present regulations apply and in cargo ships of less than 500 gross tonnage.

* Refer to the Guidelines on the preparation of the cargo securing manual (MSC/Circ.745).

** Refer to:
.1 part D which contains special requirements for the carriage of INF cargo; and
.2 regulation II-2/19 which contains special requirements for ships carrying dangerous goods.

2 The provisions of this part do not apply to ships' stores and equipment.

3 The carriage of dangerous goods in packaged form is prohibited except in accordance with the provisions of this chapter.

4 To supplement the provisions of this part, each Contracting Government shall issue, or cause to be issued, detailed instructions on emergency response and medical first aid relevant to incidents involving dangerous goods in packaged form, taking into account the guidelines developed by the Organization.*

Regulation 3

Requirements for the carriage of dangerous goods

The carriage of dangerous goods in packaged form shall be in compliance with the relevant provisions of the IMDG Code.

Regulation 4

Documents

1 In all documents relating to the carriage of dangerous goods in packaged form by sea, the proper shipping name of the goods shall be used (trade names alone shall not be used) and the correct description given in accordance with the classification set out in the IMDG Code.

2 The transport documents prepared by the shipper shall include, or be accompanied by, a signed certificate or a declaration that the consignment, as offered for carriage, is properly packaged, marked, labelled or placarded, as appropriate, and in proper condition for carriage.

3 The person(s) responsible for the packing/loading of dangerous goods in a cargo transport unit** shall provide a signed container/vehicle packing certificate stating that the cargo in the unit has been properly packed and secured and that all applicable transport requirements have been met. Such a certificate may be combined with the document referred to in paragraph 2.

4 Where there is due cause to suspect that a cargo transport unit in which dangerous goods are packed is not in compliance with the requirements of paragraph 2 or 3, or where a container/vehicle packing certificate is not available, the cargo transport unit shall not be accepted for carriage.

5 Each ship carrying dangerous goods in packaged form shall have a special list or manifest setting forth, in accordance with the classification set out in the IMDG Code, the dangerous goods on board and the location thereof. A detailed stowage plan, which

* Refer to:

- .1 the Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS Guide) (MSC/Circ.1025); and
- .2 the Medical First Aid and the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG) (MSC/Circ.857);

published by the Organization.

** Refer to the International Maritime Dangerous Goods (IMDG) Code, adopted by the Organization by resolution MSC.122(75).

identifies by class and sets out the location of all dangerous goods on board, may be used in place of such a special list or manifest. A copy of one of these documents shall be made available before departure to the person or organization designated by the port State authority.

Regulation 5

Cargo Securing Manual

Cargo, cargo units* and cargo transport units, shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual approved by the Administration. The Cargo Securing Manual shall be drawn up to a standard at least equivalent to the guidelines developed by the Organization.**

Regulation 6

Reporting of incidents involving dangerous goods

1 When an incident takes place involving the loss or likely loss overboard of dangerous goods in packaged form into the sea, the master, or other person having charge of the ship, shall report the particulars of such an incident without delay and to the fullest extent possible to the nearest coastal State. The report shall be drawn up based on general principles and guidelines developed by the Organization.***

2 In the event of the ship referred to in paragraph 1 being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the company, as defined in regulation IX/1.2, shall, to the fullest extent possible, assume the obligations placed upon the master by this regulation.

PART A-1

CARRIAGE OF DANGEROUS GOODS IN SOLID FORM IN BULK

Regulation 7

Definitions

Dangerous goods in solid form in bulk means any material, other than liquid or gas, consisting of a combination of particles, granules or any larger pieces of material, generally uniform in composition, which is covered by the IMDG Code and is loaded directly into the cargo spaces of a ship without any intermediate form of containment, and includes such materials loaded in a barge on a barge-carrying ship.

* As defined in the Code of Safe Practice for Cargo Stowage and Securing, adopted by the Organization by resolution A.715(17), as amended.

** Refer to the Guidelines for the preparation of the cargo securing manual (MSC/Circ.745).

*** Refer to the General principles for ship reporting systems and ship reporting requirements, including Guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants, adopted by the Organization by resolution A.851(20).

Regulation 7-1

Application*

1 Unless expressly provided otherwise, this part applies to the carriage of dangerous goods in solid form in bulk in all ships, to which the present regulations apply and in cargo ships of less than 500 gross tonnage.

2 The carriage of dangerous goods in solid form in bulk is prohibited except in accordance with the provisions of this part.

3 To supplement the provisions of this part, each Contracting Government shall issue, or cause to be issued, detailed instructions on the safe carriage of dangerous goods in solid form in bulk** which shall include instructions on emergency response and medical first aid relevant to incidents involving dangerous goods in solid form in bulk, taking into account the guidelines developed by the Organization.***

Regulation 7-2

Documents

1 In all documents relating to the carriage of dangerous goods in solid form in bulk by sea, the bulk cargo shipping name of the goods shall be used (trade names alone shall not be used).

2 Each ship carrying dangerous goods in solid form in bulk shall have a special list or manifest setting forth the dangerous goods on board and the location thereof. A detailed stowage plan, which identifies by class and sets out the location of all dangerous goods on board, may be used in place of such a special list or manifest. A copy of one of these documents shall be made available before departure to the person or organization designated by the port State authority.

Regulation 7-3

Stowage and segregation requirements

1 Dangerous goods in solid form in bulk shall be loaded and stowed safely and appropriately in accordance with the nature of the goods. Incompatible goods shall be segregated from one another.

* Refer to regulation II-2/19, which contains special requirements for ships carrying dangerous goods.

** Refer to the Code of Safe Practice for Solid Bulk Cargoes (BC Code), adopted by the Organization by resolution A.434(XI), as amended.

*** Refer to the Medical First Aid Guide for Use in Accidents involving Dangerous Goods (MFAG) (MSC/Circ.857).

2 Dangerous goods in solid form in bulk which are liable to spontaneous heating or combustion shall not be carried unless adequate precautions have been taken to minimize the likelihood of the outbreak of fire.

3 Dangerous goods in solid form in bulk which give off dangerous vapours shall be stowed in a well ventilated cargo space.

Regulation 7-4

Reporting of incidents involving dangerous goods

1 When an incident takes place involving the loss or likely loss overboard of dangerous goods in solid form in bulk into the sea, the master, or other person having charge of the ship, shall report the particulars of such an incident without delay and to the fullest extent possible to the nearest coastal State. The report shall be drawn up based on general principles and guidelines developed by the Organization.*

2 In the event of the ship referred to in paragraph 1 being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the company, as defined in regulation IX/1.2, shall, to the fullest extent possible, assume the obligations placed upon the master by this regulation.”

PART D

SPECIAL REQUIREMENTS FOR THE CARRIAGE OF PACKAGED IRRADIATED NUCLEAR FUEL, PLUTONIUM AND HIGH-LEVEL RADIOACTIVE WASTES ON BOARD SHIPS

Regulation 14 - Definitions

22 Existing paragraph 2 is replaced by the following:

"2 *INF cargo* means packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes carried as cargo in accordance with class 7 of the IMDG Code."

23 Existing paragraph 6 is deleted.

* Refer to the General Principles for Ship Reporting Systems and Ship Reporting Requirements, including guidelines for reporting incidents involving dangerous goods, harmful substances and/or marine pollutants adopted by the Organization by resolution A.851(20).

APPENDIX
CERTIFICATES

Record of Equipment for the Passenger Ship Safety Certificate (Form P)

24 In section 3, items 7 and 8 and related footnotes are deleted.

Record of Equipment for the Cargo Ship Safety Radio Certificate (Form R)

25 In section 2, items 7 and 8 and related footnotes are deleted.

26 Section 4 is deleted.

ANNEX 3**RESOLUTION MSC.124(75)
(adopted on 24 May 2002)****ADOPTION OF AMENDMENTS TO THE PROTOCOL OF 1988 RELATING TO
THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING FURTHER article VIII(b) of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as “the Convention”) and article VI of the Protocol of 1988 relating to the Convention (hereinafter referred to as “the 1988 SOLAS Protocol”) concerning the procedure for amending the 1988 SOLAS Protocol,

HAVING CONSIDERED, at its seventy-fifth session, amendments to the 1988 SOLAS Protocol proposed and circulated in accordance with article VIII(b)(i) of the Convention and article VI of the 1988 SOLAS Protocol,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention and article VI of the 1988 SOLAS Protocol, amendments to the appendix to the Annex to the 1988 SOLAS Protocol, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention and article VI of the 1988 SOLAS Protocol, that the said amendments shall be deemed to have been accepted on 1 July 2003, unless, prior to that date, more than one third of the Parties to the 1988 SOLAS Protocol or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world’s merchant fleet, have notified their objections to the amendments;
3. INVITES the Parties concerned to note that, in accordance with article VIII(b)(vii)(2) of the Convention and article VI of the 1988 SOLAS Protocol, the amendments shall enter into force on 1 January 2004, upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention and article VI of the 1988 SOLAS Protocol, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Parties to the 1988 SOLAS Protocol;
5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization, which are not Parties to the 1988 SOLAS Protocol.

ANNEX

**AMENDMENTS TO THE PROTOCOL OF 1988 RELATING TO THE
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

APPENDIX

**MODIFICATIONS AND ADDITIONS TO THE APPENDIX TO THE ANNEX TO
THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

Record of Equipment for the Passenger Ship Safety Certificate (Form P)

- 1 In section 3, items 7 and 8 and related footnotes are deleted.

Record of Equipment for the Cargo Ship Safety Radio Certificate (Form R)

- 2 In section 2, items 7 and 8 and related footnotes are deleted.
- 3 Section 4 is deleted.

Record of Equipment for the Cargo Ship Safety Certificate (Form C)

- 4 In section 3, items 7 and 8 and related footnotes are deleted.

ANNEX 4

**RESOLUTION MSC.125(75)
(adopted on 24 May 2002)****ADOPTION OF AMENDMENTS TO THE GUIDELINES ON THE ENHANCED
PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS
AND OIL TANKERS (RESOLUTION A.744(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 resolution A.744(18) by which the Assembly adopted the Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers,

RECALLING FURTHER article VIII(b) and regulation XI/2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974 (hereinafter referred to as "the Convention") concerning the procedure for amending the aforementioned Guidelines,

NOTING that the Assembly, when adopting resolution A.744(18), requested the Maritime Safety Committee and the Marine Environment Protection Committee to keep the Guidelines under review and update them as necessary, in the light of experience gained in their application,

HAVING CONSIDERED, at its seventy-fifth session, amendments to the Guidelines proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1. ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the Guidelines on the enhanced programme of inspections during surveys of bulk carriers and oil tankers, the text of which is set out in the Annex to the present resolution;
2. DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2003, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet, have notified their objections to the amendments;
3. INVITES SOLAS Contracting Governments to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2004 upon their acceptance in accordance with paragraph 2 above;
4. REQUESTS the Secretary-General, in conformity with article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the Annex to all Contracting Governments to the Convention;
5. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to Members of the Organization, which are not Contracting Governments to the Convention.

**AMENDMENTS TO THE GUIDELINES ON THE ENHANCED PROGRAMME OF
INSPECTIONS DURING SURVEYS OF BULK CARRIERS AND OIL TANKERS
(RESOLUTION A.744(18), AS AMENDED)**

ANNEX A

**GUIDELINES ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING
SURVEYS OF BULK CARRIERS**

- 1 The "Contents" are amended as follows:
 - .1 the existing text of 1.3 is replaced by the following:

"1.3 Repairs";
 - .2 the following new item is added after the existing 3.5:

"3.6 Additional annual survey requirements for the foremost cargo hold of ships subject to SOLAS regulation XII/9.1";
 - .3 the existing text of 4 to 4.4 is replaced by the following:

"4 INTERMEDIATE ENHANCED SURVEY
4.1 General
4.2 Bulk carriers 5-10 years of age
4.3 Bulk carriers 10-15 years of age
4.4 Bulk carriers exceeding 15 years of age";
 - .4 the existing text of 6 and 6.1 is deleted and 7, 8 and 9 are renumbered as 6, 7 and 8;
 - .5 the following new appendices 4 and 5 are added in annex 8 after appendix 3:

"Appendix 4 Ore carriers - Thickness measurement and typical transverse section indicating longitudinal and transverse members
Appendix 5 Ore carriers - Thickness measurement and close-up survey requirements";
 - .6 the following new annexes 11 and 12 are added after annex 10:

"Annex 11 Guidelines for the gauging of the vertically corrugated transverse watertight bulkhead between holds Nos.1 and 2
Annex 12 Additional annual survey requirements for the foremost cargo hold of ships subject to SOLAS regulation XII/9.1"

- 2 The following new paragraphs 1.2.15 and 1.2.16 are added after the existing paragraph 1.2.14:

“1.2.15 A *prompt and thorough repair* is a permanent repair completed at the time of survey to the satisfaction of the surveyor, therein removing the need for the imposition of any associated condition of classification.

1.2.16 *Convention* means the International Convention for the Safety of Life at Sea, 1974, as amended.”

- 3 The existing text of section 1.3 is replaced by the following:

"1.3 Repairs

1.3.1 Any damage in association with wastage over the allowable limits (including buckling, grooving, detachment or fracture), or extensive areas of wastage over the allowable limits, which affects or, in the opinion of the Administration, will affect the ship's structural, watertight or weathertight integrity, should be promptly and thoroughly repaired. Areas to be considered include:

- .1 side shell frames, their end attachments or adjacent shell plating;
- .2 deck structure and deck plating;
- .3 bottom structure and bottom plating;
- .4 watertight or oiltight bulkheads, and
- .5 hatch covers or hatch coamings.

Where adequate repair facilities are not available, the Administration may allow the ship to proceed directly to a repair facility. This may require discharging the cargo and/or temporary repairs for the intended voyage.

1.3.2 Additionally, when a survey results in the identification of significant corrosion or structural defects, either of which, in the opinion of the Administration, will impair the ship's fitness for continued service, remedial measures should be implemented before the ship continues in service.”

- 4 The following text is added at the end of paragraph 2.6.1:

"Annex 11 provides additional thickness measurement guidelines applicable to the vertically corrugated transverse watertight bulkhead between cargo hold Nos.1 and 2 on ships subject to compliance with regulation XII/6.2 of the Convention."

- 5 The following new paragraph 3.6 is added after the existing paragraph 3.5.1:

"3.6 Additional annual survey of the foremost cargo hold of ships subject to regulation XII/9.1 of the Convention in accordance with the requirements of annex 12

Ships subject to regulation XII/9.1 of the Convention are those meeting all of the following conditions:

- .1 bulk carriers of 150 m in length and upwards of single side skin construction;
- .2 carrying solid bulk cargoes having a density of 1,780 kg/m³ and above;
- .3 constructed before 1 July 1999; and
- .4 constructed with an insufficient number of transverse watertight bulkheads to enable them to withstand flooding of the foremost cargo hold in all loading conditions and remain afloat in a satisfactory condition of equilibrium as specified in regulation XII/4.3 of the Convention.”

6 The existing text of section 4 is replaced by the following:

"4 INTERMEDIATE ENHANCED SURVEY

4.1 General

4.1.1 Items that are additional to the requirements of the annual survey may be surveyed either at the second or third annual survey or between these surveys.

4.1.2 The extent of survey is dependent upon the age of the ship as specified in 4.2, 4.3 and 4.4.

4.2 Bulk carriers of 5 to 10 years of age

4.2.1 Ballast tanks

4.2.1.1 For spaces used for salt water ballast, an overall survey of representative spaces selected by the surveyor should be carried out. If such inspections reveal no visible structural defects, the examination may be limited to a verification that the protective coating remains efficient.

4.2.1.2 Where POOR coating condition, corrosion or other defects are found in salt water ballast spaces or where protective coating was not applied from the time of construction, the examination should be extended to other ballast spaces of the same type.

4.2.1.3 In salt water ballast spaces other than double bottom tanks, where a protective coating is found in POOR condition and it is not renewed, or where soft coating has been applied, or where a protective coating was not applied from the time of construction, the tanks in question should be examined and thickness measurements carried out as considered necessary at annual intervals. When such breakdown of coating is found in salt water ballast double bottom tanks, where a soft coating has been applied, or where a coating has not been applied, the tanks in question should be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurements should be carried out.

4.2.1.4 In addition to the requirements above, areas found to be suspect areas at the previous periodical survey should be overall and close-up surveyed.

4.2.2 Cargo holds

4.2.2.1 An overall survey of all cargo holds, including close-up survey of sufficient extent, minimum 25% of frames, should be carried out to establish the condition of:

- .1 shell frames including their upper and lower end attachments, adjacent shell plating, and transverse bulkheads in the forward cargo hold and one other selected cargo hold; and
- .2 areas found to be suspect areas at the previous periodical survey.

4.2.2.2 Where considered necessary by the surveyor as a result of the overall and close-up survey as described in 4.2.2.1, the survey should be extended to include a close-up survey of all of the shell frames and adjacent shell plating of that cargo hold as well as a close-up survey of sufficient extent of all remaining cargo holds.

4.2.3 Extent of thickness measurement

4.2.3.1 Thickness measurement should be carried out to an extent sufficient to determine both general and local corrosion levels at areas subject to close-up survey as described in 4.2.2.1. The minimum requirement for thickness measurements at the intermediate enhanced survey are areas found to be suspect areas at the previous periodical survey.

4.2.3.2 Where substantial corrosion is found, the extent of thickness measurements should be increased in accordance with the requirements of annex 10.

4.2.3.3 The thickness measurement may be dispensed with provided the surveyor is satisfied by the close-up survey, that there is no structural diminution and the protective coating, where applied, remains effective.

4.2.3.4 Where the protective coating in cargo holds, as referred to in the explanatory note below, is found to be in GOOD condition, the extent of close-up surveys and thickness measurements may be specially considered by the Administration.

Explanatory note:

At the time of new construction, all internal and external surfaces of hatch coamings and hatch covers, and all internal surfaces of the cargo holds, excluding the flat tank top areas and the hopper tanks sloping plating approximately 300 mm below the side shell frame and brackets, should have an efficient protective coating (epoxy coating or equivalent) applied in accordance with the manufacturer's recommendation. In the selection of coating, due consideration should be given by the owner to intended cargo conditions expected in service. For existing bulk carriers, where owners may elect to coat or recoat cargo holds as noted above, consideration may be given to the extent of the close-up and thickness measurement surveys. Prior to the coating of cargo holds of existing ships, scantlings should be ascertained in the presence of a surveyor.

4.3 Bulk carriers 10 - 15 years of age

4.3.1 Ballast tanks

4.3.1.1 For bulk carriers:

All salt water ballast tanks should be examined. If such inspections reveal no visible structural defects, the examination may be limited to a verification that the protective coating remains efficient.

4.3.1.2 For ore carriers:

- .1 all web frame rings - in one ballast wing tank;
- .2 one deck transverse - in each of the remaining ballast wing tanks;
- .3 both transverse bulkheads - in one ballast wing tank;
- .4 one transverse bulkhead - in each remaining ballast wing tank.

4.3.1.3 In addition, the requirements described in 4.2.1.2 to 4.2.1.4 apply.

4.3.2 Cargo holds

4.3.2.1 An overall survey of all cargo holds, including close-up survey of sufficient extent, minimum 25% of frames, should be carried out to establish the condition of:

- .1 shell frames including their upper and lower end attachments, adjacent shell plating, and transverse bulkheads of all cargo holds; and
- .2 areas found to be suspect areas at the previous periodical survey.

4.3.2.2 Where considered necessary by the surveyor as a result of the overall and close-up survey as described in 4.3.2.1, the survey should be extended to include a close-up survey of all of the shell frames and adjacent plating of all cargo holds.

4.3.3 Extent of thickness measurement

4.3.3.1 Thickness measurement should be carried out to an extent sufficient to determine both general and local corrosion levels at areas subject to close-up survey as described in 4.3.2.1. The minimum requirement for thickness measurements at the intermediate enhanced survey are areas found to be suspect areas at the previous periodical survey.

4.3.3.2 In addition, the requirements described in 4.2.3.2 to 4.2.3.4 apply.

4.4 Bulk carriers exceeding 15 years of age

4.4.1 The requirements of the intermediate enhanced survey should be to the same extent as the previous periodical survey required in 2 and 5.1. However, pressure testing of tanks and cargo holds used for ballast is not required unless deemed necessary by the attending surveyor.

4.4.2 In application of 4.4.1, the intermediate enhanced survey may be commenced at the second annual survey and be progressed during the succeeding year with a view to completion at the third annual survey in lieu of the application of 2.1.1."

7 The existing text of paragraph 5.2.2 is replaced by the following:

"5.2.2 Tanks and spaces should be safe for access, i.e. gas-freed, ventilated, and illuminated."

8 The text of chapter 6 is deleted and the following chapters 7, 8 and 9 are renumbered accordingly.

9 The following new subparagraph 5 is added at the end of existing paragraph 7.3.1 (renumbered paragraph 6.3.1):

".5 survey programme as required by 5.1 until such time as the periodical survey has been completed."

10 The existing text of section 8.1 (renumbered section 7.1) is replaced by the following:

"7.1 General

7.1.1 The required thickness measurements, if not carried out by the recognised organization acting on behalf of the Administration, should be witnessed by a surveyor of the recognised organization. The surveyor should be on board to the extent necessary to control the process.

7.1.2 The thickness measurement company should be part of the survey planning meeting to be held prior to commencing the survey.

7.1.3 In all cases the extend of the thickness measurements should be sufficient as to represent the actual average condition."

11 The table in annex 2 is amended as follows:

.1 In the second column " $5 < \text{AGE} \leq 10$ ", the existing text of item 6 is replaced by the following:

"6. Wind and water strakes in way of transverse sections considered under point 2 above."

.2 In the third column " $10 < \text{AGE} \leq 15$ ", the following new item 8 is added at the end:

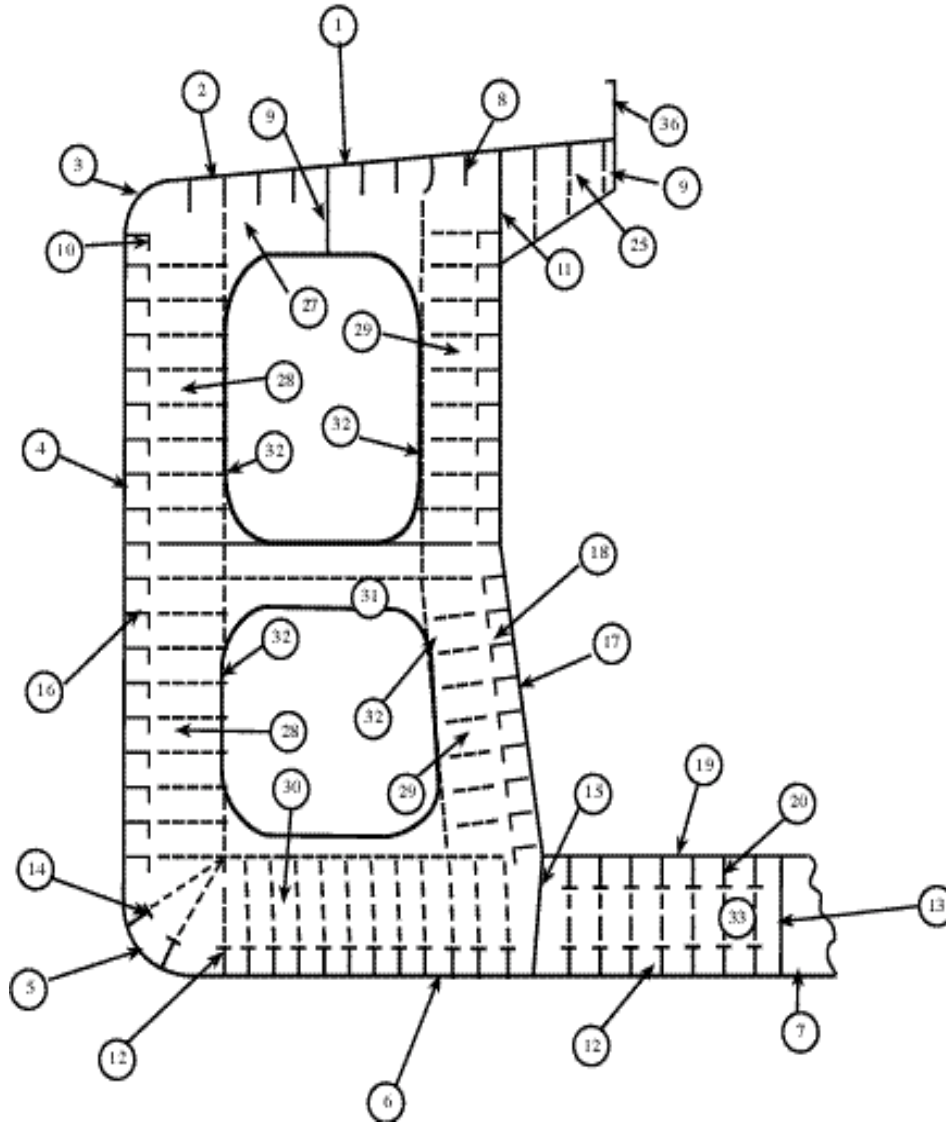
"8. As required by annex 12 for ships subject to compliance with regulation XII/6.2 of the Convention."

- 12 In annex 7, the table headed “Extract of thickness measurements” is amended as follows:
- .1 The existing text of the heading of the first column is replaced by the following:
"Position of substantially corroded tanks/areas or areas with deep pitting"
 - .2 The following new note is added at the end of the table:
"3 Any bottom plating with a pitting intensity of 20% or more, with wastage in the substantial corrosion range or having an average depth of pitting of 1/3 or more of actual plate thickness should be noted."
- 13 In annex 8, General, the following new appendices are added to the list of appendices:
- “Appendix 4 Ore carriers – Thickness measurement and typical transverse section indicating longitudinal and transverse members
 - Appendix 5 Ore carriers – Thickness measurements and close-up survey requirements”
- 14 In annex 8, the following new appendices 4 and 5 are added after appendix 3:

“Appendix 4

Ore carriers

Thickness measurement and typical transverse section indicating longitudinal and transverse members



Report on TM2-BC (1) and (2)	
1.	Strength deck plating
2.	Stringer plate
3.	Sheerstrake
4.	Side shell plating
5.	Bilge plating
6.	Bottom shell plating
7.	Keel plate

Report on TM6-BC	
36.	Hatch coamings
37.	Deck plating between hatches
38.	Hatch covers

Report on TM3-BC	
8.	Deck longitudinals
9.	Deck girders
10.	Sheerstrake longitudinals
11.	Longitudinal bulkhead top strake
12.	Bottom longitudinals
13.	Bottom girders
14.	Bilge longitudinals
15.	Longitudinal bulkhead lower strake
16.	Side shell longitudinals
17.	Longitudinal bulkhead plating (remainder)
18.	Longitudinal bulkhead longitudinal
19.	Inner bottom plating
20.	Inner bottom longitudinals

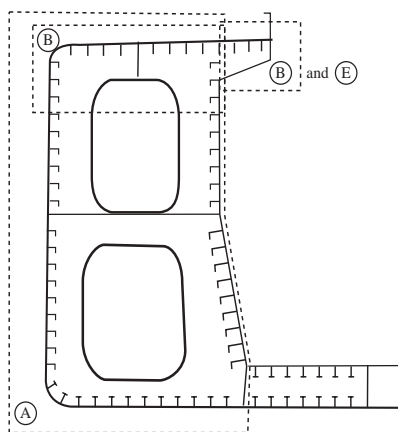
Report on TM4-BC	
25.	Deck transverse centre tank
26.	Bottom transverse centre tank
27.	Deck transverse wing tank
28.	Side shell vertical web
29.	Longitudinal bulk-head vertical web
30.	Bottom transverse wing tank
31.	Struts
32.	Transverse web face plate
33.	D.b. floors

Appendix 5

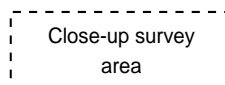
Ore carriers

Thickness measurement and close-up survey requirements

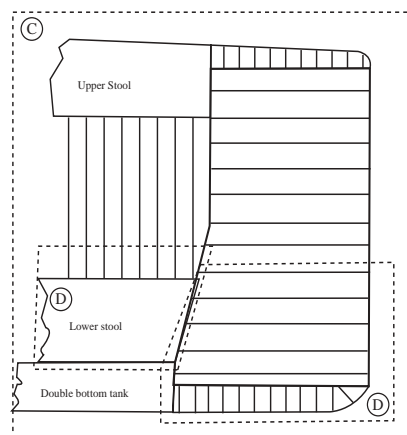
Typical transverse section close-up survey



Thickness to be reported on
TM3-T of Annex B and TM4-T of Annex B
as appropriate



Typical transverse bulkhead



Thickness to be reported on TM5-T of Annex B

Recommendations for the extent and pattern of gaugings
are indicated in Annex 10.

15 In annex 10, in the table headed "Deck structure including cross strips, main cargo hatchways, hatch covers, coamings and top side tanks", the existing text of item "a", in the column headed "Extent of measurement", across from the entry "3. Hatch covers" in the column headed "Structural members" is replaced by the following:

"a. Side and end skirts, each 3 locations".

16 The following new annexes 11 and 12 are added after existing annex 10:

“ANNEX 11

GUIDELINES FOR THE GAUGING OF THE VERTICALLY CORRUGATED TRANSVERSE WATERTIGHT BULKHEAD BETWEEN HOLDS Nos.1 AND 2

1 Gauging is necessary to determine the general condition of the structure and to define the extent of possible repairs and/or reinforcements of the vertically corrugated transverse watertight bulkhead for verification of the compliance with the Bulk carrier bulkhead and double bottom strength standards, defined in regulation XII/1.5 of the Convention.

2 Taking into account the buckling model specified in the Bulk carrier bulkhead and double bottom strength standards, defined in regulation XII/1.5 of the Convention, in the evaluation of strength of the bulkhead, it is essential to determine the thickness diminution at the critical levels shown in figures 1 and 2 of this annex.

3 The gauging should be carried out at the levels as described below. To adequately assess the scantlings of each individual vertical corrugation, each corrugation flange, web, shedder plate and gusset plate within each of the levels given below should be gauged.

Level (a) Ships without lower stool (see figure 1):

Locations:

- The mid-breadth of the corrugation flanges at approximately 200 mm above the line of shedder plates;
- The middle of gusset plates between corrugation flanges, where fitted;
- The middle of the shedder plates;
- The mid-breadth of the corrugation webs at approximately 200 mm above the line of shedder plates.

Level (b) Ships with lower stool (see figure 2):

Locations:

- The mid-breadth of the corrugation flanges at approximately 200 mm above the line of shedder plates;
- The middle of gusset plates between corrugation flanges, where fitted;
- The middle of the shedder plates;
- The mid-breadth of the corrugation webs at approximately 200 mm above the line of shedder plates.

Level (c) Ships with or without lower stool (see figures 1 and 2):

Locations:

- The mid-breadth of the corrugation flanges and webs at about the mid-height of the corrugation.

4 Where the thickness changes within the horizontal levels, the thinner plate should be gauged.

5 Steel renewal and/or reinforcement should comply with the Bulk carrier bulkhead and double bottom strength standards, defined in regulation XII/1.5 of the Convention.

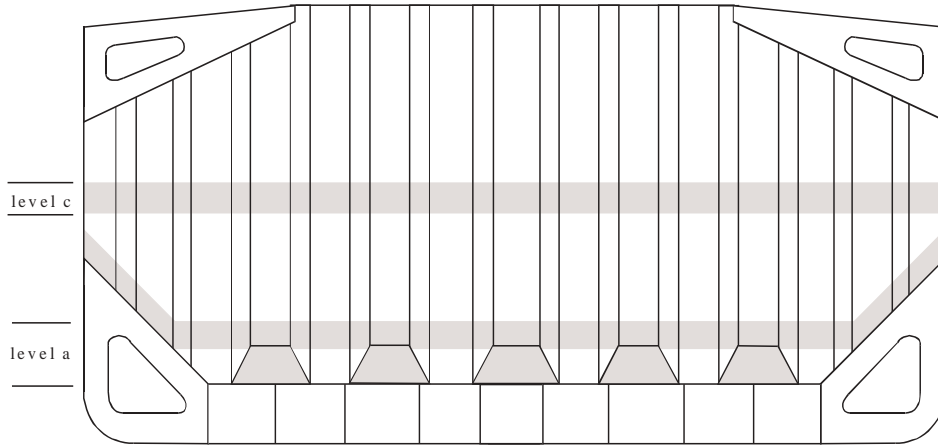


Figure 1. Ships without lower stool

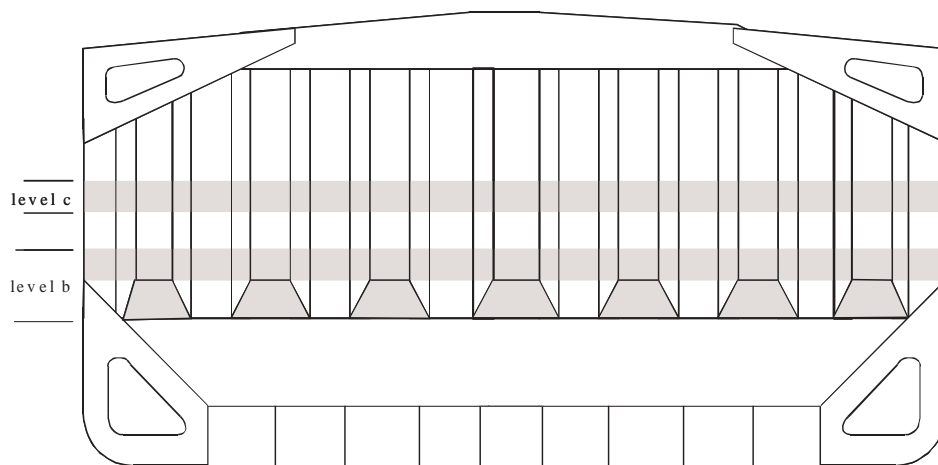


Figure 2. Ships with lower stool

ANNEX 12

ADDITIONAL ANNUAL SURVEY REQUIREMENTS FOR THE FOREMOST CARGO HOLD OF SHIPS SUBJECT TO SOLAS REGULATION XII/9.1

1 General

In the case of bulk carriers over 5 years of age, the annual survey should include, in addition to the requirements of the annual surveys prescribed in chapter 3 of the present Guidelines, an examination of the following items.

2 Extent of survey

2.1 For bulk carriers of 5 - 15 years of age:

2.1.1 An overall survey of the foremost cargo hold, including close-up survey of sufficient extent, minimum 25% of frames, should be carried out to establish the condition of:

- .1 shell frames including their upper and lower end attachments, adjacent shell plating, and transverse bulkheads; and
- .2 areas found to be suspect areas at the previous periodical survey.

2.1.2 Where considered necessary by the surveyor as a result of the overall and close-up survey as described in 2.1.1 above, the survey should be extended to include a close-up survey of all of the shell frames and adjacent shell plating of the cargo hold.

2.2 For bulk carriers exceeding 15 years of age:

An overall survey of the foremost cargo hold, including close-up survey should be carried out to establish the condition of:

- .1 all shell frames including their upper and lower end attachments, adjacent shell plating, and transverse bulkheads; and
- .2 areas found to be suspect areas at the previous periodical survey.

3 Extent of thickness measurement

3.1 Thickness measurement should be carried out to an extent sufficient to determine both general and local corrosion levels at areas subject to close-up survey, as described in 2.1 and 2.2. The minimum requirement for thickness measurements are areas found to be suspect areas at the previous periodical survey. Where substantial corrosion is found, the extent of thickness measurements should be increased with the requirements of annex 10.

3.2 The thickness measurement may be dispensed with provided the surveyor is satisfied by the close-up survey, there is no structural diminution and the protective coating, where applied, remains effective.

4 Special consideration

Where the protective coating, as referred to in the explanatory note below, in the foremost cargo hold is found to be in GOOD condition, the extent of close-up surveys and thickness measurements may be specially considered.

Explanatory note:

At the time of new construction, all internal and external surfaces of hatch coamings and hatch covers, and all internal surfaces of the cargo holds, excluding the flat tank top areas and the hopper tanks sloping sloping plating approximately 300 mm below the side shell frame and brackets, should have an efficient protective coating (epoxy coating or equivalent) applied in accordance with the manufacturer's recommendation. In the selection of coating due consideration should be given by the owner to intended cargo conditions expected in service.

For existing bulk carriers, where owners may elect to coat or recoat cargo holds as noted above, consideration may be given to the extent of the close-up and thickness measurement surveys. Prior to the coating of cargo holds of existing ships, scantlings should be ascertained in the presence of a surveyor."

ANNEX B

GUIDELINES ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF OIL TANKERS

17 The "Contents" are amended as follows:

.1 The existing text of 1.3 is replaced by the following:

"1.3 Repairs"

.2 The existing text of 4 to 4.4 is replaced by the following:

"4 INTERMEDIATE ENHANCED SURVEY

4.1 General

4.2 Oil tankers 5-10 years of age

4.3 Oil tankers 10-15 years of age

4.4 Oil tankers exceeding 15 years of age"

18 The following new paragraphs 1.2.13 is added after the existing paragraph 1.2.12:

"1.2.13 A *prompt and thorough repair* is a permanent repair completed at the time of survey to the satisfaction of the surveyor, therein removing the need for the imposition of any associated condition of classification."

19 The existing text of section 1.3 is replaced by the following:

"1.3 Repairs

1.3.1 Any damage in association with wastage over the allowable limits (including buckling, grooving, detachment or fracture), or extensive areas of wastage over the allowable limits, which affects or, in the opinion of the Administration, will affect the ship's structural, watertight or weathertight integrity, should be promptly and thoroughly repaired. Areas to be considered include:

- .1 side shell frames, their end attachments or adjacent shell plating;
- .2 deck structure and deck plating;
- .3 bottom structure and bottom plating;
- .4 watertight or oiltight bulkheads; and
- .5 hatch covers or hatch coamings.

Where adequate repair facilities are not available, the Administration may allow the ship to proceed directly to a repair facility. This may require discharging the cargo and/or temporary repairs for the intended voyage.

1.3.2 Additionally, when a survey results in the identification of significant corrosion or structural defects, either of which, in the opinion of the Administration, will impair the ship's fitness for continued service, remedial measures should be implemented before the ship continues in service."

20 In existing paragraph 2.1.3 the words “, as required in 2.1.5,” are inserted between the words “piping” and “is in a satisfactory condition”.

21 The existing text of paragraph 2.1.5 is replaced by the following:

"2.1.5 Cargo piping on deck, including crude oil washing (COW) piping, and cargo and ballast piping within the above tanks and spaces should be examined and operationally tested to working pressure to attending surveyor's satisfaction to ensure that tightness and condition remain satisfactory. Special attention should be given to any ballast piping in cargo tanks and cargo piping in ballast tanks and void spaces, and surveyors should be advised on all occasions when this piping, including valves and fittings, are open during repair periods and can be examined internally."

22 The existing text of paragraph 2.3.1 is replaced by the following:

"Where provided, the condition of the corrosion prevention system of cargo tanks should be examined. A ballast tank where a protective coating is found in POOR condition and it is not renewed, or where soft coating has been applied, or where a protective coating has not been applied from the time of construction, the tank in question should be examined at annual intervals. Thickness measurements should be carried out as deemed necessary by the surveyor."

- 23 The following new paragraph is added after the end of the existing paragraph 3.5.2:

"3.5.3. For oil tankers exceeding 15 years of age, all ballast tanks adjacent to (i.e. with a common plane boundary) a cargo tank with any means of heating should be examined internally. When considered necessary by the surveyor, thickness measurements should be carried out and if the results of these thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements should be increased in accordance with the requirements of annex 4. Tanks or areas where coating was found to be in GOOD condition at the previous intermediate or periodical survey may be specially considered by the Administration."

- 24 The existing text of paragraphs 4 to 4.4.2 is replaced by the following:

"4 INTERMEDIATE ENHANCED SURVEY

4.1 General

4.1.1 Items that are additional to the requirements of the annual survey may be surveyed either at the second or third annual survey or between these surveys.

4.1.2 The survey extent of cargo and ballast tanks dependent on the age of the ship is specified in 4.2, 4.3 and 4.4.

4.1.3 For weather decks, an examination as far as applicable of cargo, crude oil washing, bunker, ballast, steam and vent piping systems as well as vent masts and headers. If upon examination there is any doubt as to the condition of the piping, the piping may be required to be pressure tested, thickness measured or both.

4.2 Oil tankers of 5 to 10 years of age

4.2.1 The requirements of 4.1.3 apply.

4.2.2 For tanks used for salt water ballast, an overall survey of representative tanks selected by the surveyor should be carried out. If such inspections reveal no visible structural defects, the examination may be limited to a verification that the protective coating remains efficient.

4.2.3 Where POOR coating condition, corrosion or other defects are found in salt water ballast tanks or where a protective coating was not applied from the time of construction, the examination should be extended to other ballast tanks of the same type.

4.2.4 In salt water ballast tanks where a protective coating is found in POOR condition and it is not renewed, or where soft coating has been applied, or where a protective coating was not applied from the time of construction, the tanks in question should be examined and thickness measurements carried out as considered necessary at annual intervals.

4.3 Oil tankers of 10 to 15 years of age

4.3.1 The requirements of 4.2 apply.

4.3.2 An overall survey of at least two representative cargo tanks should be carried out.

4.3.3 For tanks used for salt water ballast including combined cargo/ballast tanks, an overall survey of all such tanks should be carried out. If such survey reveals no visible structural defects, the survey may be limited to a verification that the protective coatings remain efficient.

4.3.4 Extent of close up survey:

- .1 Ballast tanks: To the same extent as previous periodical survey.
- .2 Cargo tanks: Two combined cargo/ballast tanks. The extent of survey should be based on the record of the previous periodical survey, and repair history of the tanks.

The extent of close-up surveys may be extended as stated in 2.4.3. For areas in tanks where coatings are found to be in GOOD condition, the extent of the close-up surveys may be specially considered by the Administration.

4.3.5 Extent of thickness measurement

The minimum requirements for thickness measurements at the intermediate survey are areas found to be suspect areas at the previous periodical survey. Where substantial corrosion is found, the extent of the thickness measurements should be increased in accordance with the requirements of annex 4.

4.4 Oil tankers exceeding 15 years of age

4.4.1 The requirements of the intermediate survey should be to the same extent as the previous periodical survey as required in 2 and 5.1. However, pressure testing of cargo and ballast tanks is not required unless deemed necessary by the attending surveyor.

4.4.2 In application of 4.4.1, the intermediate enhanced survey may be commenced at the second annual survey and be progressed during the succeeding year with a view to completion at the third annual survey in lieu of the application of 2.1.1.”

25 The existing text of paragraph 5.2.2 is replaced by the following:

"5.2.2 Tanks and spaces should be safe for access, i.e. gas-freed, ventilated and illuminated."

26 The following new subparagraph .6 is added after subparagraph .5 of existing paragraph 6.3.1:

".6 survey programme as required by 5.1 until such time as the periodical survey has been completed,".

27 The existing text of paragraph 7.1.1 is replaced by the following:

"7.1.1 The required thickness measurements, if not carried out by the recognised organization acting on behalf of the Administration, should be witnessed by a surveyor of the recognised organization. The surveyor should be on board to the extent necessary to control the process.

7.1.2 The thickness measurement company should be part of the survey planning meeting to be held prior to commencing the survey.

7.1.3 In all cases the extent of the thickness measurements should be sufficient as to represent the actual average condition."

28 Annex 9 is amended as follows:

.1 In the Condition evaluation report under the heading "Contents of condition evaluation report" after the existing Part 3, the following new Part 4 is inserted:

"Part 4 - Cargo and ballast piping system: - Examined
- Operationally tested"

and the existing parts 4 to 9 are renumbered as parts 5 to 10;

.2 The table headed "Extract of thickness measurements" is amended as follows:

.1 The existing text of the heading of the first column is replaced by the following:

"Position of substantially corroded tanks/areas or areas with deep pitting"

.2 The following new note is added at the end of the table:

"3 Any bottom plating with a pitting intensity of 20% or more, with wastage in the substantial corrosion range or having an average depth of pitting of 1/3 or more of actual plate thickness should be noted."

29 In annex 11, the fourth sentence of the existing paragraph 3.1 is replaced by the following:

"The approach is basically an evaluation of the risk based on the knowledge and experience related to design and corrosion."

ANNEX 5

PROPOSED AMENDMENTS TO SOLAS CHAPTER XII

CHAPTER XII

ADDITIONAL SAFETY MEASURES FOR BULK CARRIERS

The following new regulations 12 and 13 are added at the end of the chapter:

“Regulation 12**Hold, ballast and dry space water ingress alarms**

(This regulation applies to bulk carriers regardless of their date of construction)

- 1 Bulk carriers shall be fitted with water level detectors:
 - .1 in each cargo hold, giving audible and visual alarms, one when the water level above the inner bottom in any hold reaches a height of 0.5 m and another at a height not less than 15% of the depth of the cargo hold but not more than 2.0 m. On bulk carriers to which regulation 9.2 applies, only the latter alarm need be installed. The water level detectors shall be fitted in the aft end of the cargo holds. For cargo holds which are used for water ballast, an alarm overriding device may be installed. The visual alarms shall clearly discriminate between the two different level detectors in each hold;
 - .2 in any ballast tank forward of the collision bulkhead required by regulation II-1/11, giving an audible and visual alarm when the liquid in the tank reaches a level not exceeding 10% of the tank capacity. An alarm overriding device may be installed to be activated when the tank is in use; and
 - .3 in any dry or void space other than a chain cable locker, any part of which extends forward of the foremost cargo hold, giving an audible and visual alarm at a water level of 0.1 m above the deck. Such alarms need not be provided in enclosed spaces the volume of which does not exceed 0.1% of the ship's maximum displacement volume.
- 2 The audible and visual alarms specified in paragraph 1 shall be located on the navigation bridge.
- 3 Bulk carriers constructed before [1 July 2004] shall comply with the requirements of this regulation not later than the date of the first annual, intermediate or renewal survey of the ship to be carried out after [1 July 2004].

Regulation 13

Availability of pumping systems

(This regulation applies to bulk carriers regardless of their date of construction)

1 On bulk carriers, the means for draining and pumping ballast tanks and bilges of dry spaces, any part of which is located forward of the collision bulkhead, shall be capable of being brought into operation from a readily accessible enclosed space, the location of which is accessible from the navigation bridge or propulsion machinery control position without traversing exposed freeboard or superstructure decks. Where pipes serving such tanks or bilges pierce the collision bulkhead, as an alternative to the valve control specified in regulation II-1/11.4, valve operation by means of remotely operated actuators may be accepted provided the location of such valve controls complies with this regulation.

2 Bulk carriers constructed before [1 July 2004] shall comply with the requirements of this regulation not later than the date of the first intermediate or renewal survey of the ship to be carried out after [1 July 2004], however in no case later than [1 July 2007].”

ANNEX 6

**NEW AND AMENDED TRAFFIC SEPARATION SCHEMES AND
ASSOCIATED ROUTEING MEASURES**

OFF THE MEDITERRANEAN COAST OF EGYPT

(Reference charts: British Admiralty chart No. 2573, 2574 and 2578)

Note: All positions are in degrees, minutes and decimals of a minute and are referred to World Geodetic System 1984 Datum (WGS 84).

Description of the new traffic separation schemes:**Western Approach to Mina Dumyat (143° - 323°)**

(a) A separation line connects the following geographical positions:

- | | | |
|-----|-------------|------------|
| (1) | 31°38'.60N, | 31°47'.15E |
| (2) | 31°45'.10N, | 31°41'.50E |

(b) A traffic lane for northbound traffic is established between the separation line and a separation line connecting the following geographical positions:

- | | | |
|-----|-------------|------------|
| (3) | 31°39'.00N, | 31°47'.80E |
| (4) | 31°45'.10N, | 31°42'.40E |

(c) A traffic lane for southbound traffic is established between the separation line and a separation line connecting the following geographical positions:

- | | | |
|-----|-------------|------------|
| (5) | 31°37'.75N, | 31°47'.00E |
| (6) | 31°45'.10N, | 31°40'.50E |

Precautionary area

(d) A precautionary area north Dumyat is established by a line connecting the following geographical positions:

- | | | |
|--|-------------|------------|
| | 31°37'.75N, | 31°47'.00E |
| | 31°38'.60N, | 31°47'.15E |
| | 31°39'.00N, | 31°47'.80E |
| | 31°38'.45N, | 31°48'.25E |
| | 31°37'.50N, | 31°48'.00E |

Eastern Approaches to Mina Dumyat (055°-235°)

(a) A separation line connects the following geographical positions:

- | | | |
|-----|-------------|------------|
| (7) | 31°38'.45N, | 31°48'.25E |
| (8) | 31°44'.05N, | 31°57'.55E |

- (b) A traffic lane for northbound traffic is established between the separation line and a separation line connecting the following geographical positions:

(9) 31°37'.50N, 31°48'.00E
(10) 31°43'.55N, 31°58'.10E

- (c) A traffic lane for southbound traffic is established between the separation line and a separation line connecting the following geographical positions:

(11) 31°39'.00N, 31°47'.80E
(12) 31°44'.50N, 31°57'.00E

Western Approaches to Bur Said (135° - 315°)

- (a) A separation zone half mile wide as the following geographical positions:

(13) 31°44'.25N, 31°59'.30E
(14) 31°44'.00N, 31°58'.85E
(15) 31°31'.85N, 32°12'.95E
(16) 31°32'.20N, 32°13'.40E

- (b) A traffic lane for northbound traffic is established between the separation line and a separation line connecting the following geographical positions (one mile wide):

(17) 31°32'.70N, 32°14'.00E
(18) 31°44'.70N, 32°00'.05E

- (c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions (one mile wide):

(19) 31°31'.30N, 32°12'.35E
(20) 31°43'.55N, 31°58'.10E

Eastern Approach to Bur Said (059°-239°)

- (a) A separation zone half mile wide as the following geographical positions:

(21) 31°35'.45N, 32°22'.95E
(22) 31°35'.85N, 32°22'.65E
(23) 31°42'.55N, 32°35'.65E
(24) 31°42'.15N, 32°35'.95E

- (b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions (one mile wide):

(25) 31°34'.80N, 32°23'.40E
(26) 31°46'.00N, 32°45'.30E

- (c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions (one mile wide):

(27)	31°46'.00N,	32°35'.20E
(28)	31°43'.20N,	32°35'.20E
(29)	31°35'.80N,	32°20'.80E

Precautionary area

- (d) A precautionary area north west Bur Said established by a line connecting the following geographical positions:

31°45'.40N,	31°55'.95E
31°43'.55N,	31°58'.10E
31°44'.70N,	32°00'.05E
31°45'.40N,	31°59'.52E

EXTENSION OF THE DEEP WATER ROUTE DW 17M INTO THE TRAFFIC SEPARATION SCHEME SOUTH OF GEDSER

AMENDED DEEP-WATER ROUTE NORTH-EAST OF GEDSER

(Reference chart: German 163, INT 1351, 2001 edition.)

Note: This chart is based on WGS 84

Description of the deep-water route

A deep-water route with a minimum depth of water below mean sea level of 17 metres is bounded by a line connecting the following geographical positions:

Existing No.	New No.	Geographical positions in WGS 84		
	(1)	54°27'.10N,	012°10'.50E	added
	(2)	54°27'.73N,	012°11'.30E	added
(1)	(3)	54°31'.30N,	012°12'.80E	amended
(2)	(4)	54°36'.46N,	012°15'.83E	
(3)	(5)	54°46'.86N,	012°43'.23E	
(4)	(6)	54°46'.06N,	012°44'.03E	
(5)	(7)	54°35'.36N,	012°16'.93E	
(6)	(8)	54°31'.00N,	012°15'.20E	amended
	(9)	54°27'.40N,	012°13'.10E	added
	(10)	54°26'.57N,	012°11'.90E	added

Note:

Ships, other than ships which, because of their draught, must use the deep-water route, are recommended to use the area outside the deep-water route, in such manner that eastbound ships proceed on the east and south side of the deep-water route and westbound ships on the north and west side.

Description of the amended Ushant traffic separation scheme:

(Reference chart: 6989)

Note: all positions are in degrees, minutes and decimals of a minute and are referred to World Geodetic System 1984 Datum (WGS 84).

1 The Ushant traffic separation scheme consists of:

Two traffic lanes;

A two-way traffic route;

An Inshore traffic zone;

An outer separation zone;

A separation zone between the traffic lanes;

A separation zone between the northeast bound lane and the two-way route;

A separation zone between the two-way traffic route and the inshore traffic zone.

2 The direction of navigation will be as follows:

- Northeast bound traffic, course on ground: 028° as far as the line of the turning point at 315° from the Créac'h light, then: 060° as far as the north-east boundary of the scheme.
- Southwestbound traffic, course on ground: 240° as far as the line of the turning point at 315° from the Créac'h light, then: 208° as far as the south-west boundary of the scheme.

Description of the amended traffic separation scheme:

(a) A separation zone bounded by a line connecting the following geographical positions:

	Latitude	Longitude
Point 1	48°57'.00 N	005°32'.50 W
Point 2	48°52'.75 N	005°28'.60 W
Point 3	48°48'.60 N	005°39'.60 W
Point 4	48°37'.40 N	005°48'.60 W
Point 5	48°39'.70 N	005°55'.20 W
Point 6	48°52'.05 N	005°45'.00 W

(b) A traffic lane for ships leaving the English Channel between the above separation zone and the following geographical positions:

	Latitude	Longitude
Point 7	48°42'.00 N	006°01'.60 W
Point 8	48°55'.60 N	005°50'.60 W
Point 9	49°01'.10 N	005°36'.05 W

- (c) A traffic lane for ships entering the English Channel between that separation zone and the following geographical positions:

	Latitude	Longitude
Point 10	48°35'.10 N	005°42'.30 W
Point 11	48°45'.00 N	005°34'.30 W
Point 12	48°48'.60 N	005°25'.10 W

- (d) An outer separation zone, seaward of the Ouessant traffic separation scheme, bounded by a line connecting points 7, 8, 9 and the following geographical positions:

	Latitude	Longitude
Point 17	48°42'.60 N	006°02'.80 W
Point 18	48°56'.40 N	005°51'.60 W
Point 19	49°02'.00 N	005°36'.80 W

- (e) A separation zone bounded by a line connecting points 10, 11, 12 and the following geographical positions:

	Latitude	Longitude
Point 13	48°39'.70 N	005°14'.70 W
Point 14	48°30'.60 N	005°26'.30 W

- (f) A separation zone bounded by a line connecting the following geographical positions

	Latitude	Longitude
Point 15	48°29'.80 N	005°23'.50 W
Point 16	48°38'.00 N	005°12'.90 W
Point 20	48°37'.20 N	005°11'.90 W
Point 21	48°29'.39 N	005°22'.05 W

- (g) An inshore traffic zone bounded by a line connecting points 20, 21, and the following geographical positions:

	Latitude	Longitude
Men Korn Light	48°28'.00 N	005°01'.40 W
Jument Light	48°25'.35 N	005°08'.00 W

- (h) A two-way traffic route 2 miles wide established between the separation zones described in paragraphs (e) and (f), for passenger ships operating regular schedules to or from a Channel port situated west of meridian 1°W, and for ships sailing between ports situated between Cape de la Hague and Cape Finisterre, except for ships carrying oils listed in appendix 1 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), and ships carrying in bulk the substances listed in categories A and B listed in appendices I and II of Annex II of that Convention.”

3 Special provision

Northeastbound traffic lane in 2(c)

Ships carrying oils listed in appendix 1 of Annex I of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78), and ships carrying in bulk the substances listed in categories A and B listed in appendices I and II of Annex II of that Convention must, as far as possible, sail in the outer part of this lane.

IN THE APPROACHES TO LOS ANGELES – LONG BEACH

(Reference Chart: United States 18746, 2000 edition.

Note: This chart is based on North American 1983 Datum.)

Description of the amended traffic separation scheme

The traffic separation scheme “In the Approaches to Los Angeles – Long Beach” consists of three parts:

Western approach

(a) A separation zone is bounded by a line connecting the following geographical positions:

- | | | |
|-----|------------|-------------|
| (1) | 33°37'.70N | 118°17'.60W |
| (2) | 33°36'.50N | 118°17'.60W |
| (3) | 33°36'.50N | 118°23'.10W |
| (4) | 33°43'.20N | 118°36'.90W |
| (5) | 33°44'.90N | 118°35'.70W |
| (6) | 33°37'.70N | 118°20'.90W |

(b) A traffic lane for northbound coastwise traffic is established between the separation zone and a line connecting the following geographical positions:

- | | | |
|-----|------------|-------------|
| (7) | 33°38'.70N | 118°17'.60W |
| (8) | 33°38'.70N | 118°20'.60W |
| (9) | 33°45'.80N | 118°35'.10W |

(c) A traffic lane for southbound coastwise traffic is established between the separation zone and a line connecting the following geographical positions:

- | | | |
|------|------------|-------------|
| (10) | 33°35'.50N | 118°17'.60W |
| (11) | 33°35'.50N | 118°23'.43W |
| (12) | 33°42'.30N | 118°37'.50W |

Southern approach

(a) A separation zone is established bounded by a line connecting the following geographic position:

(13)	33°35'.50N	118°10'.30W
(14)	33°35'.50N	118°12'.75W
(15)	33°19'.00N	118°05'.60W
(16)	33°19'.70N	118°03'.50W

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(17)	33°35'.50N	118°09'.00W
(18)	33°20'.00N	118°02'.30W

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(19)	33°35'.50N	118°14'.00W
(20)	33°18'.70N	118°06'.75W

Precautionary area

(a) The precautionary area consists of the water area enclosed by the Los Angeles - Long Beach breakwater and a line connecting Point Fermin Light at 33°42'.30N, 118°17'.60W, with the following geographical positions:

(10)	33°35'.50N	118°17'.60W
(17)	33°35'.50N	118°09'.00W
(21)	33°37'.70N	118°06'.50W
(22)	33°43'.40N	118°10'.80W

Note: Pilot boarding areas are located in the precautionary area. Due to heavy vessel traffic, mariners are advised not to anchor or linger in this precautionary area except to pick up or disembark a pilot.

IN THE STRAIT OF JUAN DE FUCA AND ITS APPROACHES

(Reference charts: United States 18400, 2000 edition; 18421, 2000 edition; 18440, 2000 edition; 18460, 1998 edition; 18465, 1995 edition; 18480, 1999 edition; 18485, 1998 edition; Canadian Hydrographic Service 3440, 1998 edition. *Note:* These charts are based on North American 1983 Datum.)

Description of the amended traffic separation scheme

Part I

In the approaches to the Strait of Juan de Fuca there are two traffic separation schemes and a precautionary area:

Western approach

(a) A separation zone is bounded by a line connecting the following geographical positions:

(1) 48°30'.10N	125°09'.00W
(2) 48°30'.10N	125°04'.67W
(3) 48°29'.11N	125°04'.67W
(4) 48°29'.11N	125°09'.00W

(b) A traffic lane for westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(5) 48°31'.09N	125°04'.67W
(6) 48°31'.93N	125°09'.00W

(c) A traffic lane for eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(7) 48°27'.31N	125°09'.00W
(8) 48°28'.13N	125°04'.67W

South-western approach

(a) A separation zone is bounded by a line connecting the following geographical positions:

(10) 48°23'.99N	125°06'.54W
(11) 48°27'.63N	125°03'.38W
(12) 48°27'.14N	125°02'.08W
(13) 48°23'.50N	125°05'.26W

(b) A traffic lane for north-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(14) 48°22'.55N	125°02'.80W
(15) 48°26'.64N	125°00'.81W

(c) A traffic lane for south-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(8) 48°28'.13N	125°04'.67W
(9) 48°24'.94N	125°09'.00W

Precautionary area

A precautionary area "JF", is bounded by a line connecting the following geographical positions:

(5) 48°31'.09N	125°04'.67W
(2) 48°30'.10N	125°04'.67W
(3) 48°29'.11N	125°04'.67W
(8) 48°28'.13N	125°04'.67W
(11) 48°27'.63N	125°03'.38W
(12) 48°27'.14N	125°02'.08W
(15) 48°26'.64N	125°00'.81W

(16) 48°28'.13N	124°57'.90W
(18) 48°29'.11N	125°00'.00W
(25) 48°30'.10N	125°00'.00W
(17) 48°31'.09N	125°00'.00W

thence back to the point of origin at (5).

Part II

In the Strait of Juan de Fuca there are four separation schemes and a precautionary area:

Western lanes

(a) A separation zone is bounded by a line connecting the following geographical positions:

(18) 48°29'.11N	125°00'.00W
(19) 48°29'.11N	124°43'.78W
(20) 48°13'.89N	123°54'.84W
(21) 48°13'.89N	123°31'.98W
(22) 48°14'.49N	123°31'.98W
(23) 48°17'.02N	123°56'.46W
(24) 48°30'.10N	124°43'.50W
(25) 48°30'.10N	125°00'.00W

(b) A traffic lane for north-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(26) 48°16'.45N	123°30'.42W
(27) 48°15'.97N	123°33'.54W
(28) 48°18'.00N	123°56'.07W
(29) 48°32'.00N	124°46'.57W
(30) 48°31'.09N	124°47'.13W
(17) 48°31'.09N	125°00'.00W

Traffic may exit the lane between points (29) and (30) or may remain in the lane between points (30) and (17) en route to the precautionary area.

(c) A traffic lane for south-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(16) 48°28'.13N	124°57'.90W
(31) 48°28'.13N	124°44'.07W
(32) 48°12'.90N	123°55'.24W
(33) 48°12'.94N	123°32'.89W

Southern lanes

(a) A separation zone is bounded by a line connecting the following geographical positions:

(34) 48°10'.82N	123°25'.44W
(35) 48°12'.38N	123°28'.68W
(36) 48°12'.90N	123°28'.68W
(37) 48°12'.84N	123°27'.46W
(38) 48°10'.99N	123°24'.84W

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(39) 48°11'.24N	123°23'.82W
(40) 48°12'.72N	123°25'.34W

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(33) 48°12'.94N	123°32'.89W
(41) 48°09'.42N	123°24'.24W

Northern lanes

(a) A separation zone is bounded by a line connecting the following geographical positions:

(42) 48°21'.15N	123°24'.83W
(43) 48°16'.16N	123°28'.50W
(44) 48°15'.77N	123°27'.18W
(45) 48°20'.93N	123°24'.26W

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

(46) 48°21'.83N	123°25'.56W
(26) 48°16'.45N	123°30'.42W

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

(47) 48°20'.93N	123°23'.22W
(48) 48°15'.13N	123°25'.62W

Eastern lanes

(a) A separation zone is established bounded by a line connecting the following geographical positions:

(49) 48°13'.22N	123°15'.91W
(50) 48°14'.03N	123°25'.98W
(51) 48°13'.54N	123°25'.86W
(52) 48°12'.89N	123°16'.69W

(b) A traffic lane for westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(54) 48°14'.27N	123°13'.41W
(55) 48°14'.05N	123°16'.08W
(48) 48°15'.13N	123°25'.62W

(c) A traffic lane for eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(40) 48°12'.72N	123°25'.34W
(53) 48°12'.34N	123°18'.01W

Precautionary area

A precautionary area "PA", is bounded by a line connecting the following geographical positions:

(33) 48°12'.94N	123°32'.89W
(21) 48°13'.89N	123°31'.98W
(22) 48°14'.49N	123°31'.98W
(26) 48°16'.45N	123°30'.42W
(43) 48°16'.16N	123°28'.50W
(44) 48°15'.77N	123°27'.18W
(48) 48°15'.13N	123°25'.62W
(50) 48°14'.03N	123°25'.98W
(51) 48°13'.54N	123°25'.86W
(40) 48°12'.72N	123°25'.34W
(37) 48°12'.84N	123°27'.46W
(36) 48°12'.90N	123°28'.68W

thence back to point of origin at (33).

IN PUGET SOUND AND ITS APPROACHES

(Reference charts: United States 18421, 2000 edition; 18429, 1999 edition; 18430, 1996 edition; 18440, 2000 edition. *Note:* These charts are based on North American 1983 Datum.)

Description of the traffic separation scheme

The traffic separation scheme "In Puget Sound and its approaches" consists of a series of traffic separation schemes and precautionary areas broken into three geographic designations as follows:

- Part I: Rosario Strait
- Part II: Approaches to Puget Sound
- Part III: Puget Sound

Part I

Rosario Strait

(a) A separation zone is bounded by a line connecting the following geographical positions:

(1) 48°48'.98N	122°55'.20W
(2) 48°46'.76N	122°50'.43W
(3) 48°45'.56N	122°48'.36W
(4) 48°45'.97N	122°48'.12W
(5) 48°46'.39N	122°50'.76W
(6) 48°48'.73N	122°55'.68W

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(7) 48°49'.49N	122°54'.24W
(8) 48°47'.14N	122°50'.10W
(9) 48°46'.35N	122°47'.50W

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(10) 48°44'.95N	122°48'.28W
(11) 48°46'.76N	122°53'.10W
(12) 48°47'.93N	122°57'.12W

(d) Connecting with precautionary "CA", the waters contained within a circle of radius 1.24 miles centered at geographical position 48°45'.30N, 122°46'.50W.

(e) A separation zone is bounded by a line connecting the following geographical positions:

(13) 48°44'.27N	122°45'.53W
(14) 48°41'.72N	122°43'.50W
(15) 48°41'.60N	122°43'.82W
(16) 48°44'.17N	122°45'.87W

(f) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(17) 48°44'.62N	122°44'.96W
(18) 48°41'.80N	122°42'.70W

(g) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(19) 48°44'.08N	122°46'.65W
(20) 48°41'.25N	122°44'.37W

(h) Connecting with precautionary "C", the waters contained within a circle of radius 1.24 miles centered at geographical position 48°40'.55N, 122°42'.80W.

(i) A two-way route is established between the following geographical positions:

(21) 48°39'.33N	122°42'.73W
(22) 48°36'.08N	122°45'.00W
(23) 48°26'.82N	122°43'.53W
(24) 48°27'.62N	122°45'.53W
(25) 48°29'.48N	122°44'.77W
(26) 48°36'.13N	122°45'.80W
(27) 48°38'.38N	122°44'.20W
(28) 48°39'.63N	122°44'.03W

(j) Connecting with precautionary area "RB", bounded to the north by the arc of a circle of radius 1.24 miles centered on geographical position 48°26'.38N, 122°45'.27W and connecting the following geographical positions:

(42) 48°25'.97N	122°47'.03W
(83) 48°25'.55N	122°43'.93W

and bounded to the south by a line connecting the following geographical positions:

(42) 48°25'.97N	122°47'.03W
(43) 48°24'.62N	122°48'.68W
(38) 48°23'.75N	122°47'.47W
(37) 48°25'.20N	122°45'.73W
(86) 48°25'.17N	122°45'.62W
(87) 48°24'.15N	122°45'.27W
(84) 48°24'.08N	122°43'.38W
(83) 48°25'.55N	122°43'.93W

Part II

Approaches to Puget Sound

The traffic separation scheme in the approaches to Puget Sound consists of a north-east/south-west approach, a north-west/south-east approach, a north/south approach and an east/west approach connecting with precautionary areas as follows:

North-east/south-west approach

(a) A separation zone is bounded by a line connecting the following geographical positions:

(29) 48°24'.13N	122°47'.97W
(30) 48°20'.32N	122°57'.02W
(31) 48°20'.53N	122°57'.22W
(32) 48°24'.32N	122°48'.22W

connecting with precautionary area "RA", the waters contained within a circle of radius 1.24 miles centered at 48°19'.77N, 122°58'.57W, and thence to:

(33) 48°16'.25N	123°06'.58W
(34) 48°16'.57N	123°06'.58W
(35) 48°19'.20N	123°00'.35W
(36) 48°19'.00N	123°00'.17W

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(38) 48°23'.75N	122°47'.47W
(39) 48°19'.80N	122°56'.83W

connecting with precautionary area "RA", and thence to:

(40) 48°15'.70N	123°06'.58W
(41) 48°18'.67N	122°59'.57W

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(43) 48°24'.62N	122°48'.68W
(44) 48°20'.85N	122°57'.80W

connecting with precautionary area “RA”, and thence to:

(45) 48°19'.70N	123°00'.53W
(46) 48°17'.15N	123°06'.57W

(d) Connecting with precautionary area “ND”, which is bounded by a line connecting the following positions:

(47) 48°11'.00N	123°06'.58W
(46) 48°17'.15N	123°06'.57W
(48) 48°14'.27N	123°13'.41W
(49) 48°12'.34N	123°18'.01W
(50) 48°12'.72N	123°25'.34W
(51) 48°11'.24N	123°23'.82W
(52) 48°10'.82N	123°25'.44W
(53) 48°09'.42N	123°24'.24W
(54) 48°08'.39N	123°24'.24W

thence along the shoreline to the point of beginning (47).

North-west/south-east approach

(e) A separation zone is bounded by a line connecting the following geographical positions:

(55) 48°27'.79N	123°07'.80W
(56) 48°25'.43N	123°03'.88W
(57) 48°22'.88N	123°00'.82W
(58) 48°20'.93N	122°59'.30W
(59) 48°20'.82N	122°59'.62W
(60) 48°22'.72N	123°01'.12W
(61) 48°25'.32N	123°04'.30W
(62) 48°27'.58N	123°08'.10W

connecting with precautionary area “RA”, and thence to:

(63) 48°18'.83N	122°57'.48W
(64) 48°13'.15N	122°51'.33W
(65) 48°13'.00N	122°51'.62W
(66) 48°18'.70N	122°57'.77W

(f) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(67) 48°28'.15N	123°07'.31W
(68) 48°25'.60N	123°03'.13W
(69) 48°23'.20N	123°00'.20W
(70) 48°21'.00N	122°58'.50W

connecting with precautionary area “RA”, and thence to:

(71) 48°19'.20N	122°57'.03W
(72) 48°13'.35N	122°50'.63W

(g) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(73) 48°27'.43N	123°08'.94W
(74) 48°25'.17N	123°04'.98W
(75) 48°22'.48N	123°01'.73W
(76) 48°20'.47N	123°00'.20W

connecting with precautionary area “RA”, and thence to:

(77) 48°18'.52N	122°58'.50W
(78) 48°12'.63N	122°52'.15W

(h) Connecting with precautionary area “SA”, the waters contained within a circle of radius 2 miles centered at geographical position 48°11'.45N, 122°49'.78W.

North/south approach (between precautionary areas “RB” and “SA”)

(i) A separation zone is bounded by a line connecting the following geographical positions:

(79) 48°24'.15N	122°44'.08W
(80) 48°13'.33N	122°48'.78W
(81) 48°13'.38N	122°49'.15W
(82) 48°24'.17N	122°44'.48W

(j) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(84) 48°24'.08N	122°43'.38W
(85) 48°13'.10N	122°48'.12W

(k) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(87) 48°24'.15N	122°45'.27W
(88) 48°13'.43N	122°49'.90W

East/west approach (between precautionary areas “ND” and “SA”)

(l) A separation zone is bounded by a line connecting the following geographical positions:

(89) 48°11'.50N	122°52'.73W
(90) 48°11'.73N	122°52'.70W
(91) 48°12'.48N	123°06'.58W
(92) 48°12'.23N	123°06'.58W

(m) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(93) 48°12'.22N	122°52'.52W
(94) 48°12'.98N	123°06'.58W

(n) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(95) 48°11'.73N	123°06'.58W
(96) 48°10'.98N	122°52'.65W

Part III

Puget Sound

The traffic separation scheme in Puget Sound consists of a series of traffic lanes with separation zones connecting with precautionary areas.

(a) A separation zone is bounded by a line connecting the following geographical positions:

(97) 48°11'.08N	122°46'.88W
(98) 48°06'.85N	122°39'.52W
(99) 48°02'.48N	122°38'.17W
(100) 48°02'.43N	122°38'.52W
(101) 48°06'.72N	122°39'.83W
(102) 48°10'.82N	122°46'.98W

connecting with precautionary area "SC", the waters contained within a circle of radius 0.62 miles centered at 48°01'.85N, 122°38'.15W, and thence to:

(103) 48°01'.40N	122°37'.57W
(104) 47°57'.95N	122°34'.67W
(105) 47°55'.85N	122°30'.22W
(106) 47°55'.67N	122°30'.40W
(107) 47°57'.78N	122°34'.92W
(108) 48°01'.28N	122°37'.87W

connecting with precautionary area "SE", the waters contained within a circle of radius 0.62 miles centered at 47°55'.40N, 122°29'.55W, and thence to:

(109) 47°54'.85N	122°29'.18W
(110) 47°46'.52N	122°26'.30W
(111) 47°46'.47N	122°26'.62W
(112) 47°54'.80N	122°29'.53W

connecting with precautionary area "SF", the waters contained within a circle of radius 0.62 miles centered at 47°45'.90N, 122°26'.25W, and thence to:

(113) 47°45'.20N	122°26'.25W
(114) 47°40'.27N	122°27'.55W
(115) 47°40'.30N	122°27'.88W
(116) 47°45'.33N	122°26'.60W

connecting with precautionary area "SG", the waters contained within a circle of radius 0.62 miles centered at 47°39'.68N, 122°27'.87W, and thence to:

(117) 47°39'.12N	122°27'.62W
(118) 47°35'.18N	122°27'.08W
(119) 47°35'.17N	122°27'.35W
(120) 47°39'.08N	122°27'.97W

connecting with precautionary area "T", the waters contained within a circle of radius 0.62 miles centered at 47°34'.55N, 122°27'.07W, and thence to:

(121) 47°34'.02N	122°26'.70W
(122) 47°26'.92N	122°24'.10W
(123) 47°23'.07N	122°20'.98W
(124) 47°19'.78N	122°26'.58W
(125) 47°19'.98N	122°26'.83W
(126) 47°23'.15N	122°21'.45W
(127) 47°26'.85N	122°24'.45W
(128) 47°33'.95N	122°27'.03W

connecting with precautionary area "TC", the waters contained within a circle of radius 0.62 miles centered at 47°19'.48N, 122°27'.38W.

(b) A traffic lane for northbound traffic is established between the separation zone and a line connecting the following geographical positions:

(129) 48°11'.72N	122°46'.83W
(130) 48°07'.13N	122°38'.83W
(131) 48°02'.10N	122°37'.32W
(132) 47°58'.23N	122°34'.07W
(133) 47°55'.83N	122°28'.80W
(134) 47°45'.92N	122°25'.33W
(135) 47°39'.68N	122°26'.95W
(136) 47°34'.65N	122°26'.18W
(137) 47°27'.13N	122°23'.40W
(138) 47°23'.33N	122°20'.37W
(139) 47°22'.67N	122°20'.53W
(140) 47°19'.07N	122°26'.75W

(c) A traffic lane for southbound traffic is established between the separation zone and a line connecting the following geographical positions:

(141) 48°10'.15N	122°47'.58W
(142) 48°09'.35N	122°45'.55W
(143) 48°06'.45N	122°40'.52W
(144) 48°01'.65N	122°39'.03W
(145) 47°57'.47N	122°35'.45W
(146) 47°55'.07N	122°30'.35W
(147) 47°45'.90N	122°27'.18W
(148) 47°39'.70N	122°28'.78W
(149) 47°34'.47N	122°27'.98W
(150) 47°26'.63N	122°25'.12W
(151) 47°23'.25N	122°22'.42W
(152) 47°20'.00N	122°27'.90W

IN HARO STRAIT, BOUNDARY PASS, AND THE STRAIT OF GEORGIA

(Reference charts: United States 18421, 2000 edition; 18423, 2001 edition; 18431, 1996 edition; 18432, 1992 edition; 18433, 2000 edition; Canadian Hydrographic Service 3441, 1996 edition.
Note: The charts are based on North America 1983 Datum.)

Description of the traffic separation scheme

The traffic separation scheme “In Haro Strait, Boundary Pass, and In the Strait of Georgia” consists of a series of traffic separation schemes, two-way traffic lanes, and precautionary areas broken into two geographic designations as follows:

Part I: Haro Strait and Boundary Pass

Part II: Strait of Georgia

Part I

Haro Strait and Boundary Pass

(a) A precautionary area “V”, is established bounded by a line connecting the following geographical points:

(1) 48°21'.83N	123°25'.56W
(2) 48°21'.13N	123°24'.84W
(3) 48°20'.95N	123°24'.24W
(4) 48°20'.93N	123°23'.22W
(5) 48°21'.67N	123°21'.12W
(6) 48°22'.12N	123°21'.12W
(7) 48°22'.37N	123°21'.12W
(8) 48°22'.85N	123°21'.24W
(9) 48°23'.71N	123°23'.88W

thence back to point of origin (1).

(b) Connecting with precautionary area “V”, a separation zone is established bounded by a line connecting the following geographical positions:

(7) 48°22'.37N	123°21'.12W
(10) 48°22'.39N	123°18'.36W
(11) 48°23'.90N	123°12'.78W
(12) 48°23'.63N	123°12'.78W
(13) 48°22'.15N	123°18'.30W
(6) 48°22'.12N	123°21'.12W

(c) A traffic lane for eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(5) 48°21'.67N	123°21'.12W
(14) 48°21'.73N	123°18'.36W
(15) 48°23'.84N	123°10'.08W

(d) A traffic lane for westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(8) 48°22'.85N	123°21'.24W
(16) 48°22'.87N	123°18'.42W
(17) 48°24'.28N	123°13'.02W
(18) 48°24'.78N	123°12'.42W

(e) A separation zone is established bounded by a line connecting the following geographical positions:

(19) 48°24'.72N	123°11'.40W
(20) 48°28'.81N	123°11'.46W
(21) 48°28'.37N	123°10'.68W
(22) 48°27'.17N	123°10'.26W
(23) 48°24'.95N	123°10'.68W

(f) A traffic lane for north-bound traffic is established between the separation zone and a line connecting the following geographical positions:

(15) 48°23'.84N	123°10'.08W
(24) 48°27'.43N	123°08'.94W

(g) A traffic lane for south-bound traffic is established between the separation zone and a line connecting the following geographical positions:

(25) 48°28'.79N	123°12'.77W
(18) 48°24'.78N	123°12'.42W

(h) A precautionary area "HS", is established bounded by a line connecting the following geographical points:

(25) 48°28'.79N	123°12'.77W
(26) 48°31'.73N	123°13'.02W
(27) 48°31'.03N	123°11'.22W
(28) 48°29'.45N	123°09'.42W
(29) 48°28'.15N	123°07'.31W
(30) 48°27'.79N	123°07'.80W
(31) 48°27'.58N	123°08'.10W
(24) 48°27'.43N	123°08'.94W
(21) 48°28'.37N	123°10'.68W
(20) 48°28'.81N	123°11'.46W

thence back to point of origin (25).

(i) A two-way route is established between the following geographical positions:

(27) 48°31'.03N	123°11'.22W
(32) 48°35'.18N	123°12'.78W
(33) 48°38'.37N	123°12'.36W
(34) 48°39'.20N	123°13'.09W
(35) 48°39'.41N	123°16'.06W
(26) 48°31'.73N	123°13'.02W

(j) A precautionary area "TP", is established bounded to the north by the arc of a circle of radius 2.1 miles centered at geographical position 48°41.3N, 123°14.2W (Turn Point Light) and connecting the following points:

(36) 48°43'.04N	123°16'.06W
(37) 48°43'.15N	123°12'.75W
(42) 48°42'.23N	123°11'.35W
(43) 48°40'.93N	123°11'.01W

and bounded to the south by the arc of a circle of radius 2.1 miles centered at geographical position 48°41.3N, 123°14.2W (Turn Point Light) and connecting the following points:

(44) 48°39'.76N	123°11'.84W
(34) 48°39'.20N	123°13'.09W
(35) 48°39'.41N	123°16'.06W

thence a direct line connecting the following points:

(35) 48°39'.41N	123°16'.06W
(36) 48°43'.04N	123°16'.06W

(k) A two-way route is established between the following geographical positions:

(37) 48°43'.15N	123°12'.75W
(38) 48°46'.43N	123°03'.12W
(39) 48°48'.19N	123°00'.84W
(40) 48°47'.78N	122°59'.12W
(41) 48°45'.51N	123°01'.82W
(42) 48°42'.23N	123°11'.35W

Part II
Strait of Georgia

(a) A precautionary area "GS", is established bounded by a line connecting the following geographical points:

(45) 48°52'.30N	123°07'.44W
(46) 48°54'.81N	123°03'.66W
(47) 48°49'.49N	122°54'.24W
(48) 48°47'.93N	122°57'.12W
(40) 48°47'.78N	122°59'.12W
(39) 48°48'.19N	123°00'.84W

thence to the point of origin (45).

(b) A separation zone is established bounded by a line connecting the following geographical positions:

(49) 48°53'.89N	123°05'.04W
(50) 48°56'.82N	123°10'.08W
(51) 48°56'.30N	123°10'.80W
(52) 48°53'.39N	123°05'.70W

(c) A traffic lane for north-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(46) 48°54'.81N	123°03'.66W
(54) 48°57'.68N	123°08'.76W

(d) A traffic lane for south-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(53) 48°55'.34N	123°12'.30W
(45) 48°52'.30N	123°07'.44W

(e) A precautionary area "PR", is established bounded by a line connecting the following geographical points:

(53) 48°55'.34N	123°12'.30W
(54) 48°57'.68N	123°08'.76W
(55) 49°00'.37N	123°13'.32W
(56) 48°58'.18N	123°16'.74W

(f) A separation zone is established bounded by a line connecting the following geographical positions:

(57) 48°59'.53N	123°14'.66W
(58) 49°03'.80N	123°21'.24W
(59) 49°03'.14N	123°22'.26W
(60) 48°58'.90N	123°15'.63W

(g) A traffic lane for north-westbound traffic is established between the separation zone and a line connecting the following geographical positions:

(55) 49°00'.37N	123°13'.32W
(62) 49°04'.52N	123°20'.04W

(h) A traffic lane for south-eastbound traffic is established between the separation zone and a line connecting the following geographical positions:

(61) 49°02'.51N	123°23'.76W
(56) 48°58'.18N	123°16'.74W

Description of the amended traffic separation scheme in the Gulf of Finland

Amendments to the traffic separation schemes previously adopted by IMO

(Reference map (INT 1214). Geodetic datum of the year 1942 (Pulkovo). For obtaining position in WGS datum such position should be moved 0'.14 (8".3) westward).

Traffic separation scheme near Gogland Island

The traffic separation scheme consists of two parts:

Part I consists of two traffic lanes separated by a zone with a centre line connecting the following geographical positions:

- (1) 59°59'.00N 026°57'.40E
- (2) 59°58'.52N 027°03'.10E
- (3) 59°59'.47N 027°06'.30E.

The traffic separation zone is 0.5 mile wide.

The traffic lanes on the both sides of the traffic separation zone are 1 mile wide.

The direction of navigation will be 99°-279° and 59°.3-239°.3.

Part II consists of two traffic lanes separated by a line connecting the following geographical positions:

- (1) 59°59'.47N 027°06'.30E
- (2) 60°07'.55N 027°32'.80E.

The traffic lanes on the both sides of the traffic separation line are 1.25 miles wide.

The direction of navigation will be 59°.3-239°.3.

Traffic separation scheme near Sommers Island

The traffic separation scheme consists of four parts:

Part I consists of a roundabout around the separation zone 0.5 mile in diameter centred on the geographical position 60°11'.50N 027°46'.20E. The roundabout lane is 1 mile wide.

Part II consists of two traffic lanes separated by a zone with a centre line connecting the following geographical positions:

- (1) 60°07'.55N 027°32'.80E
- (2) 60°10'.77N 027°43'.62E.

The traffic separation zone is 0.5 mile wide.

The traffic lanes on both sides of the traffic separation zone are 1 mile wide.

The direction of navigation will be 59°.3-239°.3.

Part III consists of two traffic lanes separated by a line connecting the following geographical positions:

- (1) 60°11'.15N 027°49'.05E
- (2) 60°07'.70N 028°16'.10E.

The traffic lanes on both sides of the traffic separation line are 1 mile wide.

The direction of navigation will be 104°.3-284°.3.

Part IV consists of two traffic lanes separated by a line connecting the following geographical positions:

- (1) 60°12'.70N 027°47'.90E
- (2) 60°24'.54N 028°05'.05E.

The traffic lanes on both sides of the traffic separation line are 0.5 mile wide.
The direction of navigation will be 35°.7-215°.7.

Establishing of deep water route inside the borders of the traffic separation scheme from the Gogland Island to the Rodsher Island

The route lane is 1000 m wide with established direction of traffic flow and is intended for the passage of ships with a draught up to 15 m.

¹	Deep water route centre line connecting positions (Pulkovo-42)		Direction, degrees	Distance, miles	Lane width, cables
1	60°01'.55N 027°11'.20E	59°59'.12N 027°03'.05E	239.3	4.8	5.4
2	59°59'.12N 027°03'.05E	59°59'.90N 026°53'.57E	279	4.8	5.4
3	59°59'.90N 026°53'.57E	60°03'.25N 026°40'.00E	296.5	7.6	5.4
4	60°03'.25N 026°40'.00E	60°02'.06N 026°30'.30E	255.5	5	5.4

ANNEX 7

ROUTEING MEASURES OTHER THAN TRAFFIC SEPARATION SCHEMES

TORTUGAS ECOLOGICAL RESERVE AND TORTUGAS BANK

(Reference Charts: United States 11434, 1998 edition.

Note: These charts are based on North American 1983 Datum.)

Description of the mandatory No Anchoring Areas**Northernmost Area of the Tortugas Ecological Reserve**

To avoid destruction of this unique, fragile and pristine coral reef ecosystem from anchoring, all ships shall avoid anchoring in the area bounded by a line connecting the following geographical positions which is designated as a mandatory no anchoring area:

(1)	24°46'.00N	083°06'.00W
(2)	24°46'.00N	082°54'.00W
(3)	24°45'.80N	082°48'.00W
(4)	24°43'.53N	082°48'.00W
(5)	24°43'.53N	082°52'.00W
(6)	24°43'.00N	082°54'.00W
(7)	24°39'.00N	082°58'.00W
(8)	24°39'.00N	083°06'.00W
(9)	24°46'.00N	083°06'.00W

Southernmost Area of the Tortugas Ecological Reserve

To avoid destruction of this unique, fragile and pristine coral reef ecosystem from anchoring, all ships shall avoid anchoring in the area bounded by a line connecting the following geographical positions which is designated as a mandatory no anchoring area:

(10)	24°33'.00N	083°09'.00W
(11)	24°33'.00N	083°05'.00W
(12)	24°18'.00N	083°05'.00W
(13)	24°18'.00N	083°09'.00W
(14)	24°33'.00N	083°09'.00W

Tortugas Bank Outside of the Tortugas Ecological Reserve

To avoid the destruction of this unique and fragile coral reef ecosystem from anchoring by large ships, ships 50 meters or more in length shall avoid anchoring in the area bounded by a line connecting the following geographical positions which is designated as a mandatory no anchoring area:

(15)	24°32'.00N	083°00'.05W
(16)	24°37'.00N	083°06'.00W
(17)	24°39'.00N	083°06'.00W
(18)	24°39'.00N	083°00'.05W
(19)	24°32'.00N	083°00'.05W

OFF THE FLORIDA COAST

(Reference charts: United States 11450, 1998 edition; 11460, 1999 edition; 11462, 1998 edition; 11463, 1997 edition. Note: These charts are based on North American 1983 Datum.)

Description of the northernmost area to be avoided

In order to avoid risk of pollution and damage to the environment of these sensitive areas, all ships carrying cargoes of oil and hazardous materials and all other ships greater than 50 meters in length should avoid the following area:

(a) In the vicinity of the Florida Keys

The area bounded by a line connecting the following geographical positions is designated as an area to be avoided:

(1)	25°45'.00N	080°06'.10W
(2)	25°38'.70N	080°02'.70W
(3)	25°22'.00N	080°03'.00W
(4)	25°06'.38N	080°10'.48W
(5)	24°56'.37N	080°19'.26W
(6)	24°37'.90N	080°47'.30W
(7)	24°29'.20N	081°17'.30W
(8)	24°22'.30N	081°43'.17W
(9)	24°28'.00N	081°43'.17W
(10)	24°28'.70N	081°43'.50W
(11)	24°29'.80N	081°43'.17W
(12)	24°33'.10N	081°35'.15W
(13)	24°33'.60N	081°26'.00W
(14)	24°38'.20N	081°07'.00W
(15)	24°43'.20N	080°53'.20W
(16)	24°46'.10N	080°46'.15W
(17)	24°51'.10N	080°37'.10W
(18)	24°57'.50N	080°27'.50W
(19)	25°09'.90N	080°16'.20W
(20)	25°24'.00N	080°09'.10W
(21)	25°31'.50N	080°07'.00W
(22)	25°39'.70N	080°06'.85W
(23)	25°45'.00N	080°06'.10W

MALPELO ISLAND

(Reference charts: INT 6105 “Gulf of Cupica to Bay of Buenaventura” and INT 6000 “West coast of Colombia”).

Description of area to be avoided around the Malpelo Island

With a view to avoiding the risk of serious damage to important systems, to the environment, and to the economy of the area, all fishing vessels and all other ships in excess of 500 gross tonnage should avoid the area bounded by lines connecting the following geographical positions:

- (1) 04°04'80" N 081°43'30" W
- (2) 04°04'80" N 081°28'12" W
- (3) 03°52'15" N 081°28'12" W
- (4) 03°52'15" N 081°43'30" W

AMENDMENT OF THE AREA TO BE AVOIDED OFF THE WASHINGTON COAST

(Reference charts: United States 18500, 1999 edition, and 18480, 1999 edition.

Note: These charts are based on North American 1983 Datum.)

Description of the area to be avoided

In order to reduce the risk of a marine casualty and resulting pollution and damage to the environment of the Olympic Coast National Marine Sanctuary, all ships and barges* carrying cargoes of oil or hazardous materials, and all ships 1,600 gross tons and above solely in transit should avoid the area bounded by a line connecting the following geographical positions:

- | | | |
|-----|------------|-------------|
| (1) | 48°23'.30N | 124°38'.20W |
| (2) | 48°24'.17N | 124°38'.20W |
| (3) | 48°26'.15N | 124°44'.65W |
| (4) | 48°26'.15N | 124°52'.80W |
| (5) | 48°24'.67N | 124°55'.71W |
| (6) | 47°51'.70N | 125°15'.50W |
| (7) | 47°07'.70N | 124°47'.50W |
| (8) | 47°07'.70N | 124°11'.00W |

RECOMMENDED TWO-WAY ROUTE IN THE STRAIT OF JUAN DE FUCA

(Reference charts: United States 18400, 2000 edition; 18460, 1998 edition; 18465, 1995 edition; 18480, 1999 edition.

Note: These charts are based on North American 1983 Datum.)

Eastbound Route

1 Slower moving traffic, such as tugs and barges and small fishing vessels, transiting eastbound should follow the route established south of the traffic separation scheme "In the Strait of Juan de Fuca" and north of the line created by the following geographical positions:

- | | | |
|-----|------------|-------------|
| (1) | 48°27'.14N | 124°44'.36W |
| (2) | 48°11'.90N | 123°55'.57W |
| (3) | 48°11'.94N | 123°34'.00W |

* This ATBA does not apply to any warship, naval auxiliary, barge (whether towed by a government or commercial tug), or other ship owned or operated by a Contracting Government and used, for the time being, only on government non-commercial service.

Westbound Route

2 Slower moving traffic, such as tugs and barges and small fishing vessels, transiting westbound should follow the route established south of the line created by the following geographical positions:

(1) 48°27'.14N	124°44'.36W
(2) 48°11'.90N	123°55'.57W
(3) 48°11'.94N	123°34'.00W

PRECAUTIONARY AREA IN THE REGION OF THE GRAND BANKS OF NEWFOUNDLAND

(Reference charts: CHS 4001/INT404, 1995 edition and CHS 4000, 1984 edition.

Note: These charts are based on North American 1983 Datum and North American 1927 Datum respectively.)

Description of the Precautionary Area

In order to reduce the risk of a marine casualty and resulting pollution and damage to the environment, all ships not involved in the oil related activities being conducted within the area, should navigate with particular caution in the area having a 10 nm radius centered on 46°28'.53N and 048°28'.86W. Ship movement in the area is monitored on a 24-hour basis. Any ship planning to transit the precautionary area is advised to contact the Terra Nova Floating Production Storage and Offloading Vessel (FPSO) on VHF channel 16 and to comply with the instructions given while transiting the area.

AREAS TO BE AVOIDED IN THE REGION OF THE SHETLAND ISLANDS

Amend the notes to the descriptions of the areas to be avoided, to read as follows:

‘To avoid the risk of pollution and severe damage to the environment and economy of Shetland, all vessels over 5,000 gross tonnage carrying, or capable of carrying oil or other liquid hazardous cargoes in bulk should avoid the area bounded by lines connecting the following geographical positions:’

ANNEX 8

**RESOLUTION MSC.126(75)
(adopted on 20 May 2002)**

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), as amended by resolution MSC.111(73),

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

1. ADOPTS, in accordance with SOLAS regulation V/8-1, the mandatory ship reporting system in Greenland waters, as described in the Annex to the present resolution;
2. DECIDES that the said mandatory ship reporting system will enter into force at 0000 hours UTC on 1 December 2002;
3. REQUESTS the Secretary-General to bring this resolution and its Annex to the attention of Member Governments and Contracting Governments to the SOLAS Convention.

ANNEX

DESCRIPTION OF THE MANDATORY SHIP REPORTING SYSTEMS IN GREENLAND WATERS

Two systems are established, one – named GREENPOS – for ships on voyage to and from Greenland ports and places of call and one – named COASTAL CONTROL (KYSTKONTROL) – for ships in coastal trade between Greenland ports and Greenland places of call.

1 CATEGORIES OF SHIPS REQUIRED TO PARTICIPATE IN THE SYSTEMS

1.1 Ships required to participate in the reporting system GREENPOS:

All ships, on voyage to or from Greenland ports and places of call.

1.2 Ships required to participate in the reporting system COASTAL CONTROL:

All ships of 20 gross tonnage and more, and fishing vessels, on voyage between Greenland ports and places of call.

2 GEOGRAPHICAL COVERAGE OF THE SYSTEM AND THE NUMBER AND EDITION OF THE REFERENCE CHART USED FOR THE DELINEATION OF THE SYSTEM

2.1 The reporting system GREENPOS covers the area within the Continental Shelf or Exclusive Economic Zone off the coast of Greenland.

2.2 The reference charts are Danish charts Nos. 1000 (Datum Qornoq 1927), 2000 and 3000 (Datum unknown).

3 FORMAT, CONTENT OF REPORTS, TIMES AND GEOGRAPHICAL POSITIONS FOR SUBMITTING REPORTS, AUTHORITY TO WHOM REPORTS SHOULD BE SENT AND AVAILABLE SERVICES

3.1 Format

3.1.1 The GREENPOS reports shall be sent to Island Commander Greenland/MRCC Groennedal and shall be drafted in accordance with the format shown in Annex 1, Appendix 1.

3.1.2 The COASTAL CONTROL reports shall be sent to the relevant coast radio station and shall be drafted in accordance with the format shown in Annex 1, Appendix 2.

3.1.3 The information requested from ships is derived from the Standard Reporting Format shown in resolution A.851(20).

3.2 Content

3.2.1 The report required from a ship participating in the two reporting systems contains only information which is essential to achieve the objectives of the systems, i.e.:

- .1 the **ship's name, call sign and position** are needed for establishing the identity of the ship and its initial position (letters A, B, C or D);
- .2 the **ship's course and speed, destination, intended voyage** and information about **deficiencies and weather and ice conditions** are important in order to maintain track of the ship so as to be able to implement search and rescue measures if a report from a ship fails to appear and to be able to service the safe navigation of the ship in the areas where weather and ice conditions can be extremely severe (letters E, F, I, L, Q and S);
- .3 the **number of persons on board** and other relevant **information** are important in relation to the allocation of resources in a search and rescue operation (letter X).

3.3 Position for submitting reports

3.3.1 In the GREENPOS-system, cf. the provisions of Annex 1, Appendix 1, ships shall submit their reports when within the Continental Shelf or Exclusive Economic Zone off the coast of Greenland.

3.3.2 In the COASTAL CONTROL system, cf. the provisions of Annex 1, Appendix 2, ships shall submit their reports when on voyage between Greenland ports and places of call.

3.3.3 Ships coming from an Atlantic voyage may remain in the GREENPOS-system while on voyage between Greenland ports and Greenland places of call, when agreed upon by Island Commander Greenland.

3.4 Authority

3.4.1 Island Commander Greenland/MRCC Groennedal is the responsible authority for the radio reporting systems and for initiating and carrying out maritime search and rescue operations in Greenland waters outside local areas. In local areas the police is the responsible authority.

3.5 Services offered

3.5.1 If a report from a ship participating in the GREENPOS system fails to appear, and it is not possible to establish communication with the ship, or an emergency is reported, MRCC Groennedal is responsible for initiating a search for the ship in accordance with the rules laid down for the search and rescue service, including the involvement of other participating ships known to be in that particular area.

3.5.2 If a report fails to appear from a ship participating in the COASTAL CONTROL system, and it is not possible for the coast radio station to establish communication with the ship, or an emergency is reported, the police of the port of destination shall be informed. It is then the responsibility of the police to initiate a search in accordance with the rules laid down for the search and rescue service, including the involvement of other participating ships known to be in that particular area.

4 INFORMATION TO BE PROVIDED TO THE PARTICIPATING SHIP AND PROCEDURES TO BE FOLLOWED.

4.1 Ships will be provided with information of importance for the safety of navigation in East Greenland waters from the NAVTEX transmitter Reykjavik and in West Greenland ports and places of call from the NAVTEX transmitter on Kook Islands (Igdlutaligssuaq/Telegraføen) at Nuuk/Godthåb.

4.2 If necessary, individual information can be provided to a ship, particularly in relation to special local conditions.

5 COMMUNICATION REQUIRED FOR THE SYSTEM, FREQUENCIES ON WHICH REPORTS SHOULD BE TRANSMITTED AND INFORMATION TO BE REPORTED.

GREENPOS

5.1 For ships entering and navigating in the reporting area, reports shall be addressed to Island Commander Greenland (GLK) via Naval Radio Station Groennedal (OVC), which can be contacted via all modern communication forms including Inmarsat C, tele-fax and e-mail. Island Commander Greenland (GLK), is responsible for monitoring the voyage from the time of receiving the first Sailing Plan (SP) until the time of receiving the Final Report (FR).

5.2 The reports required from a ship entering and navigating in the reporting area shall begin with the word GREENPOS and shall contain a 2-letter abbreviation for identification of the report (Sailing Plan, Position Report, Final Report or Deviation Report). Telegrams so prefixed are dispatched free of charge and as carrying the priority URGENT.

Dependent on the type of report, the following information shall be included as mentioned under paragraph 4 in annex 1, Appendix 1:

System identifier: GREENPOS

- A - Ship's name and call sign;
- B - Date Time Group (UTC);
- C or D - Position;
- E - True course;
- F - Speed;
- I - Destination and ETA (UTC);
- L - Intended voyage;
- Q - Defects and deficiencies;
- S - Weather and ice conditions; and
- X - Total number of persons on board and other relevant information.

COASTAL CONTROL

5.3 For each voyage between Greenland ports and places of call, reports shall be addressed to the coast radio station, which is situated in the same control area as the contemplated destination (Aasiaat radio, Qaqortoq radio or Ammassalik radio) cf. Appendix A. The coast radio stations can be contacted via all modern communication forms including Inmarsat C, tele-fax and e-mail. The coast radio station, is responsible for monitoring the voyage from the time of receiving the Sailing Plan (SP) until the time of receiving the subsequent Final Report (FR).

- 5.4 The reports required from a ship entering and navigating in the reporting area shall begin with the word COASTAL CONTROL and shall contain a 2-letter abbreviation for identification of the report (Sailing Plan, Position Report, Final Report or Deviation Report). Telegrams so prefixed are dispatched free of charge and as carrying the priority URGENT.

Dependent on the type of report, the following information shall be included as mentioned under paragraph 4 in annex 1, Appendix 2:

System identifier: COASTAL CONTROL

- A - Ship's name and call sign;
- B - Date Time Group (LT);
- C or D - Position;
- E - True course;
- F - Speed;
- I - Destination and ETA (LT);
- L - Intended voyage;
- Q - Defects and deficiencies;
- X - Total number of persons on board and other relevant information.

6 RELEVANT RULES AND REGULATIONS IN FORCE IN THE AREA OF THE PROPOSED SYSTEM

6.1 International Regulations for Preventing Collisions at Sea

The International Regulations for Preventing Collisions at Sea, 1972, as amended are applicable in Greenland waters.

7 SHORE-BASED FACILITIES TO SUPPORT OPERATION OF THE SYSTEM

- 7.1 Island Commander Greenland is the shore-based authority which on the basis of GREENPOS reports is in possession of position, route etc. for each ship on voyage to or from Greenland. The coast radio stations are via COASTAL CONTROL reports kept informed about all ships on voyage between Greenland ports or places of call.

- 7.2 Furthermore, information about ships and their characteristics can be obtained from the AMVER system operated by the United States Coast Guard.

- 7.3 The coast radio stations and Naval Radio Station Groennedal, which form part of the coast radio service, will at all times be manned.

8 INFORMATION CONCERNING THE APPLICABLE PROCEDURES IF THE COMMUNICATION FACILITIES OF THE SHORE-BASED AUTHORITY FAIL

- 8.1 The coast radio service is designed with sufficient system redundancy to cope with normal equipment failure.

9 MEASURES TO BE TAKEN IF A SHIP FAILS TO COMPLY WITH THE REQUIREMENTS OF THE SYSTEM

- 9.1 The objective of the system is to enable Island Commander Greenland/MRCC Groennedal to initiate SAR measures as fast and effective as possible, if an emergency is reported or a report from a ship fails to appear, and it is impossible to establish communication with the ship. All means will be used to obtain the full participation of ships required to submit reports. If reports are not submitted and the offending ship can be positively identified, then information will be passed on to the relevant Flag State Authorities for investigation and possible prosecution in accordance with national legislation.

APPENDIX 1

Greenland Ship Reporting System (GREENPOS)

Rules for Drafting of Reports

1 Ships on voyage to and from Greenland ports and places of call shall send reports when within the Continental Shelf or Exclusive Economic Zone off the coast of Greenland. The Reports shall be sent four times a day, between 0000-0030, 0600-0630, 1200-1230, and 1800-1830 UTC.

2 The reports shall be sent directly to Island Commander Greenland (GLK) via Naval Radio Station Groennedal (OVC), which maintains a continuous listening watch on 2182 kHz, or via a coast radio station. Naval Radio Station Groennedal (OVC) and coast radio stations can be contacted via all modern communication forms including Inmarsat C, Tele-fax and E-mail.

3 Each report shall begin with the word GREENPOS and a 2-letter abbreviation for identification of the report. Telegrams so prefixed are dispatched free of charge and as carrying the priority URGENT.

4 The reports shall be drawn up in accordance with the following diagram. Designators, which are not mandatory, can be included if necessary.

Designator	Mandatory for type of report	Information	Text
	All	Code word	"GREENPOS"
	All	Type of report: Sailing Plan Position Report Final Report Deviation Report	One of the following 2-letter identifiers: "SP" (Sailing Plan) "PR" (Position Report) "FR" (Final Report) "DR" (Deviation Report).
A.	All	Ship	Name and call sign (e.g.: AGNETHE NIELSEN/OULH)
B.	All	Date Time Group corresponding to the position under designator C. or D. given in UTC (Co-ordinated Universal Time)	A 6-digit group followed by a Z. The first 2 digits giving date of month, the next 2 digits giving hours and the last 2 digits minutes. The Z indicates that the time is given in UTC (e.g.: 041330Z).
C.	C. or D. for all	Position by latitude and longitude	A 4-digit group giving latitude in degrees and minutes suffixed with N, and a 5-digit group giving longitude in degrees and minutes suffixed with W (e.g.: 5710N 04112W).

D.	C. or D. for all	Position by geographical name of place	Name of place or true bearing (3-digits) and distance in nautical miles (quote the word "distance") from an unambiguous known name of place (e.g.: 165 distance 53 Cape Farewell).
E.	SP, PR	True course	A 3-digit group (e.g.: 083).
F.	SP, PR	Speed in knots	A 2-digit group (e.g.: 14).
I.	SP	Destination and ETA (UTC)	The name of the destination followed by expected time of arrival, expressed as under designator B (e.g.: Nanortalik 181400Z).
L.	SP	Intended voyage	A brief description of the intended route, as estimated by the Master (e.g.: from present position by great circle until 100 n.m. S. of Cape Farewell then along the ice edge to QAQORTOQ).
Q.		Defects and deficiencies	Brief details of defects and deficiencies of significance for the safety of the ship (e.g.: Breakdown on Radar and VHF).
S.	All	Weather- and ice conditions	Brief information about weather at the time of the report and about the ice situation since the last report (e.g.: SW 5, ice edge observed from 6120N03905W).
X.	SP	The total number of persons on board. Other relevant information.	Number of persons on board shall be given. (e.g.: POB 16). Any other information of importance to the safety of own or other ships (e.g.: going before the wind due to heavy icing).

- 5 Sailing Plan ("SP")** to be sent as a first report:
- a. When entering the reporting area
 - b. On last departure from Greenland port
 - c. When a ship – not obliged to report – wishes to be covered by the GREENPOS-system.

Example:

GLK GROENNEDAL
GREENPOS – SP

- A. NONAME/NKFG
- B. 071310Z
- C. 5720N04510W
- E. 330
- F. 15
- I. QAQORTOQ 080200Z
- L. DIRECT IN OPEN WATERS
- S. OVERCAST – SW 5 – NO ICE
- X. POB 16.

- 6** **Position Report (“PR”)** to be sent 4 times a day:
At 0000-0030Z, 0600-0630Z, 1200-1230Z and 1800-1830Z.

Example:

GLK GROENNEDAL
GREENPOS - PR
A. NONAME/NKFG
B. 122310Z
C. 6024N05005W
E. 125
F. 10
S. CLEAR SKY – NW 5 – 1/10 ICE.

- 7** **Final Report (“FR”)** to be sent:
- a. When leaving the reporting area.
 - b. On arrival at Greenland destination.
 - c. When a ship – not obliged to report – wishes to be released from the ship reporting system.

Example:

GLK GROENNEDAL
GREENPOS – FR
A. NONAME/NKFG
B. 131700Z
C. 5705N03840W
S. E 6 – NO ICE.

- 8** **Deviation Report (“DR”)** to be sent:
When the position of the ship is or will be changed considerably compared with the position, at which the ship, based on former reports, is expected to be.

Example:

GLK GROENNEDAL
GREENPOS – DR
A. NONAME/NKFG
B. 130800Z
C. 6005N04952W
L. HEADING TOWARDS ARSUK FIORD IN STEAD OF QAQORTOQ DUE TO ENGINE TROUBLE.

APPENDIX 2

**Greenland Ship Reporting System
 COASTAL CONTROL
 (KYSTKONTROL)**

Rules for Drafting of Reports

1 Ships on voyages between Greenland ports and places of call shall send reports to the coast radio station, which is situated in the same control area as the contemplated destination (Aasiaat radio, Qaqortoq radio or Ammassalik radio) cf. Appendix A. Coast radio stations can be contacted via all modern communication forms including Inmarsat C, tele-fax and e-mail. This coast radio station is responsible for monitoring the ship's voyage from the time of receiving the sailing plan until the time of receiving the subsequent final report.

2 The reports shall be sent to the coast radio station, which is situated in the same control area as the contemplated destination (Aasiaat radio, Qaqortoq radio or Ammassalik radio) cf. Appendix A. Coast radio stations can be contacted via all modern communication forms including Inmarsat C, tele-fax and e-mail.

3 Each report shall begin with the word COASTAL CONTROL followed by a 2-letter abbreviation for identification of the report. Telegrams so prefixed are dispatched free of charge and as carrying the priority URGENT.

4 The reports shall be drawn up in accordance with the following diagram. Designators, which are not mandatory, can be included if necessary.

Designator	Mandatory for type of report	Information	Text
	All	Code word	"COASTAL CONTROL"
	All	Type of report: Sailing Plan Position Report Deviation Report Final Report	One of the following 2-letter identifiers: "SP" (Sailing Plan – on departure) "PR" (Position Report) "DR" (Deviation Report) "FR" (Final Report – on arrival)
A.	All	Ship	Name and call sign (e.g.: AGNETHE NIELSEN/OULH).
B.	All	Date Time Group corresponding to the position under designator C. or D. given in Local Time (LT)	A 6-digit group. The first 2 digits giving date of month, the next 2 digits giving hours and the last 2 digits minutes (e.g.: 041330).

C.	C. or D. for all	Position by latitude and longitude	A 4-digit group giving latitude in degrees and minutes suffixed with N, and a 5-digit group giving longitude in degrees and minutes suffixed with W (e.g.: 5710N 04112W).
D.	C. or D. for all	Position by geographical name of place	Name of place or true bearing (3-digits) and distance in nautical miles (quote the word "distance") from an unambiguous known name of place (e.g.: 165 distance 5 Paamiut).
E.	PR	True course	A 3-digit group (e.g.: 083).
F.	PR	Speed in knots	A 2-digit group (e.g.: 14).
I.	SP	Destination and ETA (LT)	The name of the destination followed by expected time of arrival, expressed as under designator B (e.g.: Nanortalik 181400).
L.	SP	Intended voyage	A brief description of the intended route, as estimated by the Master (e.g.: from present position along the ice edge to QAQORTOQ).
Q.		Defects and deficiencies	Brief details of defects and deficiencies of significance for the safety of the ship (e.g.: Breakdown on Radar and VHF).
X.	SP	The total number of persons on board. Other relevant information.	Number of persons on board shall be given. (e.g.: POB 16). Any other information of importance to the safety of own or other ships (e.g.: going before the wind due to heavy icing).

5 Sailing Plan ("SP") to be sent as a first report by departure:

Example:

Coast Radio Station QAQORTOQ

COASTAL CONTROL – SP

A. NONAME/NKFG

B. 071310

D. NARSSAQ

I. QAQORTOQ 080200

L. DIRECT IN OPEN WATERS

X. POB 16.

6 Position Report ("PR"). If a voyage is of a longer duration than 24 hours and the ship is equipped with radio, a position report shall furthermore be sent at least once every 24 hours to the control station, to which the departure report was addressed.

Example:

Coast Radio Station QAQORTOQ

COASTAL CONTROL – PR

A. NONAME/NKFG

B. 122310

D. OFF ARSUK

E. 310

F. 8

7 Deviation Report (“DR”) to be sent to the control station, to which the departure report was addressed if there are changes from the information given in the departure report. A deviation report shall also be sent, if the previous given time of arrival is overdue with more than one hour.

Example:

Coast Radio Station QAQORTOQ
COASTAL CONTROL – DR

- A. NONAME/NKFG
- B. 130800
- D. ARRIVED IVITTUT AT 1500
- L. AWAITING WEATHER IMPROVEMENT BEFORE CONTINUING TO PAAMIUT. A
NEW SAILING PLAN WILL BE SENT

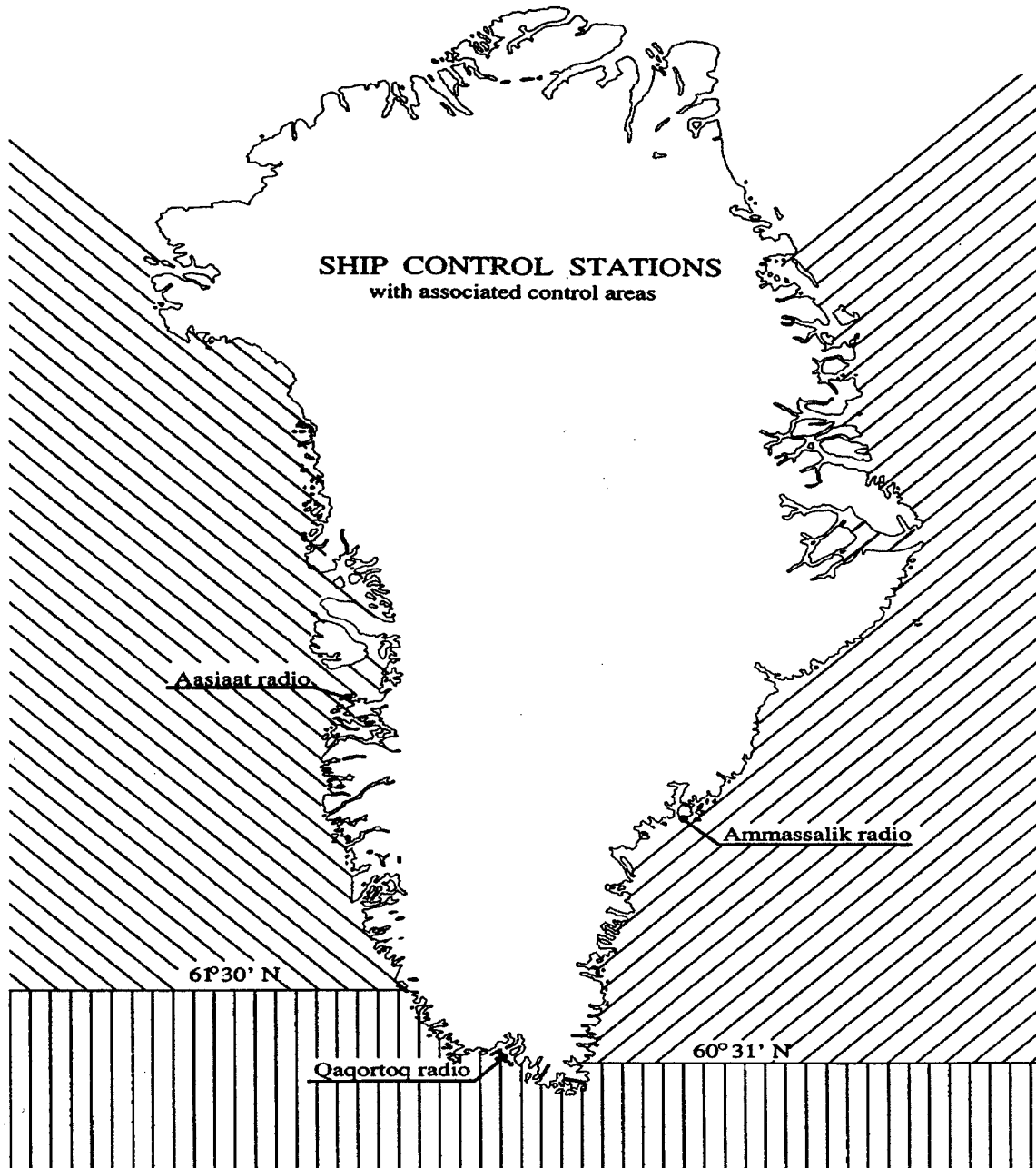
8 Final Report (“FR”) to be sent immediately upon arrival, to the control station to which the departure report was addressed.

Example:

Coast Radio Station QAQORTOQ
COASTAL CONTROL – FR

- A. NONAME/NKFG
- B. 131700
- D. ARRIVED PAMIUT

Appendix A



ANNEX 9

**RESOLUTION MSC.127(75)
(adopted on 20 May 2002)**

AMENDMENTS TO EXISTING 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), as amended by resolution MSC.111(73),

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

1. ADOPTS, in accordance with SOLAS regulation V/8-1, the amendments to the existing mandatory ship reporting system for the waters "Off Ushant", as described in the Annex to the present resolution;
2. DECIDES that the said amendment to the existing mandatory ship reporting system will enter into force at 0000 hours UTC on 1 May 2003;
3. REQUESTS the Secretary-General to bring this resolution and its Annex to the attention of Member Governments and Contracting Governments to the SOLAS Convention.

ANNEX

Mandatory ship reporting system “Off Ushant”

Amend the first sentence of section 2 as follows:

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

“The reporting system covers a circular area 40 miles in radius centred on the Ile d’Ouessant (Stiff radar tower).”

ANNEX 10**DRAFT ASSEMBLY RESOLUTION
WORLD-WIDE RADIONAVIGATION SYSTEM**

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,

RECALLING ALSO resolutions A.666(16) and A.815(19), by which it adopted the Report on the Study of a World-Wide Radionavigation System,

RECOGNIZING the need for a world-wide radionavigation system to provide ships with navigational position-fixing throughout the world,

RECOGNIZING ALSO the need to amend the Report on the Study of a World-Wide Radionavigation System,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its seventy-fifth session,

1. ADOPTS, as the IMO policy for the recognition and acceptance of suitable radionavigation systems intended for international use, the revised Report on the Study of a World-Wide Radionavigation System set out in the Annex to the present resolution;
2. INVITES Governments to keep the Organization informed of the operational development of suitable radionavigation systems conforming to this policy which might be considered by the Organization for use by ships world-wide;
3. INVITES ALSO Governments and organizations providing radionavigation systems to consent to recognition of these systems by IMO;
4. REQUESTS the Maritime Safety Committee to recognize those systems, which conform to the requirements of the Annex to this resolution, and to publish information on such systems;
5. REQUESTS ALSO the Maritime Safety Committee to keep the aforesaid Report under review for adjustment as necessary;
6. REVOKES resolutions A.529(13) and A.815(19).

ANNEX

REVISED REPORT ON THE STUDY OF A WORLD-WIDE RADIONAVIGATION SYSTEM

1 INTRODUCTION

1.1 Studies on a world-wide radionavigation system has been taking place since 1983. These studies have provided a basis on which Chapter V of the 1974 SOLAS Convention has been amended to include a requirement for ships to carry means of receiving transmissions from suitable radionavigation systems throughout their intended voyage.

1.2 The operational requirements for world-wide radionavigation systems are given in the appendix.

1.3 It is not considered feasible for IMO to fund a world-wide radionavigation system. Existing and planned systems which are being provided and operated by Governments or organizations have therefore been studied, in order to ascertain the conditions under which such systems might be recognized or accepted by IMO.

2 PROCEDURES AND RESPONSIBILITIES CONCERNING THE RECOGNITION OF SYSTEMS

2.1 Procedures and functions of IMO

2.1.1 The recognition by IMO of a radionavigation system would mean that the Organization recognizes that the system is capable of providing adequate position information within its coverage area and that the carriage of receiving equipment for use with the system satisfies the relevant requirements of the 1974 SOLAS Convention, as amended.

2.1.2 IMO should not recognize a radionavigation system without the consent of the Government or organization which has provided and is operating the system.

2.1.3 In deciding whether or not to recognize a radionavigation system, IMO should consider whether:

- the Government or organization providing and operating the system has stated formally that the system is operational and available for use by merchant shipping;
- its continued provision is assured;
- it is capable of providing position information within the coverage area declared by the Government or organization operating and providing the system with a performance not less than that given in the appendix;
- adequate arrangements have been made for publication of the characteristics and parameters of the system and of its status, including amendments, as necessary; and
- adequate arrangements have been made to protect the safety of navigation should it be necessary to introduce changes in the characteristics or parameters of the system that could adversely affect the performance of shipborne receiving equipment.

2.1.4 In deciding, in the light of any changes to a recognized system, whether the system should continue to be recognized, the criteria listed in paragraph 2.1.3 should be applied.

2.2 Responsibilities of Governments or organizations

2.2.1 The provision and operation of a radionavigation system is the responsibility of the Governments or organizations concerned.

2.2.2 Governments or organizations willing to have a radionavigation system recognized by IMO should formally notify IMO that the system is operational and available for use by merchant shipping. The Government or organization should also declare the coverage area of the system and provide as much other information as practicable to assist IMO in its consideration of the factors identified in paragraph 2.1.3.

2.2.3 Governments or organizations that have a system recognized by IMO should not allow changes to the operational characteristics of the system under which the system was recognised without notifying IMO (see resolution A.577(14)).

3 SHIPBORNE RECEIVING EQUIPMENT

3.1 To avoid the necessity of carrying more than one set of receiving equipment on a ship, the shipborne receiving equipment should be suitable for operating either with a world-wide radionavigation system, or with radionavigation systems which cover the area in which the ship trades.

3.2 Shipborne receiving equipment should conform to the relevant performance standards not inferior to those adopted by the Organization.

3.3 Radionavigation systems should make it possible for shipborne receiving equipment automatically to select the appropriate stations for determining the ship's position with the required performance.

3.4 Shipborne receiving equipment should be provided with at least one output* from which position information can be supplied in a standard form to other equipment.

* IEC Publication 61162

APPENDIX

OPERATIONAL REQUIREMENTS

1 INTRODUCTION

1.1 The operational requirements for a world-wide radionavigation system should be general in nature and capable of being met by a number of systems. All systems should be capable of being used by an unlimited number of ships.

1.2 The requirements may be met by individual radionavigation systems or by a combination of such systems.

1.3 For ships with operating speeds above 30 knots more stringent requirements may be necessary.

2 NAVIGATION IN THOSE HARBOUR ENTRANCES, HARBOUR APPROACHES AND COASTAL WATERS WITH A HIGH VOLUME OF TRAFFIC AND/OR SIGNIFICANT DEGREE OF RISK*

2.1 Where a radionavigation system is used to assist in the navigation of ships in all such waters, the system, including any augmentation, should provide positional information with an error not greater than 10 m with a probability of 95%.

2.2 Taking into account the radio frequency environment, the coverage of the system should be adequate to provide position-fixing throughout this phase of navigation.

2.3 Update rate of the computed and displayed position data should be greater than once every 10 s. If the computed position data is used for AIS, graphical display or for direct control of the ship, then the update rate should be greater than once every 2 s**.

2.4 Signal availability should exceed 99.8%, calculated over a 2-year period***.

2.5 When the system is available, the service reliability should be $\geq 99.97\%$ over 3 h.

2.6 A warning of system non-availability or discontinuity should be provided to users within 10 s.

* SOLAS regulation V/13 requires each contracting Government to provide, as it deems practical and necessary either individually or in co-operation with other contracting Governments, such aids to navigation as the volume of traffic justifies and the degree of risk requires.

** This applies to the computed and displayed position data, but not to the update rate of correction data, which remains valid for approximately 30 s.

*** Calculated in accordance with guidance contained in IALA Recommendation R-121 on the Performance and Monitoring of DGNSS Services in the Frequency Band 283.5 – 325 KHz.

3 NAVIGATION IN THOSE HARBOUR ENTRANCES, HARBOUR APPROACHES AND COASTAL WATERS WITH A LOW VOLUME OF TRAFFIC AND/OR A LESS SIGNIFICANT DEGREE OF RISK*

3.1 Where a radionavigation system is used to assist in the navigation of ships in such waters the system, including any augmentation, should provide positional information with an error not greater than 10m with a probability of 95%.

3.2 Taking into account the radio frequency environment, the coverage of the system should be adequate to provide position-fixing throughout this phase of navigation.

3.3 Update rate of the computed and displayed position data should be greater than once every 10s. If the computed position data is used for AIS, graphical display or for direct control of the ship, then the update rate should be greater than once every 2s.**

3.4 Signal availability should exceed 99.5%, calculated over a 2-year period.***

3.5 When the system is available, the service continuity should be $\geq 99.85\%$ over 3 h.

3.6 A warning of system non-availability or discontinuity should be provided to users within 10 s.

4 NAVIGATION IN OCEAN WATERS

4.1 Where a radionavigation system is used to assist in the navigation of ships in ocean waters, the system should provide positional information with an error not greater than 100 m with a probability of 95%. This degree of accuracy is suitable for purposes of general navigation and provision of position information in the GMDSS.

4.2 In view of the fact that merchant fleets operate world-wide, the information provided by a radionavigation system must be suitable for use for general navigation by ships engaged on international voyages in any ocean waters.

4.3 Taking into account the radio frequency environment, the coverage of the system should be adequate to provide position-fixing throughout this phase of navigation.

4.4 Update rate of the computed and displayed position data should be greater than once every 10 s. If the computed position data is used for AIS, graphical display or for direct control of the ship, then the update rate should be greater than once every 2 s.

* SOLAS regulation V/13 requires each contracting Government to provide, as it deems practical and necessary either individually or in co-operation with other contracting Governments, such aids to navigation as the volume of traffic justifies and the degree of risk requires.

** This applies to the computed and displayed position data, but not to the update rate of correction data, which remains valid for approximately 30 s.

*** Calculated in accordance with guidance contained in IALA Recommendation R-121 on the Performance and Monitoring of DGNSS Services in the Frequency Band 283.5-325 KHz.

4.5 Signal availability should exceed 99.8% calculated over a 30-day period.

4.6 A warning of system non-availability or discontinuity should be provided to users as soon as practicable by Maritime Safety Information (MSI) systems.

ANNEX 11

**RESOLUTION MSC.128(75)
(adopted on 20 May 2002)**

**PERFORMANCE STANDARDS FOR A BRIDGE NAVIGATIONAL
WATCH ALARM SYSTEM (BNWAS)**

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.886(21), by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto shall be performed by the Maritime Safety Committee and/or the Marine Environment Protection Committee, as appropriate, on behalf of the Organization,

RECOGNIZING that, many operational bridge-related marine accidents could be averted if an effective and operational bridge navigational watch alarm system (BNWAS) was fitted to vessels,

RECOGNIZING FURTHER that, by the use of a Bridge Navigational Watch Alarm System (BNWAS) warnings will be given in case of the incapacity of the watchkeeping officer due to accident, sickness or in the event of a security breach, e.g. piracy and/or hijacking,

NOTING that the installation of such equipment is a relatively low-cost and an effective means of avoiding operational navigational accidents,

RECOGNIZING the need to prepare appropriate performance standards for BNWASs,

HAVING CONSIDERED the recommendation on the performance standards for BNWASs made by the Sub-Committee on Safety of Navigation at its forty-seventh session,

1. ADOPTS the Recommendation on Performance Standards for a Bridge Navigational Watch Alarm System, set out in the Annex to the present resolution;
2. RECOMMENDS Governments to ensure that BNWASs installed on or after 1 July 2003, conform to performance standards not inferior to those specified in the Annex to the present resolution.

ANNEX

RECOMMENDATION ON PERFORMANCE STANDARDS FOR A BRIDGE NAVIGATIONAL WATCH ALARM SYSTEM (BNWAS)

1 SCOPE

The purpose of a bridge navigational watch alarm system (BNWAS) is to monitor bridge activity and detect operator disability which could lead to marine accidents. The system monitors the awareness of the Officer of the Watch (OOW) and automatically alerts the Master or another qualified OOW if for any reason the OOW becomes incapable of performing the OOW's duties. This purpose is achieved by a series of indications and alarms to alert first the OOW and, if he is not responding, then to alert the Master or another qualified OOW. Additionally, the BNWAS may provide the OOW with a means of calling for immediate assistance if required. The BNWAS should be operational whenever the ship's heading or track control system is engaged, unless inhibited by the Master.

2 REFERENCES

- IMO resolution A.830(19) Code on alarms and indicators
- IMO MSC/Circ.982 Guidelines on Ergonomic Criteria for Bridge Equipment and Layout
- IMO resolution A.694(17) General Requirements¹ for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids

3 DEFINITIONS

Bridge – Wheelhouse and bridge wings

4 OPERATIONAL REQUIREMENTS

4.1 Functionality

4.1.1 Operational modes

4.1.1.1 The BNWAS should incorporate the following operational modes:

- Automatic (Automatically brought into operation whenever the ship's heading or track control system is activated and inhibited when this system is not activated)
- Manual ON (In operation constantly)
- Manual OFF (Does not operate under any circumstances)

¹ IEC Publication 60945

4.1.2 Operational sequence of indications and alarms

4.1.2.1 Once operational, the alarm system should remain dormant for a period of between 3 and 12 min (Td).

4.1.2.2 At the end of this dormant period, the alarm system should initiate a visual indication on the bridge.

4.1.2.3 If not reset, the BNWAS should additionally sound a first stage audible alarm on the bridge 15 s after the visual indication is initiated.

4.1.2.4 If not reset, the BNWAS should additionally sound a second stage remote audible alarm in the back-up officer's and/or Master's location 15 s after the first stage audible alarm is initiated.

4.1.2.5 If not reset, the BNWAS should additionally sound a third stage remote audible alarm at the locations of further crew members capable of taking corrective actions 90 s after the second stage remote audible alarm is initiated.

4.1.2.6 In vessels other than passenger vessels, the second or third stage remote audible alarms may sound in all the above locations at the same time. If the second stage audible alarm is sounded in this way, the third stage alarm may be omitted.

4.1.2.7 In larger vessels, the delay between the second and third stage alarms may be set to a longer value on installation, up to a maximum of 3 min, to allow sufficient time for the back-up officer and/or Master to reach the bridge.

4.1.3 Reset function

4.1.3.1 It should not be possible to initiate the reset function or cancel any audible alarm from any device, equipment or system not physically located in areas of the bridge providing proper look out.

4.1.3.2 The reset function should, by a single operator action, cancel the visual indication and all audible alarms and initiate a further dormant period. If the reset function is activated before the end of the dormant period, the period should be re-initiated to run for its full duration from the time of the reset.

4.1.3.3 To initiate the reset function, an input representing a single operator action by the OOW is required. This input may be generated by reset devices forming an integral part of the BNWAS or by external inputs from other equipment capable of registering physical activity and mental alertness of the OOW.

4.1.3.4 A continuous activation of any reset device should not prolong the dormant period or cause a suppression of the sequence of indications and alarms.

4.1.4 Emergency call facility

Means may be provided on the bridge to immediately activate the second, and subsequently third, stage remote audible alarms by means of an “Emergency Call” push button or similar.

4.2 Accuracy

The alarm system should be capable of achieving the timings stated in section 4.1.2 with an accuracy of 5% or 5 s, whichever is less, under all environmental conditions.

4.3 Security

The means of selecting the Operational Mode and the duration of the Dormant Period (Td) should be security protected so that access to these controls should be restricted to the Master only.

4.4 Malfunctions, alarms and indications

4.4.1 Malfunction

If a malfunction of, or power supply failure to, the BNWAS is detected, this should be indicated. Means shall be provided to allow the repeat of this indication on a central alarm panel if fitted.

5 ERGONOMIC CRITERIA

5.1 Operational controls

5.1.1 A protected means of selecting the operational mode of the BNWAS.

5.1.2 A protected means of selecting the duration of the dormant period of the BNWAS.

5.1.3 A means of activating the “Emergency Call” function if this facility is incorporated within the BNWAS.

5.1.4 Reset facilities

Means of activating the reset function should only be available in positions on the bridge giving proper look out and preferably adjacent to visual indications. Means of activating the reset function should be easily accessible from the conning position, the workstation for navigating and manoeuvring, the workstation for monitoring and the bridge wings.

5.2 Presentation of information

5.2.1 Operational mode

The operational mode of the equipment should be indicated to the OOW.

5.2.2 Visual indications

The visual indication initiated at the end of the dormant period should take the form of a flashing indication. Flashing indications should be visible from all operational positions on the bridge where the OOW may reasonably be expected to be stationed. The colour of the indication(s) should be chosen so as not to impair night vision and dimming facilities (although not to extinction) should be incorporated.

5.2.3 First stage bridge audible alarm

The first stage audible alarm which sounds on the bridge at the end of the visual indication period should have its own characteristic tone or modulation intended to alert, but not to startle, the OOW. This alarm should be audible from all operational positions on the bridge where the OOW may reasonably be expected to be stationed. This function may be engineered using one or more sounding devices. Tone/modulation characteristics and volume level should be selectable during commissioning of the system.

5.2.4 Second and third stage remote audible alarm

The remote audible alarm which sounds in the locations of the Master, officers and further crew members capable of taking corrective action at the end of the bridge audible alarm period should be easily identifiable by its sound and should indicate urgency. The volume of this alarm should be sufficient for it to be heard throughout the locations above and to wake sleeping persons.²

6 DESIGN AND INSTALLATION

6.1 General

The equipment should comply with IMO resolutions A.694(17), A.813(19), their associated international standards³ and MSC/Circ.982 regarding Guidelines for Ergonomic Criteria for Bridge Equipment and Layout.

6.2 Specific requirements

6.2.1 System physical integrity

All items of equipment forming part of the BNWAS should be tamper-proof so that no member of the crew may interfere with the system's operation.

6.2.2 Reset devices

Reset devices should be designed and installed so as to minimise the possibility of their operation by any means other than activation by the OOW. Reset devices should all be of a uniform design and should be illuminated for identification at night.

² IMO Resolution A.830(19)

³ IEC Publication 60945

6.2.3 Alternative reset arrangements may be incorporated to initiate the reset function from other equipment on the bridge capable of registering operator actions in positions giving proper look out.

6.3 Power supply

The BNWAS should be powered from the ship's main power supply. The malfunction indication, and all elements of the Emergency Call facility, if incorporated, should be powered from a battery maintained supply.

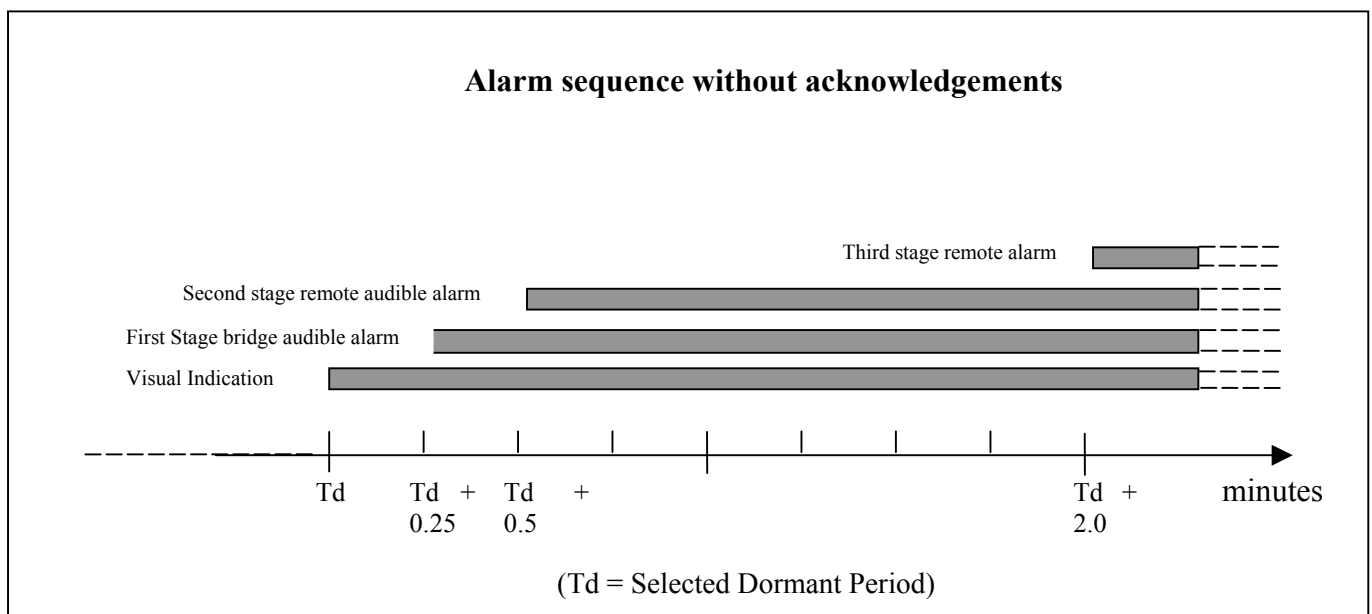
7 INTERFACING

7.1 Inputs

Inputs should be available for additional reset devices or for connection to bridge equipment capable of generating a reset signal by contacts, equivalent circuits or serial data.⁴

7.2 Outputs

Output(s) should be available for connection of additional bridge visual indications and audible alarms and remote audible alarms.



⁴ IEC Publication 61162

ANNEX 12

**RESOLUTION MSC.122(75)
(adopted on 24 May 2002)**

**ADOPTION OF THE INTERNATIONAL MARITIME
DANGEROUS GOODS (IMDG) CODE**

THE MARITIME SAFETY COMMITTEE,

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

NOTING the adoption by the Assembly of resolution A.716(17) on the International Maritime Dangerous Goods (IMDG) Code,

RECOGNIZING the need to provide a mandatory application of the agreed international standards for the carriage of dangerous goods by sea,

NOTING ALSO resolution MSC.123(75) by which it adopted amendments to chapter VII of the International Convention for the Safety of Life at Sea (SOLAS) 1974, as amended (hereinafter referred to as "the Convention"), to make the provisions of the IMDG Code mandatory under the Convention,

HAVING CONSIDERED, at its seventy-fifth session, the text of the proposed IMDG Code,

1. ADOPTS the International Maritime Dangerous Goods (IMDG) Code, the text of which is set out in the Annex to the present resolution;
2. NOTES that, under the aforementioned amendments to chapter VII of the Convention, future amendments to the IMDG Code shall be adopted, brought into force and shall take effect in accordance with the provisions of article VIII of the Convention concerning the amendment procedures applicable to the Annex to the Convention other than chapter I thereof;
3. INVITES Contracting Governments to the Convention to note that the IMDG Code will take effect on 1 January 2004 upon entry into force of the amendments to chapter VII of the Convention;
4. AGREES that Contracting Governments to the Convention may apply the IMDG Code in whole or in part on a voluntary basis as from 1 January 2003;
5. REQUESTS the Secretary-General to transmit certified copies of this resolution and its Annex to all Contracting Governments to the Convention;
6. FURTHER REQUESTS the Secretary-General to transmit copies of this resolution and its Annex to all Members of the Organization which are not Contracting Governments to the Convention;
7. NOTES that the annexed IMDG Code supersedes the existing Code adopted by resolution A.716(17).

ANNEX

INTERNATIONAL MARITIME DANGEROUS GOODS (IMDG) CODE

(For reasons of economy, the complete text of the IMDG Code, as given in document DSC 6/15/Add.1, has not been reproduced here.)

ANNEX 13

PROPOSED AMENDMENTS TO SOLAS REGULATIONS II-2/3 AND 19

CHAPTER II-2

**CONSTRUCTION – FIRE PROTECTION, FIRE DETECTION AND
FIRE EXTINCTION**

Regulation 3 – Definitions

1 In paragraph 20, the words “regulation VII/2” are replaced by the words “the IMDG Code, as defined in regulation VII/1.1”.

Regulation 19 – Carriage of dangerous goods

2 In table 19.3, in vertical columns 7 and 8 (concerning flashpoints of class 3), the numbers “3.1 and 3.2” and “3.3”, as appropriate, are replaced by the number “3”.

3 In table 19.3, in vertical column 13 (concerning class 5.2), the character “X” in rows 15 (concerning paragraph 3.10.1) and 16 (concerning paragraph 3.10.2) is replaced by the character “X¹⁶” and a new note 16 is added as follows:

“¹⁶ Under the provisions of the IMDG Code, as amended, storage of class 5.2 dangerous goods below deck or in enclosed ro-ro spaces is prohibited.”

ANNEX 14

PROPOSED AMENDMENTS TO THE INF CODE

Chapter 1 – General

1.1 Definitions

- 1 Existing sub-paragraph .3 of paragraph 1.1.1 is replaced by the following:

"3 *INF cargo* means packaged irradiated nuclear fuel, plutonium and high-level radioactive wastes carried as cargo in accordance with class 7 of the IMDG Code."

- 2 In paragraph 1.1.1.7, the reference to "VII/14.6" is replaced by the reference "VII/1.1".

1.2 Application

- 3 In paragraph 1.2.2, the word "should" is replaced by the word "shall".

ANNEX 15

PROPOSED AMENDMENTS TO THE 2000 HSC CODE

Chapter 2 – Buoyancy, stability and subdivision

- 1 The title of section 2.2.1 “Intact buoyancy”, is replaced with the title “Buoyant spaces”.
- 2 In paragraph 2.2.1.1, the following new sentence is added at the end of the existing sentence starting with “In considering ...” and ending with “ ...stability requirements.”:

“Where a buoyant space may be subjected to increased fluid pressure in the equilibrium position after damage, the boundaries and associated openings and penetrations of that space shall be designed and constructed to prevent the passage of fluid under that pressure.”
- 3 In the leading text of paragraph 2.2.3.2, the word “shall” is replaced with the word “may”.

ANNEX 16

PROPOSED AMENDMENTS TO SOLAS REGULATION II-1/18

CHAPTER II-1

**CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY,
MACHINERY AND ELECTRICAL INSTALLATIONS**

**Regulation 18 – Construction and initial tests of watertight doors, sidescuttles, etc., in
passenger ships and cargo ships**

1 Paragraph 2 of the regulation is replaced by the following:

“2 In passenger ships and cargo ships watertight doors shall be tested by water pressure to a head up to the bulkhead deck or freeboard deck respectively. Where testing of individual doors is not carried out because of possible damage to insulation or outfitting items, testing of individual doors may be replaced by a prototype pressure test of each type and size of door with a test pressure corresponding at least to the head required for the intended location. The prototype test shall be carried out before the door is fitted. The installation method and procedure for fitting the door on board shall correspond to that of the prototype test. When fitted on board, each door shall be checked for proper seating between the bulkhead, the frame and the door.”

ANNEX 17**DRAFT ASSEMBLY RESOLUTION****RECOMMENDATIONS ON TRAINING AND CERTIFICATION AND OPERATIONAL PROCEDURES FOR MARITIME PILOTS OTHER THAN DEEP-SEA PILOTS**

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 and the prevention and control of marine pollution from ships,

RECOGNIZING that maritime pilots play an important role in promoting maritime safety and protecting the marine environment,

BELIEVING that the maintaining of a proper working relationship between the pilot, the master and, as appropriate, the officer in charge of a navigational watch is important in ensuring the safety of shipping,

NOTING that since each pilotage area needs highly specialized experience and local knowledge on the part of the pilot, IMO does not intend to become involved with either the certification or licensing of pilots or the systems of pilotage practised in various States,

RECOGNIZING ALSO the high standards of pilotage services already established in many States and the need for these standards to be maintained,

CONSIDERING that in those States developing pilotage services, the establishment of practical minimum training standards, certification requirements and operational procedures to provide effective co-ordination between pilots and ship personnel, taking due account of ship bridge procedures and ship equipment, would contribute to maritime safety,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its seventy-fifth session,

1. ADOPTS the following Recommendations:
 - (a) Recommendation on training and certification of maritime pilots other than deep-sea pilots, given in Annex 1 to the present resolution;
 - (b) Recommendation on operational procedures for maritime pilots other than deep-sea pilots, given in Annex 2 to the present resolution;
2. URGES Governments to give effect to these Recommendations as soon as possible;
3. REQUESTS the Maritime Safety Committee to keep the Recommendations under review and to amend them as necessary in the light of experience gained from their implementation;
4. REVOKES resolution A.485 (XII).

ANNEX 1

RECOMMENDATION ON TRAINING AND CERTIFICATION OF MARITIME PILOTS OTHER THAN DEEP-SEA PILOTS

1 Scope

1.1 It is recognised that pilotage requires specialised knowledge and experience of a specific area and that States with many diverse waterways and ports have found it appropriate to administer pilotage on a regional or local basis.

1.2 The maritime pilots referred to in this Recommendation do not include deep-sea pilots or shipmasters or crew who are certificated or licensed to carry out pilotage duties in particular areas.

1.3 Governments should encourage the establishment or maintenance of competent pilotage authorities to administer safe and efficient pilotage systems.

2 Competent pilotage authority

2.1 Competent pilotage authority means either the national or regional Governments or local groups or organizations that by law or tradition, administer or provide a pilotage system. Governments should inform competent pilotage authorities of the provisions of this document and encourage their implementation.

2.2 The assessment of the experience, qualifications and suitability of an applicant for certification or licensing, as a pilot, is the responsibility of each competent pilotage authority.

2.3 The competent pilotage authority in co-operation with the national and local pilots' associations should:

- .1 establish the entry requirements and develop the standards for obtaining a certificate or licence in order to perform pilotage services within the area under its jurisdiction;
- .2 enforce the maintenance of developed standards;
- .3 specify whatever prerequisites, experience or examinations are necessary to ensure that applicants for certification or licensing as pilots are properly trained and qualified; and
- .4 arrange that reports on investigations of incidents involving pilotage are taken into account in maritime pilots' training programmes.

3 Pilotage certificate or licence

Every pilot should hold an appropriate pilotage certificate or licence issued by the competent pilotage authority. In addition to stating the pilotage area for which it is issued, the certificate or licence should also state any requirements or local limitations that the competent pilotage authority may specify such as maximum size, draught or tonnage of vessels that the holder is qualified to pilot.

4 Medical fitness

4.1 Each pilot should satisfy the competent pilotage authority that his or her medical fitness, particularly regarding eyesight, hearing and physical fitness meets the standards required for certification of masters and officers in charge of a navigational watch under the international Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended, or such other standards as the competent pilotage authority considers appropriate.

4.2 If a pilot has experienced a serious injury or illness, there should be a re-evaluation of his or her medical fitness prior to return to duty.

5 Training and certification or licensing standards

5.1 The competent pilotage authority is responsible for training and certification or licensing standards. The standards should be sufficient to enable pilots to carry out their duties safely and efficiently.

5.2 Standards for initial training should be designed to develop in the trainee pilot the skills and knowledge determined by the competent pilotage authority to be necessary for obtaining a pilot certificate or license. The training should include practical experience gained under the close supervision of experienced pilots. This practical experience gained on vessels under actual piloting conditions may be supplemented by simulation, both computer and manned model, classroom instruction, or other training methods.

5.3 Every pilot should be trained in bridge resource management with an emphasis on the exchange of information that is essential to a safe transit. This training should include a requirement for the pilot to assess particular situations and to conduct an exchange of information with the master and/or officer in charge of navigational watch. Maintaining an effective working relationship between the pilot and the bridge team in both routine and emergency conditions should be covered in training. Emergency conditions should include loss of steering, loss of propulsion, and failures of radar, vital systems and automation, in a narrow channel or fairway.

5.4 Initial and continuing training in the master-pilot information exchange should also cover:

- .1 regulatory requirements governing the exchange;
- .2 recognition of language, cultural, psychological and physiological impediments to effective communication and interaction and techniques for overcoming these impediments; and
- .3 best practices in the specific pilotage area.

5.5 Competent pilotage authorities should be encouraged to provide updating and refresher training conducted for certified or licensed pilots to ensure the continuation of their proficiency and updating of their knowledge, and could include the following;

- .1 courses to improve proficiency in the English language where necessary;
- .2 sessions to enhance the ability to communicate with local authorities and other vessels in the area;

- .3 meetings with local authorities and other responsible agencies to envisage emergency situations and contingency plans;
- .4 refresher or renewal courses in bridge resource management for pilots to facilitate communication and information exchange between the pilot and the master and to increase efficiency on the bridge.
- .5 simulation exercises, which may include radar training and emergency shiphandling procedures;
- .6 courses in shiphandling training centres using manned models;
- .7 seminars on new bridge equipment with special regard to navigation aids;
- .8 sessions to discuss relevant issues connected with the pilotage service including laws, rules and regulations particular to the pilotage area;
- .9 personal safety training;
- .10 techniques for personal survival at sea; and
- .11 emergency first aid, including cardio-pulmonary resuscitation (CPR) and hypothermia remediation.

6 Continued proficiency

6.1 In order to ensure the continued proficiency of pilots and updating of their knowledge, the competent pilotage authority should satisfy itself, at regular intervals not exceeding five years, that all pilots under its jurisdiction:

- .1 continue to possess recent navigational knowledge of the local area to which the certificate of licence applies;
- .2 continue to meet the medical fitness standards of paragraph 4 above; and
- .3 possess knowledge of the current international, national and local laws, regulations and other requirements and provisions relevant to the pilotage area and the pilots' duties.

6.2 Possession of knowledge required by subparagraphs 6.1.1 and 6.1.3 may be proved by an appropriate method such as personal service records, completion of continuing professional development courses or by an examination.

6.3 Where a pilot in cases of absence from duty, for whatever reason, is lacking recent experience in the pilotage area, the competent pilotage authority should satisfy itself that the pilot regains familiarity with the area on his or her return to duty.

7 Syllabus for pilotage certification or licensing

7.1 In the syllabus, area means the waters for which the applicant is to be certified or licensed. Each applicant for a pilot certificate or license should demonstrate that he or she has necessary knowledge of the following:

- .1 limits of local pilotage areas;
- .2 International Regulations for Preventing Collisions at Sea, 1972 as amended, and also such other national and local navigational safety and pollution prevention rules as may apply in the area;
- .3 system of buoyage in the area;
- .4 characteristics of the lights and their angles of visibility and the fog signals, racons and radio beacons and other electronic aids in use in the area;
- .5 names, positions and characteristics of the light vessels, buoys, beacons, structures and other marks in the area;
- .6 names and characteristics of the channels, shoals, headlands and points in the area;
- .7 bridge and similar obstruction limitations including air draughts;
- .8 depths of water throughout the area, including tidal effects and similar factors;
- .9 general set, rate, rise and duration of the tides and use of the tide tables and real-time and current data systems, if available, for the area;
- .10 proper courses and distances in the area;
- .11 anchorages in the area;
- .12 shiphandling for piloting, anchoring, berthing and unberthing, manoeuvring with and without tugs, and emergency situations;
- .13 communications and availability of navigational information;
- .14 systems of radio navigational warning broadcasts in the area and the type of information likely to be included;
- .15 traffic separation schemes, vessel traffic services and similar vessel management systems in the area;
- .16 bridge equipment and navigational aids;
- .17 use of radar and other electronic devices; their limitations and capabilities as navigation and collision avoidance aids;

- .18 manoeuvring behaviour of the types of ships expected to be piloted and the limitations imposed by particular propulsion and steering systems;
- .19 factors affecting ship performance such as wind, current, tide, channel configuration, water depth, bottom, bank and ship interaction including squat;
- .20 use and limitation of various types of tugs;
- .21 the English language to a standard adequate to enable the pilot to express communications clearly;
- .22 IMO Standard Marine Communication Phrases;
- .23 IMO Code for the investigation of marine casualties and incidents;
- .24 Master-Pilot Relationship, Pilot Card, operational procedures;
- .25 pollution prevention;
- .26 emergency and contingency plans for the area;
- .27 safe embarking and disembarking procedures; and
- .28 any other relevant knowledge considered necessary.

ANNEX 2

RECOMMENDATION ON OPERATIONAL PROCEDURES FOR MARITIME PILOTS OTHER THAN DEEP-SEA PILOTS

1 General

Efficient pilotage depends, among other things, upon the effectiveness of the communications and information exchanges between the pilot, the master and the bridge personnel and upon the mutual understanding each has for the functions and duties of the other. Establishment of effective co-ordination between the pilot, the master and the bridge personnel, taking due account of the ship's systems and equipment available to the pilot, will aid a safe and expeditious passage.

2 Duties of master, bridge officers and pilot

2.1 Despite the duties and obligations of a pilot, the pilot's presence on board does not relieve the master or officer in charge of the navigational watch from their duties and obligations for the safety of the ship. It is important that, upon the pilot boarding the ship and before the pilotage commences, the pilot, the master and the bridge personnel are aware of their respective roles in the safe passage of the ship.

2.2 The master, bridge officers and pilot share a responsibility for good communications and understanding of each other's role for the safe conduct of the vessel in pilotage waters.

2.3 Masters and bridge officers have a duty to support the pilot and to ensure that his/her actions are monitored at all times.

3 Pilot boarding point

3.1 The appropriate competent pilotage authority* should establish and promulgate the location of safe pilot embarkation and disembarkation points.

3.2 The pilot boarding point should be at a sufficient distance from the commencement of the act of pilotage to allow safe boarding conditions.

3.3 The pilot boarding point should also be situated at a place allowing for sufficient time and sea room to meet the requirements of the master-pilot information exchange (see paragraphs 5.1 to 5.6).

4 Procedures for requesting pilot

4.1 The appropriate competent pilotage authority should establish, promulgate and maintain procedures for requesting a pilot for an inbound or outbound ship, or for shifting a ship.

4.2 As human resources and technical means have to be planned well in advance, the operation of an efficient pilotage service requires information on the Estimated Time of Arrival (ETA) or Departure (ETD) to be furnished by the ship as early as possible with frequent updates where possible.

* "Competent pilotage authority" has the same meaning as in annex 1.

4.3 Communication by VHF or other dedicated means should be established as soon as possible to enable the master to confirm the ship's ETA and the Pilot Station to furnish relevant information regarding pilot boarding.

4.4 The initial ETA message to the Pilot Station should include all the information required by local regulations, including:

- .1 ship's name, call sign, ship's agent;
- .2 ship's characteristics: length, beam, draught, air draught if relevant, speed, thruster(s);
- .3 date and time expected at the pilot boarding point;
- .4 destination, berth (if required, side alongside); and
- .5 other relevant requirements and information.

5 Master - pilot information exchange

5.1 The master and the pilot should exchange information regarding navigational procedures, local conditions and rules and the ship's characteristics. This information exchange should be a continuous process that generally continues for the duration of the pilotage.

5.2 Each pilotage assignment should begin with an information exchange between the pilot and the master. The amount and subject matter of the information to be exchanged should be determined by the specific navigation demands of the pilotage operation. Additional information can be exchanged as the operation proceeds.

5.3 Each competent pilotage authority should develop a standard exchange of information practice, taking into account regulatory requirements and best practices in the pilotage area. Pilots should consider using an information card, form, checklist or other memory aid to ensure that essential exchange items are covered. If an information card or standard form is used by pilots locally regarding the anticipated passage, the layout of such a card or form should be easy to understand. The card or form should supplement and assist, not substitute for, the verbal information exchange.

5.4 This exchange of information should include at least:

- .1 presentation of a completed standard Pilot Card. In addition, information should be provided on rate of turn at different speeds, turning circles, stopping distances and, if available, other appropriate data;
- .2 general agreement on plans and procedures, including contingency plans, for the anticipated passage;
- .3 discussion of any special conditions such as weather, depth of water, tidal currents and marine traffic that may be expected during the passage;

- .4 discussion of any unusual ship-handling characteristics, machinery difficulties, navigational equipment problems or crew limitations that could affect the operation, handling or safe manoeuvring of the ship;
- .5 information on berthing arrangements; use, characteristics and number of tugs; mooring boats and other external facilities;
- .6 information on mooring arrangements; and
- .7 confirmation of the language to be used on the bridge and with external parties.

5.5 It should be clearly understood that any passage plan is a basic indication of preferred intention and both the pilot and the master should be prepared to depart from it when circumstances so dictate.

5.6 Pilots and competent pilotage authorities should be aware of the voyage planning responsibilities of masters under applicable IMO instruments*.

6 Communications language

6.1 Pilots should be familiar with the IMO Standard Marine Communication Phrases and use them in appropriate situations during radiocommunications as well as during verbal exchanges on the bridge. This will enable the master and officer in charge of the navigational watch to better understand the communications and their intent.

6.2 Communications on board between the pilot and bridge watchkeeping personnel should be conducted in the English language or in a language other than English that is common to all those involved in the operation.

6.3 When a pilot is communicating to parties external to the ship, such as vessel traffic services, tugs or linesmen and the pilot is unable to communicate in the English language or a language that can be understood on the bridge, the pilot should, as soon as practicable, explain what was said to enable the bridge personnel to monitor any subsequent actions taken by those external parties.

7 Reporting of incidents and accidents

When performing pilotage duties, the pilot should report or cause to be reported to the appropriate authority, anything observed that may affect safety of navigation or pollution prevention. In particular, the pilot should report, as soon as practicable, any accident that may have occurred to the piloted ship and any irregularities with navigational lights, shapes and signals.

* Refer to SOLAS regulation V/34 and resolution A.893(21) on Guidelines for voyage planning and STCW Code, Section A-VIII/2, Part 2

8 Refusal of pilotage services

The pilot should have the right to refuse pilotage when the ship to be piloted poses a danger to the safety of navigation or to the environment. Any such refusal, together with the reason, should be immediately reported to the appropriate authority for action as appropriate.

9 Fitness for duty

Pilots should be adequately rested and mentally alert in order to provide undivided attention to pilotage duties for the duration of the passage.

ANNEX 18

DRAFT ASSEMBLY RESOLUTION

IMPROVED GUIDELINES FOR MARINE PORTABLE FIRE EXTINGUISHERS

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,

RECALLING ALSO that it adopted, by resolution A.602(15), the Revised Guidelines for marine portable fire extinguishers, to supplement the relevant requirements of chapter II-2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, as well as chapter V of the Torremolinos International Convention for the Safety of Fishing Vessels, 1977,

RECOGNIZING the need to further improve the Revised Guidelines for marine portable fire extinguishers in view of adoption of amendments to chapter II-2 of the 1974 SOLAS Convention and of the 1993 Torremolinos Protocol and in the light of experience gained with the application of the Revised Guidelines,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its seventy-fifth session,

1. ADOPTS the Improved Guidelines for marine portable fire extinguishers, the text of which is set out in the Annex to the present resolution;
2. RECOMMENDS Governments concerned to apply the Improved Guidelines set out in the Annex, in conjunction with the appropriate requirements of the above instruments;
3. AUTHORIZES the Maritime Safety Committee to keep the Improved Guidelines under review and amend or extend them as necessary;
4. RESOLVES to supersede resolution A.602(15).

ANNEX

IMPROVED GUIDELINES FOR MARINE PORTABLE FIRE EXTINGUISHERS

1 Scope

These Guidelines have been developed to supplement the relevant requirements for marine portable fire extinguishers* of the International Convention for the Safety of Life at Sea 74, as amended, the International Code for Fire Safety Systems (FSS Code) and the 1993 Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977. The Guidelines are offered to Administrations to assist them in determining appropriate design and construction parameters. The status of the Guidelines is advisory. Their content is based on current practices and does not exclude the use of designs and materials other than those indicated below.

2 Definitions

2.1 An *extinguisher* is an appliance containing an extinguishing medium, which can be expelled by the action of internal pressure and be directed into a fire. This pressure may be stored pressure or be obtained by release of gas from a cartridge.

2.2 A *portable extinguisher* is one, which is designed to be carried and operated by hand, and which in working order has a total weight of not more than 23 kg.

2.3 *Extinguishing medium* is the substance contained in the extinguisher which is discharged to cause extinction of fire.

2.4 *Charge of an extinguisher* is the mass or volume of the extinguishing medium contained in the extinguisher. The quantity of the charge of water or foam extinguishers is normally expressed in volume (litres) and that of other types of extinguishers in mass (kilograms).

3 Classification

3.1 Extinguishers are classified according to the type of extinguishing medium they contain. At present the types of extinguishers and the uses for which they are recommended are as follows:

Extinguishing medium	Recommended for use on fires involving
Water	wood, paper, textiles and similar materials
Water with additives	
Foam	wood, paper, textiles and flammable liquids
Dry powder/dry chemical (standard/ classes B, C)	flammable liquids, electrical equipment and flammable gases
Dry powder/dry chemical (multiple or general purpose/classes A, B, C)	wood, paper, textiles, flammable liquids, electrical equipment and flammable gases
Dry powder/dry chemical (metal)	combustible metals
Carbon dioxide	flammable liquids and electrical equipment
Wet chemical for class F or K	cooking grease, fats or oil fires
Clean agents**	

* Wherever in the text of these Guidelines the word “*portable extinguisher*” appears it *should* be taken as meaning “marine portable fire extinguisher”.

** Refer to the recommendations by the International Organization for Standardization, in particular Publication ISO 7165:1999, *Fire-fighting – Portable fire extinguishers – Performance and construction*.

3.2 A table is provided in the appendix which describes the general characteristics of each type of extinguisher.

4 Construction

4.1 The construction of an extinguisher should be designed and manufactured for simple and rapid operation, and ease of handling.

4.2 Extinguishers should be manufactured to a recognized national or international standard*, which includes a requirement that the body, and all other parts subject to internal pressure, be tested:

- .1 to a pressure of 5.5 MPa or 2.7 times the normal working pressure, whichever is the higher, for extinguishers with a service pressure not exceeding 2.5 MPa; or
- .2 in accordance with the recognized standard for extinguishers with a service pressure exceeding 2.5 MPa.

4.3 In the design of components, selection of materials and determination of maximum filling ratios and densities, consideration should be given to the temperature extremes to which extinguishers may be exposed on board ships and operating temperature ranges specified in the recognized standards.

4.3 The materials of construction of exposed parts and adjoining dissimilar metals should be carefully selected to function properly in the marine environment.

5 Fire classifications

5.1 Fire classifications are generally indicated as A, B, C, D and F (or K). There are currently two standards, defining classes of fires according to the nature of the material undergoing combustion, as follows:

International Organization for Standardization (ISO standard 3941)*	National Fire Protection Association (NFPA 10)
Class A: Fires involving solid materials, usually of an organic nature, in which combustion normally takes place with the formation of glowing embers.	Class A: Fires in ordinary combustible materials such as wood, cloth, paper, rubber and many plastics.
Class B: Fires involving liquids or liquefiable solids.	Class B: Fires in flammable liquids, oils, greases, tars, oil base paints, lacquers and flammable gases.
Class C: Fires involving gases.	Class C: Fires, which involve energized electrical equipment where the electrical non-conductivity of the extinguishing medium is of importance. (When electrical equipment is de-energized, extinguishers for class A or B fires may be used safely.)
Class D: Fires involving metals.	Class D: Fires in combustible metals such as magnesium, titanium, zirconium, sodium, lithium and potassium.
Class F: Fires involving cooking oils.	Class K: Fires involving cooking grease, fats and oils.

*Comite Europeen de Normalisation (CEN standard EN2) closely follows ISO standard 3941.

* Refer to the recommendations by the International Organization for Standardization, in particular Publication ISO 7165:1999, *Fire-fighting – Portable fire extinguishers – Performance and construction*.

6 Test specifications

6.1 Construction, performance and fire-extinguishing test specifications should be to the satisfaction of the Administration, having due regard to an established international standard*

7 Criteria for assessing compliance with chapter 4 of the FSS Code and regulations V/20 and V/38 of the 1993 Torremolinos Protocol relating to the 1977 Torremolinos Convention

7.1 Chapter 4 of the FSS Code requires that extinguishers have a fire-extinguishing capability at least equivalent to that of a 9 l fluid extinguisher having a rating of 2A on class A fire which may be water or foam as required by the Administration. This equivalence may be demonstrated by fire test ratings determined according to an international, national or other recognized standard*.

7.2 The size and type of extinguishers should be dependent upon the potential fire hazards in the protected spaces while avoiding a multiplicity of types. Care should also be taken to ensure that the quantity of extinguishing medium released in small spaces does not endanger personnel.

8 Marking of extinguishers

Each extinguisher should be clearly marked with the following minimum information:

- .1 name of the manufacturer;
- .2 types of fire and rating for which the extinguisher is suitable;
- .3 type and quantity of extinguishing medium;
- .4 approval details;
- .5 instructions for use and recharge (it is recommended that operating instructions be given in pictorial form, in addition to explanatory text in language understood by the likely user);
- .6 year of manufacture;
- .7 temperature range over which the extinguisher will operate satisfactorily; and
- .8 test pressure.

9 Periodical Inspections and Maintenance

9.1 Extinguishers should be subject to periodical inspections in accordance with the manufacturer's instructions and serviced at intervals not exceeding one year.

* Refer to the recommendations by the International Organization for Standardization, in particular Publication ISO 7165:1999, *Fire-fighting – Portable fire extinguishers – Performance and construction*.

9.1.1 At least one extinguisher of each type manufactured in the same year and kept on board a ship should be test discharged at five yearly intervals (as part of a fire drill).

9.1.2 All extinguishers together with propellant cartridges should be hydraulically tested in accordance with the recognized standard or the manufacturer's instruction at intervals not exceeding ten years.

9.1.3 Service and inspection should only be undertaken by, or under the supervision of, a person with demonstrable competence, based on the inspection guide at Table 9.

9.2 Records of inspections should be maintained. The records should show the date of inspection, the type of maintenance carried out and whether or not a pressure test was performed.

9.3 Extinguishers should be provided with a visual indication of discharge.

9.4 Instructions for recharging extinguishers should be supplied by the manufacturer and be available for use on board.

ANNUAL INSPECTION	
Safety clip and indicating devices	Check to see if the extinguisher may have been operated.
Pressure indicating device	Where fitted, check to see that the pressure is within limits. Check that dust covers on pressure indicating devices and relief valves are in place.
External examination	Inspect for corrosion, dents or damage which may affect the safe operation of the extinguisher.
Weight	Weigh the extinguisher and check the mass compared to the fully charged extinguisher.
Hose and nozzle	Check that hoses and nozzles are clear and undamaged.
Operating instructions	Check that they are in place and legible.
INSPECTION AT RECHARGE	
Water and foam charges	Remove the charge to a clean container if to be reused and check if it is still suitable for further use. Check any charge container.
Powder charges	Examine the powder for reuse. Ensure that it is free flowing and that there is no evidence of caking lumps or foreign bodies.
Gas cartridge	Examine for damage and corrosion.
INSPECTION AT FIVE AND TEN YEAR INTERVALS	
INSPECTION AFTER DISCHARGE TEST	
Air passages and operating mechanism	Prove clear passage by blowing through vent holes and vent devices in the cap. Check hose, nozzle strainer, discharge tube and breather valve, as applicable. Check the operating and discharge control. Clean and lubricate as required.
Operating mechanism	Check that the safety pin is removable and that the lever is undamaged.
Gas cartridge	Examine for damage and corrosion. Weigh the cartridge to ascertain that it is within prescribed limits.
O-rings washers and hose diaphragms	Check O-rings and replace hose diaphragms if fitted.
Water and foam bodies	Inspect the interior. Check for corrosion and lining deterioration. Check separate containers for leakage or damage.
Powder body	Examine the body and check internally for corrosion and lining deterioration.
INSPECTION AFTER RECHARGE	
Water and foam	Replace the charge in accordance with the manufacturers instructions.
Reassemble	Reassemble the extinguisher in accordance with the manufacturers instructions.
Maintenance label	Fill in entry on maintenance label, including full weight.
Mounting of extinguishers	Check the mounting bracket or stand.
Report	Complete a report on the state of maintenance of the extinguisher.

Table 9 – Inspection guide

APPENDIX

Extinguishing medium used:	TYPES OF EXTINGUISHER							
	Water		Foam		Powder	Carbon dioxide	Clean agents	
	Water, with possible salts in solution			Water solution containing foam generating substances	Dry chemical Powders	Pressurized carbon dioxide		
Expellant charge of the extinguisher (stored pressure or cartridge as indicated)		Carbon dioxide or other pressurized inert gases or compressed air (stored pressure or separate cartridge)			Carbon dioxide or other pressurized inert gases or compressed air (stored pressure or separate cartridge)	Carbon dioxide or other inert gases or dry air (stored pressure or separate cartridge)		
The discharge of the extinguisher is achieved by		Opening of the valve. Action of pressurized gas (opening of the cartridge)			Opening of the valve. Action of pressurized gas (opening of the cartridge)	Opening of the valve. Action of pressurized gas (opening of the cartridge)	Opening of the valve of the container constituting the extinguisher	

	Types of Extinguisher							
	Water			Foam		Powder	Carbon dioxide	Clean agents
The discharged extinguishing medium consists of	Water with possible salts in solution			Foam containing the gas used	Dry chemical powders and carbon dioxide or other gas	Carbon dioxide		
The discharged extinguishing medium causes the extinction of the fire by:	Cooling of the burning materials. Water evaporation and consequent formation of a local atmosphere (water/steam) which isolates the burning products from the surrounding air			Formation of a foam layer which isolates the burning products from the surrounding air and cooling in the case of class A fires		Inhibition of the combustion process by the interrupting the chemical reaction. Some separation of burning materials from the surrounding air	Formation of a local inert atmosphere (carbon dioxide) which isolates the burning material from the surrounding air. Smothering and cooling action of carbon dioxide	
The electrical resistance of the discharged extinguishing medium is	Very low	Very low			Varied	Very high Under intense heat some powders may be electrically conductive	Very high	

Operating peculiarities and limitations	Types of Extinguisher				
	Water	Foam	Powder	Carbon dioxide	Clean agents
	The jet or spray of the extinguisher is to be directed towards the base of the fire		Powder mixture subject to windage; they may therefore have reduced effectiveness in the open or in ventilated spaces	Gas; subject to windage; they therefore have limited effectiveness in the open or in ventilated spaces.	
		The extinction of the fire achieved only when all the burning surface is covered by foam			

	TYPES OF EXTINGUISHER						
	Water		Foam		Powder	Carbon dioxide	Clean agents
Disadvantages and dangers	Not to be used where there is electrical hazard				Generated powder mixtures may be suffocating. impair vision Powder can damage electrical contacts.	Carbon dioxide may be suffocating	
Maintenance	Extinguishers with copper or copper alloy body should not be polished with products of corrosive or abrasive nature which may cause wall thickness reduction. Such extinguishers should be avoided but where used they should preferably be painted externally					Some types of powder may be altered by humidity; therefore, avoid the refilling of the extinguisher in humid locations	
	The charge can freeze at temperatures of about 0°C (unless the charge is made non-freezable chemically)		The charge can freeze at about 5°C. The charge can be altered by elevated temperatures (about 40°C or more). Therefore, the extinguisher should not be installed in positions where it may be exposed to high or low temperatures.				
		Avoid installing the extinguisher in excessively warm locations, where the internal pressure of the carbon dioxide in the cartridge might rise to a very high value					

ANNEX 19**DRAFT ASSEMBLY RESOLUTION****PROPER USE OF VHF CHANNELS AT SEA**

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,

RECOGNIZING that the proper use of VHF radiocommunication channels contributes to the safety of life at sea and efficiency of navigation,

RECOGNIZING ALSO that misuse of VHF radiocommunication channels may cause serious interference to essential communications and is a potential danger to safety at sea,

CONSIDERING that the risk of misuse of VHF Radiocommunication channels is more likely when VHF equipment is operated by persons not trained in its proper use,

RECALLING that the Radio Regulations* require that the service of every ship radiotelephone station shall be controlled by an operator holding a certificate issued or recognized by the Government concerned,

RECALLING ALSO that, for the certification of masters, chief mates and officers in charge of a navigational watch, the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended in 1995, requires knowledge of procedures used in radiotelephone communications and ability to use radiotelephones in particular with respect to distress, urgency, safety and navigational messages,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its seventy-fifth session,

1. INVITES Governments to ensure that all persons on board controlling the operation of VHF equipment have knowledge of procedures used in radiotelephone communications and ability to use radiotelephones in particular with respect to distress, urgency, safety and navigational messages;
2. INVITES ALSO Governments to bring the Guidelines on the use of VHF at sea to the attention of all concerned;
3. REQUESTS Governments to take appropriate action to ensure that VHF channels are used correctly;

* Radio Regulations means the Radio Regulations annexed to, or regarded as being annexed to, the most recent International Telecommunications Convention which is in force at any time.

4. ADOPTS the Guidelines on the use of VHF at sea set out in the Annex to the present resolution;
5. AUTHORIZES the Maritime Safety Committee to keep these Guidelines under review and amend them as appropriate;
6. REVOKES resolution A.474 (XII).

ANNEX

GUIDELINES ON THE USE OF VHF AT SEA

1 VHF COMMUNICATION TECHNIQUE

1.1 Preparation

Before transmitting, think about the subjects which have to be communicated and, if necessary, prepare written notes to avoid unnecessary interruptions and ensure that no valuable time is wasted on a busy channel.

1.2 Listening

Listen before commencing to transmit to make certain that the channel is not already in use. This will avoid unnecessary and irritating interference.

1.3 Discipline

VHF equipment should be used correctly and in accordance with the Radio Regulations. The following in particular should be avoided:

- .1 calling on channel 16 for purposes other than distress, urgency and very brief safety communications when another channel is available;
- .2 communications not related to safety and navigation on port operation channels;
- .3 non-essential transmissions, e.g. needless and superfluous signals and correspondence;
- .4 transmitting without correct identification;
- .5 occupation of one particular channel under poor conditions; and
- .6 use of offensive language.

1.4 Repetition

Repetition of words and phrases should be avoided unless specifically requested by the receiving station.

1.5 Power reduction

When possible, the lowest transmitter power necessary for satisfactory communication should be used.

1.6 Automatic identification system (AIS)

AIS is used for the exchange of data in ship-to-ship communications and also in communication with shore-based facilities. The purpose of AIS is to help identify vessels; assist in target tracking; simplify information exchange (e.g. reduce verbal reporting); and provide additional information to assist situation awareness. AIS may be used together with VHF voice communications. AIS should be operated in accordance with resolution A.917(22) on Guidelines for the onboard operational use of shipborne automatic identification systems (AISs).

1.7 Communications with coast stations

1.7.1 On VHF channels allocated to port operations service, the only messages permitted are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons; as the use of these channels for ship-to-ship communications may cause serious interference to communications related to the movement and safety of shipping in port areas.

1.7.2 Instructions given on communication matters by shore stations should be obeyed.

1.7.3 Communications should be carried out on the channel indicated by the coast station. When a change of channel is requested, this should be acknowledged by the ship.

1.7.4 On receiving instructions from a coast station to stop transmitting, no further communication should be made until otherwise notified (the coast station may be receiving distress or safety messages and any other transmissions could cause interference).

1.8 Communications with other ships

1.8.1 VHF channel 13 is designated by the Radio Regulations for bridge-to-bridge communications. The ship called may indicate another working channel on which further transmissions should take place. The calling ship should acknowledge acceptance before changing channels.

1.8.2 The listening procedure outlined in paragraph 1.2 should be followed before communications are commenced on the chosen channel.

1.9 Distress communications

1.9.1 Distress calls/messages have absolute priority over all other communications. When receiving them all other transmissions should cease and a listening watch should be kept.

1.9.2 Any distress call/message should be recorded in the ship's log and passed to the master.

1.9.3 On receipt of a distress message, if in the vicinity, immediately acknowledge receipt. If not in the vicinity, allow a short interval of time to elapse before acknowledging receipt of the message in order to permit ships nearer to the distress to do so.

1.10 Calling

1.10.1 In accordance with the Radio Regulations channel 16 may only be used for distress, urgency and very brief safety communications and for calling to establish other communications which should then be conducted on a suitable working channel.

1.10.2 Whenever possible, a working frequency should be used for calling.

If a working frequency is not available, VHF channel 16 may be used for calling, provided it is not occupied by a distress and urgency call/message.

1.10.3 In case of a difficulty in establishing contact with a ship or a coast station, allow adequate time before repeating the call. Do not occupy the channel unnecessarily and try another channel.

1.11 Changing channels

If communications on a channel are unsatisfactory, indicate change of channel and await confirmation.

1.12 Spelling

If spelling becomes necessary (e.g. descriptive names, call signs, words that could be misunderstood) use the spelling table contained in the International Code of Signals, the Radio Regulations and the IMO Standard Marine Communication Phrases (SMCP).

1.13 Addressing

The words "I" and "YOU" should be used prudently. Indicate to whom they refer.

Example:

"Seaship, this is Port Radar, Port Radar, do you have a pilot?"

Port Radar, this is Seaship, I do have a pilot."

1.14 Watchkeeping

Every ship, while at sea, is required to maintain watches (Regulation on Watches in Chapter IV of SOLAS, 1974, as amended). Continuous watchkeeping is required on VHF DSC channel 70 and also when practicable, a continuous listening watch on VHF channel 16.

2 VHF COMMUNICATION PROCEDURES

2.1 Calling

When calling a coast station or another ship, say the name of that coast station once (twice if considered necessary in heavy radio traffic conditions) followed by the phrase THIS IS and the ship's name twice, indicating the channel in use.

Example:

"Port City, this is Seastar, Seastar, on Channel 14."

2.2 Exchange of messages

2.2.1 When communicating with a ship whose name is unknown but whose position is known, that position may be used. In this case the call is addressed to all ships.

Example:

"Hello all ships, this is Pastoria, Pastoria. Ship approaching number four buoy, I am passing Belinda Bank Light."

2.2.2 Where a message is received and only acknowledgement of receipt is needed, say "received". Where a message is received and acknowledgement of the correct message is required, say "received, understood", and repeat message if considered necessary.

Example:

"Message: Your berth will be clear at 08.30 hours.

Reply: Received, understood. Berth clear at 08.30 hours."

2.2.3 Where appropriate, the following message should be sent:

"Please use/ I will use the IMO Standard Marine Communication Phrases".

When language difficulties exist which cannot be resolved by use of the IMO Standard Marine Communication Phrases, the International Code of Signals should be used.

In this case the word "INTERCO" should precede the groups of the International Code of Signals.

Example:

"Please use/I will use the International Code of Signals".

2.2.4 Where the message contains instructions or advice, the substance should be repeated in the reply.

Example:

"Message: Advise you pass astern of me.

Reply: I will pass astern of you."

2.2.5 If a message is not properly received, ask for it to be repeated by saying "Say again".

2.2.6 If a message is received but not understood, say "Message not understood".

2.2.7 If it is necessary to change to a different channel say "Change to channel" and wait for acknowledgement before carrying out the change.

2.2.8 During exchange of messages, a ship should invite a reply by saying "over".

2.2.9 The end of a communication is indicated by the word "out".

3 STANDARD MESSAGES

3.1 Since most ship-to-shore communications are exchanges of information, it is advisable to use standard messages which will reduce transmission time.

3.2 Commonly used standard messages are given in the IMO Standard Marine Communication Phrases (SMCP) , which should be used whenever possible.

Reference documents

- 1974 SOLAS Convention, as amended, chapter IV on Radiocommunications.
- Radio Regulations, Appendix 18, Table of Transmitting Frequencies in the VHF Maritime Mobile Band.
- Resolution A.917(22) on Guidelines for the onboard operational use of shipborne automatic identification systems (AISs).
- Resolution A.918(22) on IMO Standard Marine Communication Phrases (SMCP).

ANNEX 20

**IMO POSITION ON WRC-2003 AGENDA ITEMS CONCERNING MATTERS
RELATED TO MARITIME SERVICES**

WRC-2003 agenda item 1.3 – *to consider identification of globally/regionally harmonized bands, to the extent practicable, for the implementation of future advanced solutions to meet the needs of public protection agencies, including those dealing with emergency situations and disaster relief, and to make regulatory provisions, as necessary, taking into account Resolution 645 (WRC-2000);*

Background

Harmonized world-wide frequencies have been identified in Article 5 and Appendices 13 and 15 for use in emergencies and in search and rescue situations. These cover communications with Rescue Co-ordination Centres and between ships, aircraft and other mobile units. Detailed operational procedures for these emergency and search and rescue situations have been established in IMO and ICAO.

It may be advantageous to identify certain frequencies or frequency bands for use by public protection agencies in support for major emergency situations and disaster relief. However, the conditions of use have yet to be established. Collaboration with aeronautical/maritime rescue authorities is essential to ensure compatibility with any frequencies that may be identified in the context of this requirement.

IMO Position

IMO position is to assist in the identification of frequencies and bands for use in the situations envisaged, provided that the use is in accordance with the provisions of the Radio Regulations, and does not cause interference to operational maritime or aeronautical distress and safety radio services. In particular, the current International IMO/ICAO Search And Rescue (IAMSAR) procedures should not be affected.

WRC-2003 agenda item 1.8.1 – *consideration of the results of studies regarding the boundary between spurious and out-of-band emissions, with a view to including the boundary in Appendix 3;*

Background

This agenda item continues actions remaining from consideration of Appendix 3 at WRC-2000 on the boundary between the OOB emissions and the spurious emissions limits. ITU has adopted general limits for OOB and spurious emissions from radar systems in Recommendations ITU-R **SM.1541**, annex 8 on "Unwanted Emissions in the Out of Band Domain" and ITU-R **SM.329** on "Spurious Emissions".

In addition, Recommendation ITU-R **SM.329** contains four categories of spurious emission limits. Category A is included in Appendix 3 of the Radio Regulations. Category B, specific to the European region, is included in CEPT Recommendation 74-01.

Category A limits apply to all radar types and Category B limits apply to radar systems in the radiodetermination service (fixed radiodetermination stations - wind-profiler, multi-frequency and active array radars - are excluded).

Recommendation ITU-R **SM.1541** also specifies a "design aim" which, as it is proposed, could replace the currently agreed OOB limits after the current ITU studies are completed in about 2006. In general, the direction of the changes under study is towards more stringent limits for spurious and out-of-band emissions. This is mainly required so that various satellite and space science services are not compromised – it being impossible to correct interference generated by satellites once launched. The changes agreed in ITU-R may however have other consequences, including the invalidation of several classes of radar systems currently used at sea or on land for maritime purposes. These systems have been used for several decades without adverse effects on other radiocommunication services. Any changes of that nature are only acceptable to the maritime community if phased in over a reasonable period of time.

IMO Position

IMO supports the rationalisation of definitions and limits for spurious and out-of-band emissions, but recommends that any changes that could prematurely invalidate the present generation of radars used for maritime purposes, should be phased in over a reasonable timescale, which should be at least 10 years.

WRC-2003 agenda item 1.9 – to consider Appendix 13 and Resolution 331 (Rev.WRC-97) with a view to their deletion and, if appropriate, to consider related changes to Chapter VII and other provisions of the Radio Regulations, as necessary, taking into account the continued transition to and introduction of the Global Maritime Distress and Safety System (GMDSS);

Background

During the transition period to full implementation of the GMDSS, the Radio Regulations have maintained dual provisions; Chapter **VII** for operations within the GMDSS and Appendix **13** for non-GMDSS operations. However, maintaining support for both old and new distress and safety systems for an extended period of time is costly and inconvenient for Search and Rescue Authorities and also complicates shipboard procedures.

Additionally, in order to ensure the safety of ships at sea, the International Telecommunication Union over the years has adopted numerous regulations and operational procedures for operators of shipborne radiocommunication stations. These requirements have not lessened with the advent of the GMDSS. Appendix **16** of the Radio Regulations, for example, requires GMDSS-equipped ships to carry four large publications: the Alphabetical List of Call Signs, a List of Coast Stations and Coast Earth Stations, the List of Ship Stations and the Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services. Just one small portion of the last publication, entitled "Operational Procedures for the use of Digital Selective Calling (DSC) Equipment in the Maritime Service", contains 64 pages of instructions on operational DSC procedures.

Given that the post of Radio Officer has disappeared on board most ships following the introduction of the GMDSS, the remaining shipboard personnel can no longer be expected to remain proficient in all of these regulations, or even to use these publications to the extent originally intended when these regulations were first developed. These regulations cannot be dropped entirely, but they and the associated publications can be simplified significantly.

When the GMDSS was first developed, computer software was in its infancy, and neither IMO nor ITU equipment performance technical standards included software requirements. As a consequence, many operational details, such as those contained in the DSC operational procedures described above, were applied to operators of equipment rather than to designers of software for that equipment, with the result that operational incongruities abound. One obvious example, which leads to uncertain operating practice, is the requirement that broadcast safety messages must always be preceded by a digital selective calling announcement.

A deficiency of a more general nature in the regulatory framework is that Regulation IV/4.8 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, requires that every ship, while at sea, be capable of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks. General radiocommunications support substantial safety and safety-related communications necessary for the safe operation of shipping, yet general radiocommunications receive no special protection under the Radio Regulations (see No. **5.353A**).

IMO Position

1 Amendments to Chapter **VII**, Resolution **331** and other provisions of the Radio Regulations are needed to refine the operational provisions in respect of MF/HF/VHF distress and safety procedures, and to promote the wider implementation of the GMDSS.

2 A large number of non-SOLAS vessels have not yet been fitted for the GMDSS and these vessels should not be left without regulatory control to meet their distress and safety communication requirements. Complete deletion of the provisions contained in Appendix **13** is therefore premature at this time. Appropriate provisions for use of 2 182 kHz and VHF channel 16 for distress, urgency and safety calling by voice should be maintained in force pending a definitive conclusion on the most suitable communication techniques for such vessels. Nevertheless, the rules and procedures for 500 kHz operation can be suppressed.

3 ITU should, as a matter of urgency, undertake a significant reduction and simplification of operational procedures and regulations required of shipboard personnel. ITU should additionally conduct studies to review, modify and reduce the scope and content of regulations and publications required to be carried on ships. To help accomplish this, ITU should consider applying future regulations to the design and operation of shipboard radiocommunication equipment, rather than to persons onboard ship. As an example, Article **33**, part 33.31, paragraph 15 of the Radio Regulations, should be modified in such a way that the announcement of scheduled marine safety broadcasts by using DSC will no longer be a mandatory requirement.

WRC-2003 agenda item 1.10.1 – exhaustion of the maritime mobile service identity numbering resource (Resolution 344 (WRC-97));

Background

Maritime mobile service identities (MMSIs) are required for many shipborne communication equipment (e.g., DSC, ship earth stations). The MMSI is a 9-digit figure that provides a unique identification for ship stations, group ship stations, coast stations and group coast stations. Three of the nine MMSI digits are the Maritime Identification Digits (MIDs). MIDs represent the territory or geographical area of administrations and are assigned by ITU.

In anticipation that many ships would want access to the public switched telecommunication network via automatic radiocommunication systems, a 6-digit ship station identity was also established as part of the maritime mobile service identity concept, using just the first six digits of the ship station MMSI. The intention was that the ship station identity would be incorporated into a diallable telephone number. This scheme would also create a direct and obvious link between ship station identities and international telecommunication numbers, which could be used to facilitate the control of distress communications.

The restriction to just six digits resulted from various routing, switching or billing limitations within national networks and number space limitations in the early maritime mobile-satellite systems. Although some of these difficulties have since been resolved, the present situation remains that all ships, expected to require access to the public switched telecommunication network, have to be issued with MMSIs with three trailing zeroes in order to avoid ambiguities between the numbering systems involved. The first three digits are of course taken up with the MID. In the event, only the satellite systems have been able to resolve the various billing, routing, charging and signalling aspects in a manner compatible with the networks serving the rest of the communication environment. It has not proved feasible to establish single-stage connection procedures to ships over terrestrial radio paths that can satisfy all these aspects.

Therefore, for each MID assigned, only 999 numbers are available for use by ships with the present generation of maritime mobile-satellite networks operated by Inmarsat (Standard-B, C and M). As the number of ships carrying such systems increases, so there is more demand for MMSIs with three trailing zeros. Additional MIDs are now assigned by ITU to administrations when they have used 80% of the MMSIs with three trailing zeros. The ITU, following established procedures, will not provide additional MIDs until administrations provide the ITU with evidence that 80% of their allotted MMSIs with three trailing zeros have been assigned.

Although the resource of MIDs is limited, it is anticipated to be sufficient to meet the needs of the maritime community for the foreseeable future using the present generation of maritime mobile-satellite networks. Nevertheless, the ITU criteria and procedures for managing the MID and MMSI numbering resources can be improved by:

- .1 modifying Recommendation ITU-R **M.585-2** so as to remove restrictions on the MID number space that are no longer valid;
- .2 rationalising the criteria for assigning additional MIDs; and
- .3 modifying Resolution **344** so as to instruct ITU-R to develop a Recommendation on the management of the MID and MMSI resources entirely as an ITU-R responsibility, including concepts such as re-use of suppressed MMSIs.

The three trailing zero constraint will eventually become redundant for new ships as the present generation of ship earth stations (Inmarsat-B, C and M) reach the end of their useful life. For the purposes of international public correspondence telecommunication, the ship station identity is now only relevant for those existing systems that have the ship station identity embedded in the numbering scheme.

In the future, many new systems are expected to participate in the GMDSS. However, mobile-satellite systems are now designed to offer service to a number of different sectors, not just the maritime sector, and as such can not support embedding the ship station identity in the international telecommunication number of the ship. The IMO has confirmed in COMSAR/Circ.26 that it is no longer valid to require that the MMSI be used in these systems as part of the diallable telephone number as long as the ship can be efficiently identified by accessing a database accessible 24 hours per day by appropriate authorities. All nine digits of the MMSI will then be available for use by all classes of shipping.

IMO Position

The use and management of the MID and MMSI numbering resources is governed by various ITU-R and ITU-T Recommendations and Article 19 of the Radio Regulations. ITU should review and rationalise these provisions in accordance with COMSAR/Circ.26, thus ensuring that the MID and MMSI numbering resources will remain adequate and be available for all classes of shipping, particularly recreational and other small vessels that remain within a nation's territorial waters.

WRC-2003 agenda item 1.10.2 – *shore-to-ship distress communication priorities (Resolution 348 (WRC-97))*;

Background

A shore-based search and rescue authority has no means to interrupt or pre-empt the satellite communications in use by a vessel in a distress or safety situation. This communication inability may increase the probability of loss of life and property.

IMO Position

The Conference should invite ITU-R and ITU-T, by means of a Resolution, to develop technical recommendations that describe the means whereby a shore-based search and rescue authority may interrupt a vessel's satellite communications during a distress situation. This Resolution should be maintained until the problem is resolved.

WRC-2003 agenda item 1.14 – *to consider measures to address harmful interference in the bands allocated to the maritime mobile and aeronautical mobile (R) services, taking into account Resolutions 207 (Rev.WRC-2000) and 350 (WRC-2000), and to review the frequency and channel arrangements in the maritime MF and HF bands concerning the use of new digital technology, also taking into account Resolution 347 (WRC-97)*;

Background

Administrations have reported interference on the HF calling, distress and safety frequencies used by the aeronautical and maritime mobile services. In a continuing effort to reduce interference to HF distress and safety frequencies used in the GMDSS, WRC-2000 determined that after 31 December 2003, general calling should not be permitted on channels used for distress and safety traffic. The Radio Regulations now permit routine voice calling on the two GMDSS duplex distress and safety traffic channels in the 12 and 16 MHz bands. WRC-2000 actions removed the calling function on these two channels. These changes are

scheduled to take effect on 31 December 2003. This has caused some difficulty and financial and personnel impact to at least one maritime SAR authority that maintains listening watch in these bands, and receives occasional routine radiotelephone calls in addition to distress and safety calls. To avoid this problem, they have had to receive distress and safety calls on a working channel not designated for distress and safety purposes. This has caused some confusion to mariners wishing to send distress and safety calls.

A second related issue involves a need for more effective methods for ships and coast stations to call ships using DSC for routine communications. The Radio Regulations make it very difficult for ships and coast stations to make routine calls to other ships using DSC if all watchkeeping procedures are to be maintained with the available equipment. Alternatives for this type of communication do not exist. Channels are available for ships making routine calls to coast stations, and these channels should continue to be used. But ships do not guard these routine calling channels, and will not therefore be in a position to respond to routine calls from coast stations. Simplex HF DSC channels allowing routine calls from other ships do not exist, and experience has shown that the number of such calls would be small, and should not interfere with the distress and safety uses of this channel.

IMO Position

1 ITU-R should continue its interference-monitoring programme in these bands. Additionally, ITU-R should work with administrations whose stations are responsible for causing this interference to take necessary actions to quickly eliminate it.

2 Safety related routine voice calling on the 12 MHz and 16 MHz distress and safety radiotelephone channels should be allowed to and from those shore stations having search and rescue responsibilities, subject to safeguards being taken to not cause interference to distress and safety traffic.

3 IMO published COMSAR/Circ.17 on Recommendation on the use of GMDSS equipment for non-safety communications, which states “that GMDSS equipment should be utilized for routine communications or testing in order to ensure equipment availability and operator competency and also reduce the false alerts which are often transmitted inadvertently by inexperienced operators”. Accordingly, operators of DSC equipment should also be able to easily make routine calls, as well as distress, urgency and safety calls, to other ships as well as to and from stations on shore.

WRC-2003 agenda item 1.15 – to review the results of studies concerning the radionavigation-satellite service in accordance with Resolutions 604 (WRC-2000), 605 (WRC-2000) and 606 (WRC-2000);

Background

Resolutions **605** and **606** invite ITU-R and ICAO to conduct appropriate technical and regulatory studies in the bands used by GNSS in order to ensure that it does not cause harmful interference to radionavigation and radiolocation services. Another factor is that increasing use of radionavigation and radiolocation services near the operating frequencies used by GNSS could constrain the operation and development of GNSS.

IMO Position

Ships have become increasingly dependent on GNSSs for safe navigation in inland waterways, harbor and any areas where shipping is congested. Additionally, GNSS availability is essential in congested waters and in hazardous passing situations and is, moreover, now treated as an integral part of automatic identification systems. No constraints should therefore be placed on GNSS that will in any way lessen or degrade its availability for maritime navigation in any navigable waterway.

WRC-2003 agenda item 1.17 – to consider upgrading the allocation to the radiolocation service in the frequency range 2 900-3 100 MHz to primary;

Background

Maritime radars have operated as a safety service in the band 2 900 to 3 100 MHz for over five decades, for the purposes of navigation and collision avoidance.

During that period aeronautical and radiolocation radars have also operated in the same band. The use for radiolocation has been designated as a secondary allocation and therefore should not cause harmful interference to the primary allocation of the maritime community. There have been no continuing instances of harmful interference to maritime radars that have been identified as being caused by radiolocation radars.

Mutual compatibility between maritime radionavigation radars and radiolocation radars is fostered by differences in some of their technical characteristics including the transmission waveforms and the associated rejection of undesired pulses by receiver filtering and signal processing. In addition, this mutual compatibility is further enhanced by the scanning of their antenna beams, so that, in percentage of time, undesired energy is seldom received, either by main beam or side-lobe coupling.

The studies and measurements that have been presented in ITU-R provide a solid basis for understanding why high-powered shipborne and land-based radiolocation radars have operated in this band in many parts of the world for decades without inflicting any significant troublesome interference to maritime radionavigation radars.

The advantages to the maritime community of this upgrading are:

- a) provision of an increased deterrent to non-radiodetermination services to sharing within this band; and
- b) enhanced protection of the safety service by prolonging the life of this band as an exclusive radiodetermination band.

IMO Position

IMO supports the upgrade of the radiolocation service to co-primary status in the band 2 900 to 3 100 MHz. Additional provisions may be required in the Radio Regulations to ensure that radiolocation radars cannot compromise the operation of maritime radionavigation radars. Studies within ITU-R should continue.

WRC-2003 agenda item 1.26 – to consider the provisions under which earth stations located on board vessels could operate in fixed-satellite service networks, taking into account the ITU-R studies in response to Resolution 82 (WRC-2000);

Background

This agenda item seeks to permit the use of earth stations located on board vessels operating in fixed-satellite service networks and follows on from an initial consideration of this concept at WRC-2000.

The advantage for the maritime community is that it is possible to gain access to relatively low-cost broadband communication facilities using existing frequencies and space segments in the fixed-satellite service. Ship owners could benefit from the resulting possibilities for wideband communications which, moreover, can be operated with considerable cost savings over the current maritime mobile-satellite systems. The main uses are telephone links for passengers on cruise liners and ferries. There are also a number of applications for ships that need to transfer large amounts of data to shore. The offshore oil industry is a prime example, especially as regards survey ship operations where real-time analysis ashore of data collected on-board ship becomes possible without the cost of the satellite link being a major limitation.

The regulatory and technical provisions that would enable earth stations located on board vessels operating in fixed-satellite service networks in the bands 3 700-4 200 MHz (space-to-Earth) and 5 925-6 425 MHz (Earth-to-space) were considered at WRC-2000 under agenda Item 1.8. These discussions were very contentious and it was agreed that further technical, legal and regulatory studies were required before such operation could be recognised in the Radio Regulations. In line with this, WRC-2000 adopted Resolution **82 (WRC-2000)**, which requests the ITU-R to study, as a complement to the 4 and 6 GHz bands, the use of other fixed-satellite service allocations in the 11/14 GHz bands.

At WRC-2000, only the bands 3 700-4 200 MHz (space-to-Earth) and 5 925-6 425 MHz (Earth-to-space) came under consideration. These bands are allocated to the fixed-satellite service rather than the maritime mobile-satellite service. Since WRC-2000, several other bands allocated to the fixed-satellite service have been studied.

The use of earth stations operating in fixed-satellite service networks on board ships gives rise to a number of operational and legal issues that must be addressed because of the potential for interference to other services allocated to some of the bands under consideration.

Studies in response to Resolution **82** show that interference-free operation can only be guaranteed beyond a certain minimum distance from the coast. This effectively means that an “off-shore” distance will have to be defined within which the earth station operator has to seek the permission of all potentially affected coastal states. The extent of the offshore distance depends on the frequency bands involved, the network characteristics and whether the ships in question are in motion or stationary. Typically the off-shore-distance decreases for higher frequency bands.

In October 2001 ITU-R Working Party 4-9S developed a preliminary draft new recommendation addressing the offshore distance in the 6 and 14 GHz bands. For ships in motion, offshore distances of 300 km and 125 km are currently suggested for the 6 GHz and 14 GHz bands respectively. Preliminary draft new recommendation on this and other aspects of the agenda item will be further considered by Working Party 4-9S.

Among the additional areas under consideration are operation within the “offshore” distance and coordination methods to determine zones within which interference needs to be evaluated. Furthermore, Working Party 4-9S is also considering the suitability of the band 6 425 - 6725 MHz (extended C-band) for this purpose. Because this band is also used for passive microwave sensor measurements over the ocean a number of interference issues remain to be resolved.

IMO Position

IMO supports the orderly introduction of suitable bands for broadband maritime mobile communications in accordance with the regulatory and technical provisions needed to ensure compatibility with any other services that may be affected.

WRC-2003 agenda item 2 – to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-2000), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex to Resolution 27 (Rev.WRC-2000);

Background

The concept of incorporation by reference is also employed by IMO. The concept of incorporation by reference has been the cause of considerable discussion within ITU during WARC-92, WRC-95, WRC-97 and WRC-2000. Between WARC-92 and WRC-95 the Voluntary Group of Experts charged with simplifying the Radio Regulations recommended the explicit use of the concept in order to satisfy the twin aims of simplifying the Radio Regulations and reducing their volume by replacing many provisions of a technical or operational nature by references to ITU-R Recommendations, i.e., either existing Recommendations or Recommendations constructed for the purpose. Implicit in the concept was that the referenced texts would have the same mandatory character as would equivalent treaty text in the Radio Regulations. Many inconsistencies and difficulties were however encountered in the application of the concept at WRC-95 and more so at WRC-97. WRC-2000 therefore decided that the definition and use of incorporation by reference needed further consideration. The result was that Resolutions **27** and **28** were comprehensively revised at WRC-2000, both in terms of the use of incorporation by reference and the procedures used for updating references.

The revised Resolutions clarify the meaning of incorporation by reference which, for ITU purposes, is now restricted only to references to text intended to have mandatory effect. The rules for identifying text suitable for incorporation by reference, the method of reference and related WRC procedures for treating instances of incorporation by reference have also been set out clearly. Another important clarification is that new instances of incorporation by reference will only be allowed if forming part of the action required under a substantive WRC agenda item. The procedures to be employed during WRCs now demand that the actual texts proposed for incorporation be available as conference documents, although limited to one per delegation in

order to minimise the workload on the reprographic service. Also, a conference document summarising new or updated instances of incorporation by reference has to be developed during the conference in order to ensure that Vol. 4 of the Radio Regulations, which contains the complete texts of all referenced material, is both up-to-date and complete.

Future action on this standing agenda item will be limited to approving new instances of incorporation by reference associated with the substantive agenda items and the “housekeeping tasks” of updating references to revised ITU-R Recommendations. The Bureau will carry prime responsibility for advising on the necessary housekeeping tasks. The role of administrations will therefore be limited to determining whether proposals for new instances of incorporation by reference are preferable to other solutions, such as including vital text directly within the Radio Regulations, and monitoring for any mistakes or inconsistencies regarding updated references.

Because of the number of ITU-R Recommendations dealing with the design and operation in the maritime mobile and maritime mobile-satellite service the task of ensuring that references are kept up to date is of direct interest to IMO. Incorporation by reference is quite well-suited to material of an operational nature or to stable technical material. Some new examples of incorporation by reference are now appearing in the draft CPM texts relating to the maritime service, notably in respect of agenda item 1.9.

However, because of the added complexity introduced by WRC-2000 for dealing with material incorporated by reference, it may be advisable to pursue solutions where possible. The situation regarding the revision of references to updated material previously incorporated by reference is also no longer predictable. The problem is that of deciding if the conference is competent to revise a particular reference, especially if the topic is not related to any item on the agenda. There has been increasing reluctance at recent WRCs to make changes under the standard “housekeeping” agenda items of WRCs on issues that are not related to the substantive parts of the agenda listed in item 1. To be certain of establishing competency, a related agenda item would have to be available, in which case the basic text of the Radio Regulations could have been referenced instead.

Careful consideration therefore needs to be given to the use incorporation by reference procedure in respect of procedures or regulations affecting maritime communication services in order to ensure that the matter in question is indeed of a mandatory nature and that no simpler methods are available to achieve the same objective. Where references are non-mandatory, it is not necessary to establish specific conditions in applying the texts quoted. In such cases, reference should be made using the terminology “the most recent version” of a Recommendation.

IMO Position

Incorporation by reference is of importance to IMO because of the close relationship between many of the ITU-R Recommendations related to GMDSS equipment and its operation, and to IMO performance standards.

IMO requests early indication of any changes proposed by ITU to the mechanism of incorporation by reference and to the list of incorporated Recommendations.

IMO requests that the removal of references to ITU-R Recommendations on pre-GMDSS procedures and review of references to the ITU-R Recommendations related to the GMDSS should be undertaken at WRC-03 and continued, if necessary, at the following conference.

WRC-2003 agenda item 7.2 – *to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution 801 (WRC-2000);*

Background

The preliminary agenda for the following WRC, expected to be held in the 2005/6 timeframe already includes the item 2.2 which is intended “to review the operational procedures of the Global Maritime Distress and Safety System (GMDSS), taking into account the experience since its introduction and the needs of all classes of shipping”.

Given the continued development of the GMDSS and the attention being given to ensuring that recreational and other small vessels, especially those that remain within a nation’s territorial waters, can participate effectively, it is essential that this item is retained of the definitive agenda for the following WRC.

IMO Position

IMO notes with satisfaction that matters related to maritime distress and safety communications are placed on the preliminary agenda for the following WRC (WRC-05/06). IMO strongly recommends these agenda items are retained on the final agenda for the following WRC.

ANNEX 21**IMO STATEMENT ON IMO'S PARTICIPATION IN THE FUTURE ITU WORLD
RADIOCOMMUNICATION CONFERENCES**

Mr Chairman,
Mr Secretary-General,
Excellencies,
Distinguished Delegates.

The International Maritime Organization (IMO) is, like the International Telecommunication Union (ITU), a specialized agency of the United Nations. The existence of numerous questions of common interest to ITU and IMO requires IMO's participation in various conferences and meetings of the ITU. In particular, IMO participates in the ITU Plenipotentiary Conference, ITU World Radiocommunication Conferences and in meetings of the Radiocommunication Sector of the ITU.

Article 30 of the ITU Convention (No. CV320) states unequivocally that observers are not entitled to submit proposals. In addition, reports received from ITU Member States, the Council and the Sectors of the Union are also submitted to the Conference for consideration (No. CV321).

No specific provisions are contained in the Convention with regard to the submission of documents from observers. The current practice is that such documents are submitted to a conference as information documents by the Secretary-General of the ITU. They do not constitute proposals.

During WRC-2000, information documents were not listed as documents allocated to agenda items. They were referenced for information purposes only (Doc. WRC-2000/195, refers), and they were not introduced during the meeting.

Article 16 of the Rules of Procedures of Conferences and other meetings of the International Telecommunication Union states that it shall be the duty of the Chairman to protect the right of each delegation to express its opinion freely and fully on the point at issue. A delegation is the totality of delegates sent by the same Member State (No. CS/1005). Accordingly, observers are not identified as constituting a delegation.

Article 31A of the Rules of Procedures states that representatives of Sector Members of the Radiocommunication Sector may, with the authorization of the Chairman, make statements but shall not be authorized to participate in debates. The Rules of Procedure contain no explicit restrictions with regard to the participation in debates by those observers that are not Sector Members of the Radiocommunication Sector (such as IMO and the other specialized agencies of the United Nations identified in No. CV262).

Participation by IMO observers in a WRC can be vital to the progress of the work of the Conference since IMO contributions represent the international maritime position agreed among the 162 Member States of the Organization.

During the WRC-2000 some restrictions were placed on observers, which limited their ability to participate in the work of the Conference. For instance, observers could only take the floor if requested by a delegation through the Chairman.

IMO and the International Civil Aviation Organization (ICAO) have approached ITU, seeking clarification on this issue, and have been advised by the ITU Secretary-General that, in order for a different and more appropriate status to be considered for their participation in future WRCs, further clarification of the provisions in the legal instruments of the Union may be necessary at the forthcoming ITU Plenipotentiary Conference in 2002 (PP-2002).

The ITU Radiocommunication Advisory Group (RAG), at its ninth meeting (Geneva, 12 -16 March 2001), in addressing the issue of the role of Sector Members at WRCs, advised the ITU Secretariat that there was a need to clarify, with the legal unit of the ITU, the intent of the arrangement applied at WRC-2000. It was suggested that such clarification should be submitted to the next meeting of the RAG. The meeting also noted that some further clarification of the provisions in the legal instruments of the Union (e.g. Convention, Rules of Procedures) might be necessary at PP-2002.

Therefore, taking into account the above consideration, IMO believes that some ITU provisions addressing participation of observers from UN organizations in the ITU conferences should be developed and applied.

ANNEX 22**RESOLUTION MSC.129(75)
(adopted on 21 May 2002)****MARITIME SAFETY AND SAFETY-RELATED RADIOCOMMUNICATIONS**

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 International Telecommunication Union (ITU), at its 1997 World Radiocommunication Conference (WRC), reallocated what had been the Maritime Mobile-Satellite Service in the frequency bands 1530-1544 MHz and 1626.5-1645.5 MHz to a “generic” Mobile-Satellite Service,

RECALLING FURTHER that to protect maritime communications, the ITU included a footnote in its Radio Regulations (provision 5.353A) stating that “priority shall be given to accommodating the spectrum requirements for distress, urgency and safety communications of the Global Maritime Distress and Safety System. Maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile-satellite communications operating in a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, distress, urgency and safety communications of the GMDSS.”

NOTING that regulation IV/4.8 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended in 1988, requires every ship, while at sea, be capable of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks,

NOTING ALSO that IMO considers that general radiocommunications contain substantial safety and safety-related communications necessary for the safe operation of shipping,

CONSIDERING that, unless the above safety-related communications are clarified, general radiocommunications receive no special protection under provision 5.353A of the Radio Regulations,

NOTING FURTHER that the IMO position regarding this matter was submitted to WRC-92, WRC-95 and WRC-97,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Radiocommunications and Search and Rescue at its sixth session,

1. REAFFIRMS that all GMDSS maritime safety and safety-related radiocommunications should be afforded adequate, effective and immediate access and protection, regardless of how it is routed or to whom it is addressed;
2. NOTES that the Radio Regulations define distress, urgency and safety radiocommunications in Articles 32 and 33;

3. NOTES ALSO that distress, urgency and safety radiocommunications include, but are not limited to:

- .1 transmissions of maritime safety information;
- .2 distress calls and traffic;
- .3 acknowledgment and relaying of distress calls;
- .4 search and rescue co-ordination communications;
- .5 ship movement service communications;
- .6 communications related to the safe operation of ships;
- .7 communications related to navigation;
- .8 meteorological warnings;
- .9 meteorological observations;
- .10 ship position reports; and
- .11 medical emergencies (e.g. MEDICO/MEDIVAC);

4. REQUESTS the Secretary-General to communicate this resolution to the International Telecommunication Union.

ANNEX 23

**RESOLUTION MSC.130(75)
(adopted on 21 May 2002)**

**PERFORMANCE STANDARDS FOR INMARSAT SHIP EARTH STATIONS
CAPABLE OF TWO-WAY COMMUNICATIONS**

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.886(21), by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto, shall be performed by the Maritime Safety Committee on behalf of the Organization,

RECALLING FURTHER regulations IV/10.1 and 14.1 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, concerning radiocommunications for the Global Maritime Distress and Safety System (GMDSS), which require, respectively, that ships remaining in sea area A3 be provided with an Inmarsat ship earth station and that such ship earth stations shall conform to appropriate performance standards not inferior to those adopted by the Organization,

FURTHER RECALLING resolution A.888(21) by which the Assembly adopted the criteria and requirements for mobile-satellite communication systems being designed for use in the GMDSS after 1 February 1999 and, in particular, the requirements for new systems to provide prioritised pre-emption,

NOTING the transition of Inmarsat to a national law company and the consequential re-structuring of the International Mobile Satellite Organization (IMSO) to oversee certain public interests in the company's operations, including the continued provision of satellite services for the GMDSS,

RECOGNIZING the need to prepare performance standards for Inmarsat satellite communication equipment designed in accordance with resolution A.888(21) in order to ensure the operational reliability of such equipment and to avoid, as far as practicable, adverse interaction between satellite communication equipment and other communication and navigation equipment aboard the ship,

RECOGNIZING ALSO that Inmarsat discontinued type approval of Inmarsat-A ship earth stations in 1991,

RECOGNIZING FURTHER that the international telex service is being discontinued in an increasing number of countries,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Radiocommunications and Search and Rescue at its sixth session,

1. ADOPTS the Recommendation on performance standards for Inmarsat ship earth stations capable of two-way communications, set out in the Annex to the present resolution;
2. NOTES that part A of the Inmarsat design and installation guidelines is similar to the performance standards for ship earth stations capable of two-way communications and to the general requirements for shipborne radio equipment set out in resolution A.694(17);
3. RECOMMENDS Governments to ensure that every Inmarsat ship earth station which forms part of the GMDSS:
 - .1 if designed to operate in a system introduced after 1 February 1999, complies with the relevant requirements of resolution A.888(21) and conforms to performance standards not inferior to those specified in the Annex to the present resolution;
 - .2 if installed on or after 23 November 1996, conforms to performance standards not inferior to those specified in the Annex to resolution A.808(19);
 - .3 if installed before 23 November 1996, conforms to performance standards not inferior to those specified in the Annex to resolution A.698(17), which are in accordance with part A of the Inmarsat ship earth station design and installation guidelines;
4. INVITES IMSO to ensure that any amendments to part A of the ship earth station design and installation guidelines are agreed with the Organization prior to their adoption.

ANNEX

RECOMMENDATION ON PERFORMANCE STANDARDS FOR INMARSAT SHIP EARTH STATIONS CAPABLE OF TWO-WAY COMMUNICATIONS

1 INTRODUCTION

The ship earth station installation capable of telephony and data communications should comply with the general requirements set out in resolution A.694(17) and with the following minimum requirements.

2 TECHNICAL REQUIREMENTS

The equipment should be type approved by Inmarsat and should comply with the environmental conditions specified in its technical requirements for Inmarsat ship earth stations capable of two-way communications.

3 OPERATION

3.1 No control external to the equipment should be available for alteration of the ship station identity.

3.2 It should be possible to initiate and make distress calls by telephony or data communications from the position at which the ship is normally navigated and from any other position designated for distress alerting. In addition, where a room is provided for radiocommunications, means to initiate distress calls should also be fitted in that room.

3.3 Where no other means of receiving distress, urgency and safety broadcasts or an addressed distress alert relay are provided and existing levels of aural signals produced by the telephone or printer are considered to be inadequate, the ship earth station equipment should provide an aural/visual alarm of appropriate level.

3.4 It should be possible to interrupt or initiate distress calls at any time.

3.5 A distress call should be activated only by means of a dedicated distress button. This button should not be any key of an ITU-T digital input panel or an ISO keyboard provided on the equipment.

3.6 The dedicated distress button should* :

- .1 be clearly identified; and
- .2 be protected against inadvertent operation.

3.7 The distress call initiation should require at least two independent actions.

* MSC/Circ.862 – Clarifications of certain requirements in IMO performance standards for GMDSS equipment.

3.8 Paragraphs 3.5, 3.6 and 3.7 do not apply to Inmarsat-A ship earth stations.

4 RADIO FREQUENCY HAZARDS

In order to permit warning of potential radiation hazards to be displayed in appropriate places, a label should be attached to the radome indicating the distance at which radiation levels of 100 W/m^2 , 25 W/m^2 and 10 W/m^2 exist.

5 POWER SUPPLY

5.1 The ship earth station should normally be powered from the ship's main source of electrical energy. In addition, it should be possible to operate the ship earth station and all equipment necessary for its normal functioning, including the antenna tracking system, from an alternative source of energy.

5.2 Changing from one source of supply to another or any interruption up to 60 s of the supply of electrical energy should not render the equipment inoperative or require the equipment to be re-initialized.

6 ANTENNA SITING

6.1 It is desirable that the antenna be sited in such a position that no obstacles likely significantly to degrade the performance of the equipment appear in any azimuth down to an angle of elevation of -5° .

6.2 The sitting of the antenna needs careful consideration, taking into account the adverse effect of high levels of vibration which might be introduced by the use of a tall mast and the need to minimize shadow sectors. Objects, especially those within 10 m of the radome which cause a shadow sector of greater than 6° , are likely significantly to degrade the performance of the equipment.

6.3 The above-deck equipment should be separated, as far as is practicable, from the antennae of other communication and navigation equipment.

ANNEX 24**RESOLUTION MSC.131(75)
(adopted on 21 May 2002)****MAINTENANCE OF A CONTINUOUS LISTENING WATCH ON VHF CHANNEL 16
BY SOLAS SHIPS WHILST AT SEA AFTER 1 FEBRUARY 1999 AND
INSTALLATION OF VHF DSC FACILITIES ON NON-SOLAS SHIPS**

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 regulation 12.3, chapter IV of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended in 1988, requires that until 1 February 1999 or until such other date as may be determined by the Maritime Safety Committee, every ship while at sea shall maintain, when practicable, a continuous listening watch on VHF channel 16,

RECALLING FURTHER MSC/Circ.803 on Participation of non-SOLAS ships in the Global Maritime Safety and Distress System (GMDSS),

FURTHER RECALLING that the Maritime Safety Committee, at its sixty-ninth session in May 1998, adopted resolution MSC.77(69) on maintenance of a continuous listening watch on VHF channel 16 by SOLAS ships extended the watch requirement until 1 February 2005, taking into account the large number of non-convention vessels yet to be fitted with VHF DSC facilities still using VHF channel 16 for distress and safety purposes,

NOTING that a large number of vessels to which the SOLAS Convention does not apply had not fitted GMDSS equipment by 1 February 1999 and, if watchkeeping was discontinued on VHF channel 16 by SOLAS Convention ships, such non-Convention vessels would, if in distress, be unable to alert Global Maritime Distress and Safety System (GMDSS)-fitted ships,

NOTING ALSO the time needed for the large number of non-Convention ships being required to carry a radio installation under national legislation, to be fitted with a VHF installation which includes DSC facilities, and to provide adequate GMDSS training for the large number of personnel required to operate the radio equipment of non-Convention ships,

NOTING FURTHER the many parts of the world, not covered by VHF coast stations, where distress alerts can only be received by ships in the vicinity of those in distress,

RECOGNIZING despite the best efforts of member states to encourage seagoing vessels being voluntarily fitted with VHF radio equipment to be fitted also with facilities for transmitting and receiving distress alerts by DSC on VHF channel 70, that there are many areas of the world where this has not occurred, and will not likely occur by 1 February 2005, and that non-convention vessels are likely to continue to use non-DSC VHF equipment as long as it is serviceable, available, and permitted by national legislation,

RECOGNIZING ALSO that there will be a need for an open “short distance frequency” where ships can reach each other for immediate voice inter-ship calling for distress, urgency and safety communications until digital selective calling (DSC) on VHF channel 70 becomes a capability commonly used by both Convention and non-convention ships,

RECOGNIZING FURTHER the capability of GMDSS-fitted ships to simultaneously maintain continuous listening watch on VHF channel 16 and for digital selective calling (DSC) on VHF channel 70,

BEING OF THE OPINION that, for the time being, safety of life at sea would best be served by retaining watchkeeping for GMDSS-fitted ships on VHF channel 16 so that all ships can establish and conduct communications with each other for distress, urgency, safety and general calling,

COGNIZANT that the Maritime Safety Committee has decided that, at the earliest opportunity, VHF digital selective calling on VHF channel 70 will be used universally for initial distress, urgency and safety alerting, using VHF channel 16 as the complimentary radiotelephony channel following the initial alert,

HAVING CONSIDERED, at its seventy-fifth session, the recommendation made by the Sub-Committee on Radiocommunications and Search and Rescue at its sixth session, with respect to the continuation of listening watch by GMDSS-fitted ships,

1. DETERMINES, having regard to SOLAS regulation IV/12.3, that every ship, while at sea, shall continue to maintain, when practicable, continuous listening watch on VHF channel 16, until such time as the Maritime Safety Committee may determine the cessation of this requirement, provided that a re-assessment is undertaken by the Organization no later than 2005;

2. URGES Governments to:

- .1 require all new VHF radio equipment manufactured for, or installed on or after 1 February 1999 on, seagoing vessels to which the 1974 SOLAS Convention does not apply to be fitted with facilities capable of transmitting and receiving distress alerts by DSC on VHF channel 70;
- .2 require all seagoing vessels to which the 1974 SOLAS Convention does not apply, but which are required to carry a radio installation under national legislation, to be fitted with a radio installation which includes facilities for transmitting and receiving distress alerts by DSC on VHF channel 70 no later than 1 February 2005;
- .3 encourage seagoing vessels being voluntarily fitted with VHF radio equipment to be fitted also with facilities for transmitting and receiving distress alerts by DSC on VHF channel 70 no later than 1 February 2005;
- .4 require all vessels being fitted with facilities in accordance with subparagraphs .1 to .3 above, to maintain, when practicable, a continuous listening watch on VHF channel 16 until such time as the Maritime Safety Committee may determine the cessation of this requirement, taking into account that a re-assessment will be undertaken by the Organization no later than 2005; and to require personnel operating such equipment to be adequately trained, taking into account ITU Resolution 343 (WRC-97);

- .5 advise the Organization no later than 2005 on progress in establishing VHF DSC capability ashore and at sea to allow the Maritime Safety Committee to make appropriate decisions; and
 - .6 support the IMO position, as prescribed in the present resolution, at the ITU World Radiocommunication Conference 2003;
3. INVITES Governments to bring this decision to the attention of all seafarers, fishing vessel personnel, shipowners, ship operators, the off-shore industries, radio equipment manufacturers, coast stations and all others involved or who may be involved in search and rescue operations at sea;
4. INVITES FURTHER the Secretary-General to bring this resolution to the attention of the Secretary-General of the International Telecommunication Union.
5. REVOKES resolution MSC.77(69).

ANNEX 25

**RESOLUTION MSC.132(75)
(adopted on 22 May 2002)**

**ADOPTION OF AMENDMENTS TO THE GUIDELINES
FOR EMERGENCY TOWING ARRANGEMENTS ON TANKERS
(RESOLUTION MSC.35(63))**

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 MSC.35(63) by which it adopted Guidelines for emergency towing arrangements on tankers (hereinafter referred to as “the Guidelines”),

NOTING that by resolution MSC.99(73) it adopted, at its seventy-third session, amendments to SOLAS regulation II-1/3-4 on Emergency towing arrangements on tankers, which made it necessary to introduce consequential amendments to the Guidelines,

HAVING CONSIDERED, at its seventy-fifth session, amendments to the Guidelines as proposed by the Sub-Committee on Ship Design and Equipment at its forty-fourth session,

1. ADOPTS amendments to the Guidelines for emergency towing arrangements on tankers, the text of which is set out in the Annex to the present resolution;
2. RECOMMENDS that Member Governments bring the annexed amendments to the attention of all parties concerned.

ANNEX

**AMENDMENTS TO THE GUIDELINES FOR EMERGENCY TOWING
ARRANGEMENTS ON TANKERS (RESOLUTION MSC.35(63))**

1 In paragraph 1.1, the reference to “regulation V/15-1” should be replaced by a reference to “regulation II-1/3-4”.

2 The existing paragraph 1.3 is replaced by the following:

“1.3 For existing tankers fitted with emergency towing arrangements in accordance with resolution A.535(13), the existing towing arrangements may be retained, but the towing arrangements at one end of the ship should also comply with the pre-rigged requirements of the present Guidelines.”

3 In paragraph 2.2, the words “Forward of ship” are replaced by the words “Non pre-rigged”; the words “Aft of ship” are replaced by the words “Pre-rigged”; and the line “Chafing gear – Yes - Depending on design – Yes” is deleted.

4 The following words are added at the end of paragraph 2.2:

	“Forward of ship	Aft of ship	Strength requirements
Chafing gear	Yes	Depending on design	Yes”

5 In paragraph 3.1.1, the word “aft” is replaced by the word “pre-rigged” and the words “pre-rigged and be” are deleted.

6 In paragraph 3.1.2, in the first sentence, the word “aft” is replaced by the word “pre-rigged”.

7 In paragraph 3.1.3, the word “forward” is replaced by the words “non pre-rigged”.

8 Subparagraph .5 of paragraph 3.1 is replaced by the following:

“.5 Pre-rigged emergency towing arrangements at both ends of the ship may be accepted.”

ANNEX 26

PROPOSED AMENDMENTS TO SOLAS REGULATION II-1/31

CHAPTER II-1

**CONSTRUCTION – STRUCTURE, SUBDIVISION AND STABILITY,
MACHINERY AND ELECTRICAL INSTALLATIONS**

Regulation 31 - Machinery control

1 The following new paragraph 6 is added to the regulation after existing paragraph 5:

"6 Automation systems shall be designed in a manner which ensures that threshold warning of impending or imminent slowdown or shutdown of the propulsion system is given to the officer in charge of the navigational watch in time to assess navigational circumstances in an emergency. In particular, the systems shall control, monitor, report, alert and take safety action to slow down or stop propulsion while providing the officer in charge of the navigational watch an opportunity to intervene, except for those cases where manual intervention will result in total failure of the engine and/or propulsion equipment within a short time, e.g. overspeed."

ANNEX 27

PROPOSED AMENDMENTS TO SOLAS REGULATION III/26

CHAPTER III

LIFE-SAVING APPLIANCES AND ARRANGEMENTS

Regulation 26 - Additional requirements for ro-ro passenger ships

- 1 The following new subparagraph .4 is added at the end of paragraph 1:

"4 before []* shall comply with the requirements of paragraph 2.5 not later than the first survey on or after that date."
- 2 The following new subparagraph .5 is added at the end of paragraph 2.

".5 Liferafts carried on ro-ro passenger ships shall be fitted with a radar transponder* in the ratio of one transponder for every four liferafts. The transponder shall be mounted inside the liferaft so its antenna is more than one metre above sea level when the liferaft is deployed, except that for reversible liferafts the transponder shall be arranged to be readily accessed and erected by survivors. Each transponder shall be arranged to manually erect when the liferaft is deployed. Containers of liferafts fitted with transponders shall be clearly marked.

* Refer to the Performance standards for survival craft radar transponders for use in search and rescue operations, adopted by the Organization by resolution A.802(19)."

* Date to be decided by the Committee.

ANNEX 28

DRAFT MSC/MEPC CIRCULAR

**PROCEDURES CONCERNING OBSERVED ISM CODE
MAJOR NON-CONFORMITIES**

1 The Maritime Safety Committee at its seventy-fifth session (15 to 24 May 2002) and the Marine Environment Protection Committee at its [forty-eighth session (17 to 11 October 2002)], having recognized the need for the aforementioned procedures, approved the Procedures concerning observed ISM Code major non-conformities, set out in the annex, with a view to assisting flag States and port States when major non-conformities in a ship's or a company's safety management system have been observed.

2 Member Governments are invited to apply the annexed Procedures and bring them to the attention of the parties concerned.

ANNEX

**PROCEDURES CONCERNING OBSERVED ISM CODE
MAJOR NON-CONFORMITIES**

1 Administrations and Recognized Organizations acting on their behalf should ensure that they are fully cognizant of uncorrected major non-conformity raised at ISM Code audits. A major non-conformity found may be downgraded to a non-conformity if the Administration or recognized organization is satisfied that effective corrective action is being taken. A major non-conformity raised on a ship must be downgraded before the ship sails. A schedule not exceeding three months is to be agreed for completion of the necessary corrective actions. Where the Administration allows a major non-conformity to be downgraded, at least one additional audit should be carried out within the time frame indicated in the agreed corrective action plan to verify that effective actions are taken.

2 Upon request of the port State, the Administration should provide relevant information available to the Administration concerning the current validity of the Document of Compliance presented by the ship.

3 In the event more than one Administration and/or recognized organization is involved in the ISM certification process, any major non-conformity that leads to withdrawal of a Document of Compliance or Safety Management Certificate, or that has been allowed to be downgraded and that corrective actions have been satisfactorily completed, the involved Administration and/or recognized organization should report the action taken to the other Administration and/or recognized organization.

4 A company whose Document of Compliance has been withdrawn should not be issued an interim Document of Compliance. Furthermore, a new Document of Compliance should not be issued unless an initial verification or an additional verification to the extent and scope of an initial verification has been carried out. The new Document of Compliance should have an expiry date, the same as the withdrawn document.

5 If the withdrawal of the Company's Document of Compliance is caused by a major non-conformity not affecting the Safety Management Systems of the company's ships, the scope of verification through an initial verification or an additional verification to the extent and scope of an initial verification on board the ship may be adjusted. In such a case, however, at least one ship of each type operated by the company should be verified.

6 For a ship where the Safety Management Certificate (SMC) appears valid, but the Company's Document of Compliance has been withdrawn, the Administration or a port State ascertaining the withdrawal should ensure that the ship does not operate until the Document of Compliance is reissued. Such steps may include detention, revocation of operating permits or other action necessary to ensure compliance with the ISM Code.

7 For a ship where the Safety Management Certificate has been withdrawn, the Administration or port State ascertaining the withdrawal should ensure that the ship does not operate until the Safety Management Certificate is reissued. Such steps may include detention, revocation of operating permits or other action necessary to ensure compliance with the ISM Code.

8 For a ship whose Safety Management Certificate has been withdrawn as a result of major non-conformity, an interim Safety Management Certificate should not be issued. Furthermore, a new Safety Management Certificate should not be issued unless an initial verification or an additional verification to the extent and scope of an initial verification has been carried out on board the ship. In addition, depending on the nature of the major non-conformity raised against the Safety Management System implemented on board the ship, the validity of the Document of Compliance may also need to be verified by an audit, equivalent in scope to an annual audit, prior to the issue of the Safety Management Certificate. The new Safety Management Certificate should have an expiry date, the same as the withdrawn certificate.

ANNEX 29

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 6/16, section 7
2	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	Matters related to the probabilistic methodology for oil outflow analysis	2002	BLG 1/20, section 8; BLG 6/16, section 4
H.2	Review of Annex I of MARPOL 73/78	2003	BLG 1/20, section 9; BLG 6/16, section 5
H.3	Review of Annex II of MARPOL 73/78	2003	BLG 1/20, section 9; BLG 6/16, section 6
H.4	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 alternative tanker designs, if any (as necessary)	Continuous	BLG 1/20, section 16; BLG 4/18, paragraph 15.3

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 agenda for BLG 7.

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

		Target completion date/number of sessions needed for completion	Reference
H.5	Requirements for personnel protection involved in the transportation of cargoes containing toxic substances in all types of tankers	2002	BLG 1/20, section 12; BLG 6/16, section 10
H.6	Oil tagging systems paragraph 17.4	2003	MEPC 45/20,
H.7	Revision of the fire protection requirements of the IBC and IGC Codes (in co-operation with FP as necessary)	2 sessions	MSC 74/24, paragraph 18.5
L.1	Development of guidelines for ships operating in Arctic ice-covered waters (co-ordinated by DE)	2002	DE 43/18, section 12; MSC 71/23, paragraph 20.43; BLG 6/16, paragraph 13.4
L.2	Application of MARPOL requirements to FPSOs and FSUs	2002	MEPC 41/20, paragraph 7.7; MSC 69/22, paragraph 20.8.1; BLG 6/16, section 9
L.3	Amendments to requirements on electrical installations in the IBC and IGC Codes (in co-operation with DE)	2002	MSC 71/23, paragraph 20.3; BLG 6/16, section 8

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	Amendments to the IMDG Code*, its annexes and supplements (EmS, MFAG)	2003	DSC 3/15, paragraph 12.6; DSC 6/15, paragraph 12.2
H.2	Implementation of Annex III of MARPOL 73/78	2003	DSC 3/15, paragraph 12.6; DSC 6/15, paragraph 12.2
H.3	Cargo securing manual	2002	DSC 5/13, paragraph 10.5; MSC 73/21, paragraph 18.8

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- Notes:**
- "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.
 - Items printed in bold letters have been selected for the provisional agenda for DSC 7.

* As adopted by resolution MSC.122(75).

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

		Target completion date/number of sessions needed for completion	Reference
H.4	Development of an instrument for multimodal training requirements	2002	DSC 2/16, paragraph 13.10; DSC 6/15, paragraph 8.10
H.5	Review of the BC Code	2002	DSC 3/15, paragraph 12.7
H.6	Stowage and segregation requirements for freight containers on containerhips with partially weatherproof hatchway covers (co-ordinated by SLF)	2002	DSC 5/13, paragraph 10.6; MSC 72/23, paragraph 21.15; DSC 6/15, paragraph 9.7
H.7	Development of a manual on loading and unloading of solid bulk cargoes for terminal representatives	2002	MSC 72/23, paragraph 21.17
H.8	Measures to enhance maritime security	2004	MSC 75/24, paragraph 22.9
H.9	Guidance on serious structural deficiencies in containers	2004	MSC 75/24, paragraph 22.15

SUB-COMMITTEE ON FIRE PROTECTION (FP)

		Target completion date/number of sessions needed for completion	Reference
1	Analysis of fire casualty records	Continuous	FSI 8/19, section 11; FP 46/16, section 7
	.1 use of smoke helmet type breathing apparatus	2003	FP 46/16, paragraph 13.1.4.1; MSC 75/24, paragraph 22.18
	.2 revision of the fire casualty record	2003	FP 46/16, paragraph 13.1.4.2; MSC 75/24, paragraph 22.18
H.1	Unified interpretations of SOLAS chapter II-2, the FSS Code and related fire test procedures	2004	FP 43/18, paragraphs 5.7, 7.25 and 15.3.5.1; FP 46/16, section 5
H.2	Large passenger ship safety	2003	MSC 74/24, paragraph 21.4; FP 46/16, section 11
H.3	Revision of the fishing vessel Safety Code and Voluntary Guidelines (co-ordinated by SLF)	2003	MSC 74/24, paragraph 21.5; FP 46/16, section 10
H.4	Performance testing and approval standards for fire safety systems	2005	MSC 74/24, paragraph 21.12; FP 46/16, section 12
H.5	Guidelines for the manufacture and installation of oil mist detectors	2004	MSC 75/24, paragraph 22.20

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 - 2 Items printed in bold letters have been selected for the provisional agenda for FP 47.

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

		Target Completion date/number of sessions needed for completion	Reference
H.6	Revision of the gas concentration limit on sulphur dioxide for floor coverings	2004	MSC 75/24, paragraph 22.21
H.7	Review of the OSV Guidelines (co-ordinated by DE)	3 sessions	MSC 75/24, paragraph 22.4
H.8	Use of directional sound for passenger evacuation	2004	MSC 75/24, paragraph 22.19
L.1	Revision of resolution A.654(16)	2003	FP 41/22, section 12; FP 46/16, section 8
L.2	Recommendation on evacuation analysis for new and existing passenger ships	2 sessions	MSC 73/21, paragraph 4.16; FP 46/16, section 3
L.3	Smoke control and ventilation	2 sessions	FP 39/19, section 9; FP 46/16, section 4

SUB-COMMITTEE ON FLAG STATE IMPLEMENTATION (FSI)

		Target completion date/number of sessions needed for completion	Reference
1	Mandatory reports under MARPOL 73/78	Continuous	MSC 70/23, paragraph 20.12.1; FSI 10/17, section 8
2	Casualty statistics and investigations	Continuous	MSC 68/23, paragraphs 7.16 to 7.24; FSI 10/17, section 9
3	Regional co-operation on port State control	Continuous	FSI 10/17, section 6
4	Reporting procedures on port State control detentions and analysis and evaluation of reports	Continuous	MSC 71/23, paragraph 20.16; FSI 10/17, section 7
5	Responsibilities of Governments and measures to encourage flag State compliance	Continuous	MSC 68/23, paragraphs 7.2 to 7.8; FSI 10/17, section 3
6	Comprehensive analysis of difficulties encountered in the implementation of IMO instruments	Continuous	MSC 69/22, paragraph 20.28; FSI 8/19, section 4
H.1	PSC on seafarers' working hours	2 sessions	MSC 70/23, paragraph 20.12.3; FSI 7/14, paragraphs 7.11 to 7.13; MSC 71/23, paragraph 13.13
H.2	Review of resolution A.746(18)	2004	MSC 72/23, paragraph 21.27; FSI 10/17, section 10;

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2 Items printed in bold letters have been selected for the provisional agenda for FSI 11.

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

		Target completion date/number of sessions needed for completion	Reference
H.3	Self-assessment of flag State performance	2003	MSC 70/23, paragraphs 9.2 to 9.14; MSC 71/23, paragraph 20.15; FSI 10/17, section 4
H.4	Illegal, unregulated and unreported (IUU) fishing and implementation of resolution A.925(22)	2005	MSC 72/23, paragraph 21.28; FSI 10/17, section 11 MSC 75/24, paragraphs 13.11 and 22.25.3
H.5	Development of guidelines under 2001 AFS Convention	2004	MEPC 45/20, paragraph 17.1; MEPC 46/23, paragraphs 5.19 and 5.20; FSI 10/17, section 13
H.6	Measures to prevent accidents with lifeboats (co-ordinated by DE)	2004	MSC 74/24, paragraph 21.34; FSI 10/17, paragraphs 14.6 and 14.10.3.1
H.7	Development of provisions on transfer of class	2004	MSC 74/24, paragraph 2.13.15.2; FSI 10/17, paragraphs 14.2 and 14.10.4.1; MSC 75/24, paragraph 22.24
H.8	Ship recycling-related matters*	2003	MSC 74/24, paragraph 2.8; MEPC 47/20 paragraph 3.27; FSI 10/17, paragraphs 3.24, 3.25, 14.8 and 14.10.4.2
L.1	Introduction of the HSSC into MARPOL Annex VI on prevention of air pollution	2004	MEPC 41/20, paragraph 8.22.1; MSC 69/22, paragraph 20.28; FSI 9/19, paragraph 9.3

* Subject to the decision of MEPC 48.
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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 6/22, section 3
	.1 matters relating to the GMDSS Master Plan	Continuous	COMSAR 6/22, paragraphs 3.1 to 3.4
	.2 replies to questionnaire on casualties	Continuous	COMSAR 1/30, paragraphs 3.15 to 3.16
	.3 exemptions from radio requirements	Continuous	COMSAR 4/14, paragraphs 3.38 to 3.41
2	Promulgation of maritime safety information (MSI) (in co-operation with ITU, IHO, WMO and IMSO)		
	.1 operational and technical co-ordination provisions of Maritime Safety Information (MSI) services, including review of the related documents	Continuous	COMSAR 6/22, paragraphs 3.5 to 3.23
3	ITU World Radiocommunication Conference matters	Continuous	COMSAR 6/22, paragraphs 5.8 to 5.17
4	Radiocommunication ITU-R Study Group 8 matters	Continuous	COMSAR 6/22, paragraphs 5.1 to 5.7
5	Satellite services (Inmarsat and COSPAS-SARSAT)	Continuous	COMSAR 6/22, section 6

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2 Items printed in bold letters have been selected for the provisional agenda for COMSAR 7.

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

		Target completion date/number of sessions needed for completion	Reference
6	Matters concerning search and rescue, including those related to the 1979 SAR Conference and the implementation of the GMDSS		
.1	harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters	2003	COMSAR 4/14, paragraphs 8.1 to 8.19; COMSAR 6/22, paragraphs 8.1 to 8.13
.2	plan for the provision of maritime SAR services, including procedures for routing distress information in the GMDSS	Continuous	COMSAR 6/22, paragraphs 8.14 to 8.44
.3	revision of the IAMSAR Manual	Continuous	MSC 71/23, paragraph 20.2; COMSAR 6/22, section 15
.4	medical assistance in SAR services	2003	COMSAR 6/22, paragraph 19.6.3.1; MSC 75/24, paragraph 22.29
7	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4
H.1	Procedures for responding to DSC alerts	2003	COMSAR 4/14, paragraph 3.49; MSC 72/23, paragraph 21.32; COMSAR 6/22, paragraph 3.24 to 3.28

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

		Target completion date/number of sessions needed for completion	Reference
H.2	Amendments to SOLAS chapter IV pursuant to the criteria set out in resolution A.888(21)	3 sessions	MSC 72/23, paragraph 21.33.1.2
H.3	Development of a procedure for recognition of mobile-satellite systems	2003	MSC 72/23, paragraph 21.33.1.3; COMSAR 6/22, section 16
H.4	Developments in maritime radiocommunication systems and technology	2003	MSC 74/24; paragraph 21.25.1; COMSAR 6/22, section 14
H.5	Bridge-to-bridge radiocommunications	2003	MSC 74/24, paragraph 21.25.2; COMSAR 6/22, paragraphs 9.1 to 9.3 and 9.7
H.6	Large passenger ship safety	2003	MSC 74/24, paragraph 21.4; COMSAR 6/22, section 11
H.7	Revision of the performance standards for NAVTEX equipment	2003	MSC 74/24, paragraph 21.26; COMSAR 6/22, section 17
H.8	Emergency radiocommunications, including false alerts and interference	2003	COMSAR 6/22, paragraph 7.8
H.9	Review of performance standards provisions (resolution A.809(19)) to require means of attachment of radiotelephone apparatus to its user	2003	MSC 75/24, paragraph 22.31
H.10	Review of the OSV Guidelines (co-ordinated by DE)	3 sessions	MSC 75/24, paragraph 22.4

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

	Target completion date/number of sessions needed for completion	Reference
H.11 Amendments to the DSC Code and the 1994 HSC Code (co-ordinated by DE)	2004	MSC 75/24, paragraph 22.8
H.12 Review of the SOLAS and SAR Convention provisions regarding the treatment of persons rescued at sea	2004	MSC 75/24, paragraphs 11.53 and 22.30.1
H.13 Measures to enhance maritime security	2004	MSC 75/24, paragraph 22.9
L.1 Harmonization of GMDSS requirements for radio installations on board SOLAS ships	2003	MSC 71/23, paragraph 20.23; COMSAR 6/22, paragraph 18.2
L.2 Revision of the forms of nuclear ship safety certificates (co-ordinated by DE)	2 sessions	MSC 75/24, paragraph 22.6
L.3 Review of the FAL and SALVAGE Convention provisions to address the treatment of persons rescued at sea	2004	MSC 75/24, paragraphs 11.53 and 22.30.2

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 72/23, paragraphs 10.69 to 10.71 and 20.41 to 20.42; NAV 47/13, section 3
2	ITU matters, including Radio-communication ITU-R Study Group 8 matters	2003	MSC 69/22, paragraphs 5.69 to 5.70; NAV 47/13, section 8 and paragraph 10.7
3	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4; NAV 47/13, paragraph 10.7
H.1	World-wide radionavigation system	3 sessions	MSC 75/24, paragraph 22.37
H.2	Feasibility study on carriage of VDR on existing cargo ships	2004	MSC 73/21, paragraphs 11.31 and 18.22; NAV 47/13, paragraph 10.7
H.3	Large passenger ship safety: effective voyage planning for large passenger ships	2003	MSC 73/21, paragraph 18.23; MSC 74/24, paragraph 21.4; NAV 47/13, section 9

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2 Items printed in bold letters have been selected for the provisional agenda for NAV 48.

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

		Target completion date/number of sessions needed for completion	Reference
H.4	Places of refuge (in co-operation with COMSAR and MEPC)	2003	MSC 74/24, paragraph 21.31; NAV 47/13, paragraphs 12.18 to 12.27
H.5	Revision of the fishing vessel Safety Code and Voluntary Guidelines (co-ordinated by SLF)	2003	MSC 74/24, paragraph 21.5; NAV 47/13, paragraph 10.7
H.6	Revision of the performance standards for radar reflectors	2003	MSC 74/24, paragraph 21.29; NAV 47/13, paragraph 12.42
H.7	Anchoring, mooring and towing equipment (co-ordinated by DE)	2003	MSC 74/24, paragraph 21.30; NAV 47/13, paragraphs 12.43 to 12.48
H.8	Measures to prevent accidents with lifeboats (co-ordinated by DE)	2003	MSC 74/24, paragraph 21.34; NAV 47/13, paragraph 10.7
H.9	Matters related to bulk carrier safety	2002	MSC 74/24, paragraph 21.6; NAV 47/13, Paragraph 10.7
H.10	Review of performance standards for radar equipment	2003	MSC 74/24, paragraphs 9.16 to 9.17; NAV 47/13, paragraphs 10.6 and 10.7.3; MSC 75/24, paragraph 22.34

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

		Target completion date/number of sessions needed for completion	Reference
H.11	Review of the OSV Guidelines (co-ordinated by DE)	3 sessions	MSC 75/24, paragraph 22.4
H.12	Requirements for the display and use of AIS information on shipborne navigational displays	2004*	MSC 75/24, paragraph 22.35
H.13	Amendments to the DSC Code and the 1994 HSC Code (co-ordinated by DE)	2004*	MSC 75/24, paragraph 22.8
H.14	Measures to enhance maritime security	2004*	MSC 75/24, paragraph 22.9
L.1	Integrated bridge systems (IBS) operational aspects	2002	MSC 70/23, paragraph 20.17.2; NAV 46/16, section 5; NAV 47/WP.1, paragraphs 2.11 to 2.12
L.2	Revision of the forms of nuclear ship safety certificates (co-ordinated by DE)	2 sessions	MSC 75/24, paragraph 22.6

* To be included in the provisional agenda for NAV 49.

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	Guidelines for on-board NOx monitoring and recording devices	2003	DE 44/19, section 10; DE 45/27, section 4
H.2	Revision of resolutions MEPC.60(33) and A.586(14)	2003	MEPC 42/22, paragraph 15.7; DE 45/27, section 5
H.3	Amendments to resolution A.744(18)	2003	DE 45/27, paragraphs 7.18 and 7.19
H.4	Safety aspects of water ballast management	2003	MSC 71/23, paragraph 9.11; DE 45/27, paragraph 24.1.4
H.5	Large passenger ship safety	2003	MSC 74/24, paragraph 21.4; DE 45/27, section 13
H.6	Revision of the fishing vessel Safety Code and Voluntary Guidelines (co-ordinated by SLF)	2003	MSC 74/24, paragraph 21.5; DE 45/27, section 11
H.7	Measures to prevent accidents with lifeboats (in co-operation with FSI, NAV and STW)	2004	MSC 74/24, paragraph 21.34; DE 45/27, section 17

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- Notes:**
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 - 2 Items printed in bold letters have been selected for the provisional agenda for DE 46.

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

		Target completion date/number of sessions needed for completion	Reference
H.8	Protection of fuel tanks (in co-operation with BLG and SLF as necessary)	2 sessions	DE 44/19, paragraph 2.7.2; MEPC 46/23, paragraph 20.18; MSC 74/24, paragraph 21.36
H.9	Interpretations of the 2000 HSC Code	2003	MSC 74/24, paragraph 21.37; DE 45/27, section 17
H.10	Review of fast rescue boat and means of rescue requirements	2003	MSC 74/24, paragraph 21.39; DE 45/27, section 20
H.11	Anchoring, mooring and towing equipment	2003	MSC 74/24, paragraph 21.42; DE 45/27, section 16
H.12	Carriage and stowage of immersion suits	2003	MSC 74/24, paragraph 21.44; DE 45/27, section 18
H.13	Performance testing and approval standards for SOLAS personal life-saving appliances	2004	MSC 74/24, paragraph 21.46; DE 45/27, section 19
H.14	Review of the OSV Guidelines (in co-operation with FP, COMSAR, NAV and SLF)	3 sessions	MSC 75.24, paragraph 22.4
H.15	Amendments to the DSC Code and the HSC Code (in co-operation with COMSAR and NAV)	2004	MSC 75/24, paragraph 22.8

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

		Target completion date/number of sessions needed for completion	Reference
L.1	Guidelines under MARPOL Annex VI on prevention of air pollution from ships	[2003]* [2 sessions]*	MEPC 41/20, paragraph 8.22.1; DE 42/15, paragraphs 10.2 to 10.4
	.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		
L.2	Amendments to SOLAS requirements on electrical installations (co-ordinated by BLG)	2003	MSC 74/24, paragraph 11.3; DE 45/27, section 15
L.3	Protection of pump-rooms of tankers and access to shore-based computer programs for salvage operations (in co-operation with BLG as necessary)	2 sessions	MEPC 47/20, paragraph 18.15
L.4	Revision of the forms of nuclear ship safety certificates (in co-operation with COMSAR and NAV)	2 sessions	MSC 75/24, paragraph 22.6

* Subject to the decision of MEPC 48.

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	MSC 70/23, paragraph 20.4; SLF 30/18, paragraphs 4.16 and 4.17
2	Analysis of damage cards	Continuous	MSC 70/23, paragraph 20.4; SLF 41/18, paragraph 17.5
H.1	Development of the revised SOLAS chapter II-1 parts A, B and B-1	2003	SLF 42/18, section 3; MSC 72/23, paragraph 21.52; SLF 44/18, paragraph 15.2.2
H.2	Development of explanatory notes for harmonized SOLAS chapter II-1 parts A, B and B-1	2 sessions	MSC 69/22, paragraph 20.60.1; SLF 42/18, section 5; SLF 44/18, paragraph 15.2.2
H.3	Revision of technical regulations of the 1966 LL Convention	2002	SLF 43/16, paragraph 4.29; SLF 44/18, section 4
H.4	Revision of the fishing vessel Safety Code and Voluntary Guidelines (in co-operation with FP, COMSAR, NAV, DE and STW)	2004	SLF 43/16, section 5; MSC 73/21, paragraph 18.32; SLF 44/18, section 5

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 inclusion in the provisional agenda for SLF 45.

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.5	Safety aspects of ballast water management	1 session	MSC 71/23, paragraph 9.11
H.6	Large passenger ship safety	2003	MSC 74/24, paragraph 21.4; SLF 44/18, section 11
H.7	Revision of the model test method specified in the 1995 SOLAS Conference resolution 14	2003	MSC 74/24, paragraph 21.51; SLF 44/18, section 13
H.8	Matters related to bulk carrier safety	2002	MSC 74/24, paragraph 21.6; SLF 44/18, section 12
H.9	Review of the Intact Stability Code	2004	SLF 41/18, paragraph 3.14; SLF 44/18, paragraphs 15.2.4 and 17.1 to 17.4
H.10	Review of the OSV Guidelines (co-ordinated by DE)	3 sessions	MSC 75/24, paragraph 22.4
L.1	Harmonization of damage stability provisions in other IMO instruments, including the 1993 Torremolinos Protocol (probabilistic method)	3 sessions	MSC 65/25, paragraph 21.23; SLF 44/18, paragraph 15.2.2
L.2	Containership partially weathertight hatch covers (in co-operation with DE, DSC and FP)	2002	MSC 68/23, paragraph 20.60; SLF 44/18, section 9

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

		Target completion date/number of sessions needed for completion	Reference
1	Validation of model training courses	Continuous	STW 31/17, paragraph 14.4; STW 33/17, section 3
2	Casualty analysis (co-ordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4; STW 33/17, section 8
H.1	Follow-up action to the 1995 STCW Conference including:		
.1	preparation of procedures for regular updating of the so-called "white list" and consideration of the need for amending the STCW Convention and the STCW Code	2 sessions	STW 33/17, paragraph 14.3.1; MSC 75/24, paragraph 22.46.1
.2	watchkeeping at anchor	2 sessions	STW 33/17, paragraph 14.3.2 MSC 75/24, paragraph 22.46.2
.3	preparation of amendments to the STCW Code to clarify the title of certificates and endorsements relating to the revised STCW Convention	2 sessions	MSC 75/24, paragraph 22.47.1
.4	review of the STCW Convention requirements and procedures relating to the recognition of certificates under STCW regulation I/10	2 sessions	MSC 75/24, paragraph 22.47.2

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- 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 agenda for STW 34.

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

		Target completion date/number of sessions needed for completion	Reference
H.2	Follow-up action to the 1995 STCW-F Conference including:		STW 33/17, section 7
	.1 guidance on training, certification and watchkeeping standards for fishing vessel personnel serving on board large fishing vessels (resolution 6)	2 sessions	STW 32/16, paragraph 7.11
	.2 requirements for officers in charge of an engineering watch and watchkeeping provisions (resolution 7)	2 sessions	
	.3 clarification of STCW-F Convention requirements	2 sessions	
H.3	Unlawful practices associated with certificates of competency	2005	MSC 71/23, paragraph 20.55.2; STW 33/17, section 6
H.4	Large passenger ship safety	2003	MSC 74/24, paragraph 21.4; STW 33/17, section 11
H.5	Training of crew in launching/recovering operations of fast rescue boats and means of rescue in adverse weather conditions	2003	MSC 74/24, paragraph 21.56; STW 33/17, section 13
H.6	Measures to prevent accidents with lifeboats (co-ordinated by DE)	2 sessions	MSC 74/24, paragraph 21.34
H.7	Measures to enhance maritime security	2004	STW 33/17, paragraph 14.4; MSC 75/24, paragraphs 22.9 and 22.45
H.8	Mandatory education and training requirements for fatigue prevention, mitigation and management	2004	MSC 75/24, paragraph 22.48

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

		Target completion date/number of sessions needed for completion	Reference
L.1	Development of requirements for training in ballast water management	2 sessions	MSC 71/23, paragraph 20.55.3; STW 33/17, section 9 and paragraph 14.2.2
L.2	Review of the implementation of STCW chapter VII	2 sessions	STW 31/17, paragraph 14.4; MSC 72/23, paragraph 21.56

ANNEX 30

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

SUB-COMMITTEE ON BULK LIQUIDS AND GASES (BLG) – 7TH SESSION

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Matters related to the probabilistic methodology for oil outflow analysis
 - 4 Review of Annex I of MARPOL 73/78
 - 5 Review of Annex II of MARPOL 73/78
 - 6 Evaluation of safety and pollution hazards of chemicals and preparation of consequential amendments
 - 7 Amendments to requirements on electrical installations in the IBC and IGC Codes
 - 8 Application of MARPOL requirements to FPSOs and FSUs
 - 9 Requirements for personnel protection involved in the transportation of cargoes containing toxic substances in all types of tankers
 - 10 Oil tagging systems
 - 11 Development of guidelines for ships operating in Arctic ice-covered waters
 - 12 Work programme and agenda for BLG 8
 - 13 Election of Chairman and Vice-Chairman for 2003
 - 14 Any other business
 - 15 Report to the Committees

SUB-COMMITTEE ON DANGEROUS GOODS, SOLID CARGOES AND CONTAINERS (DSC) – 7TH SESSION

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Amendments to the IMDG Code, its annexes and supplements (EmS, MFAG), including harmonization of the IMDG Code with the UN Recommendations on the Transport of Dangerous Goods
 - .1 amendments to the IMDG Code, its annexes and supplements (EmS, MFAG)
 - .2 implementation of Annex III of MARPOL 73/78
 - 4 Review of the BC Code, including evaluation of properties of solid bulk cargoes
 - 5 Cargo securing manual
 - 6 Casualty and incident reports and analysis
 - 7 Development of an instrument for multimodal training requirements
 - 8 Stowage and segregation requirements for freight containers on containerhips with partially weatherproof hatchway covers
 - 9 Development of a manual on loading and unloading of solid bulk cargoes for terminal representatives
 - 10 Guidance on serious structural deficiencies in containers
 - 11 Measures to enhance maritime security
 - 12 Work programme and agenda for DSC 8
 - 13 Election of Chairman and Vice-Chairman for 2003
 - 14 Any other business
 - 15 Report to the Maritime Safety Committee

SUB-COMMITTEE ON FIRE PROTECTION (FP) – 47TH SESSION

- Opening of the session
- 1 Adoption of the agenda
- 2 Decisions of other IMO bodies
- 3 Unified interpretations of SOLAS chapter II-2, the FSS Code and related fire test procedures
- 4 Analysis of fire casualty records
 - .1 use of smoke helmet type breathing apparatus
 - .2 revision of the fire casualty record
- 5 Revision of resolution A.654(16)
- 6 Revision of the fishing vessel Safety Code and Voluntary Guidelines
- 7 Large passenger ship safety
- 8 Performance testing and approval standards for fire safety systems
- 9 Guidelines for the manufacture and installation of oil mist detectors
- 10 Revision of the gas concentration limit on sulphur dioxide for floor coverings
- 11 Use of directional sound for passenger evacuation
- 12 Work programme and agenda for FP 48
- 13 Election of Chairman and Vice-Chairman for 2004
- 14 Any other business
- 15 Report to the Maritime Safety Committee

SUB-COMMITTEE ON FLAG STATE IMPLEMENTATION (FSI) – 11TH SESSION

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Mandatory reports under MARPOL 73/78
 - 4 Casualty statistics and investigations
 - 5 Regional co-operation on port State control
 - 6 Reporting procedures on port State control detentions and analysis and evaluation of reports
 - 7 Responsibilities of Governments and measures to encourage flag State compliance
 - 8 Comprehensive analysis of difficulties encountered in the implementation of IMO instruments
 - 9 Review of resolution A.746(18)
 - 10 Self-assessment of flag State performance
 - 11 Illegal, unregulated and unreported (IUU) fishing and implementation of resolution A.925(22)
 - 12 Development of guidelines under 2001 AFS Convention
 - 13 Measures to prevent accidents with lifeboats
 - 14 Development of provisions on transfer of class
 - 15 Ship recycling-related matters*
 - 16 Introduction of the HSSC into MARPOL Annex VI on prevention of air pollution
 - 17 Work programme and agenda for FSI 12
 - 18 Election of Chairman and Vice-Chairman for 2004
 - 19 Any other business
 - 20 Report to the Committees

* Subject to the decision of MEPC 48.

SUB-COMMITTEE ON RADIOCOMMUNICATIONS AND SEARCH AND RESCUE (COMSAR) – 7TH 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 operational and technical co-ordination provisions of Maritime Safety Information (MSI) services, including review of the related documents
 - .3 procedures for responding to DSC alerts
- 4 ITU maritime radiocommunication matters
 - .1 Radiocommunication ITU-R Study Group 8
 - .2 ITU World Radiocommunication Conference matters
- 5 Satellite services (Inmarsat and COSPAS-SARSAT)
- 6 Emergency radiocommunications, including false alerts and interference
- 7 Matters concerning search and rescue, including those related to the 1979 SAR Conference and the implementation 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 routing distress information in the GMDSS
 - .3 medical assistance in SAR services
- 8 Review of the SOLAS and SAR Convention provisions regarding the treatment of persons rescued at sea
- 9 Bridge-to-bridge radiocommunications
- 10 Large passenger ship safety
- 11 Developments in maritime radiocommunication systems and technology

Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) – 7th session
(continued)

- 12 Revision of the IAMSAR Manual
- 13 Development of a procedure for recognition of mobile-satellite systems
- 14 Revision of performance standards for NAVTEX equipment
- 15 Review of performance standards provisions (resolution A.809(19)) to require means of attachment of radiotelephone apparatus to its user
- 16 Measures to enhance maritime security
- 17 Harmonization of GMDSS requirements for radio installations on board SOLAS ships
- 18 Amendments to the DSC Code and the 1994 HSC Code
- 19 Review of the FAL and SALVAGE Convention provisions to address the treatment of persons rescued at sea
- 20 Work programme and agenda for COMSAR 8
- 21 Election of Chairman and Vice-Chairman for 2004
- 22 Any other business
- 23 Report to the Maritime Safety Committee

SUB-COMMITTEE ON SAFETY OF NAVIGATION (NAV)– 48TH SESSION

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Routing of ships, ship reporting and related matters
 - 4 Integrated bridge systems (IBS) operational aspects
 - 5 Places of refuge
 - 6 Revision of the fishing vessel Safety Code and Voluntary Guidelines
 - 7 Anchoring, mooring and towing equipment
 - 8 Feasibility study on carriage of VDR on existing cargo ships
 - 9 Revision of performance standards for radar reflectors
 - 10 Review of performance standards for radar equipment
 - 11 ITU matters, including Radiocommunication ITU-R Study Group 8 matters
 - 12 Large passenger ship safety: effective voyage planning for large passenger ships
 - 13 Measures to prevent accidents with lifeboats
 - 14 Matters related to bulk carrier safety
 - 15 Casualty analysis
 - 16 Work programme and agenda for NAV 49
 - 17 Election of Chairman and Vice-Chairman for 2003
 - 18 Any other business
 - 19 Report to the Maritime Safety Committee

SUB-COMMITTEE ON SHIP DESIGN AND EQUIPMENT (DE) – 46TH SESSION

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Guidelines for on-board NO_x monitoring and recording devices
 - 4 Revision of resolutions MEPC.60(33) and A.586(14)
 - 5 Amendments to resolution A.744(18)
 - 6 Safety aspects of ballast water management
 - 7 Large passenger ship safety
 - 8 Revision of the fishing vessel Safety Code and Voluntary Guidelines
 - 9 Measures to prevent accidents with lifeboats
 - 10 Interpretations of the 2000 HSC Code
 - 11 Review of fast rescue boat and means of rescue requirements
 - 12 Anchoring, mooring and towing equipment
 - 13 Carriage and stowage of immersion suits
 - 14 Performance testing and approval standards for SOLAS personal life-saving appliances
 - 15 Amendments to SOLAS requirements on electrical installations
 - 16 Amendments to the DSC Code and the 1994 HSC Code
 - 17 Work programme and agenda for DE 47
 - 18 Election of Chairman and Vice-Chairman for 2004
 - 19 Any other business
 - 20 Report to the Maritime Safety Committee

**SUB-COMMITTEE ON STABILITY AND LOAD LINES AND ON FISHING VESSELS SAFETY (SLF) –
45TH SESSION**

- Opening of the session
- 1 Adoption of the agenda
- 2 Decisions of other IMO bodies
- 3 Development of the 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 fishing vessel Safety Code and Voluntary Guidelines
- 6 Review of the Intact Stability Code
- 7 Containership partially weathertight hatch covers
- 8 Large passenger ship safety
- 9 Matters related to bulk carrier safety
- 10 Revision of the model test method specified in the 1995 SOLAS Conference resolution 14
- 11 Work programme and agenda for SLF 46
- 12 Election of Chairman and Vice-Chairman for 2003
- 13 Any other business
- 14 Report to the Maritime Safety Committee

SUB-COMMITTEE ON STANDARDS OF TRAINING AND WATCHKEEPING (STW) – 34TH SESSION

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Validation of model training courses
 - 4 Follow-up action to the 1995 STCW Conference
 - 5 Unlawful practices associated with certificates of competency
 - 6 Casualty analysis
 - 7 Large passenger ship safety
 - 8 Training of crew in launching/recovering operations of fast rescue boats and means of rescue in adverse weather conditions
 - 9 Measures to enhance maritime security
 - 10 Mandatory education and training requirements for fatigue prevention, mitigation and management
 - 11 Work programme and agenda for STW 35
 - 12 Election of Chairman and Vice-Chairman for 2004
 - 13 Any other business
 - 14 Report to the Maritime Safety Committee

ANNEX 31

STATEMENT BY THE DELEGATION OF THE RUSSIAN FEDERATION

When adopting the Code for the Investigation of Marine Casualties and Incidents, at its twentieth session, the Assembly referred, among other things, to the rights and obligations of a coastal State and the flag State resulting from the provisions of Article 94 of the United Nations Convention on the Law of the Sea (UNCLOS). Paragraph 6.3 of the Code notes that, if a marine casualty or incident takes place on the high seas, the flag State is to investigate the casualty. Where the casualty is a collision involving a foreign ship, both the States are to confer with each other and agree which of them will be the lead investigating State as well as determine the best ways of co-operation on the basis of the Code. When adopting the Code, the Assembly invited all the Governments concerned to take relevant measures in order to implement it as soon as possible.

The time following the Code adoption has shown that some of the States do not strive for its rapid implementation.

On 4 August 2001, the tanker **Virgo** flying the flag of Cyprus and with a crew consisting solely of Russian citizens started on a ballasted voyage from the port of Boston (United States) and arrived, on the morning of 7 August 2001, at the port of Come-by-Chance (Canada). After a while, a representative of the maritime authorities of Canada came on board and informed the crew that, as far as he knew, the trawler **Starbound** flying the flag of the United States collided with an unknown ship and sank on the high seas approximately 139 miles off the American coast on the night between 4 and 5 August 2001. As a result of the collision, three crew members of the trawler did not manage to survive. The tanker **Virgo** was one of the ships navigating the region in question.

At present, it is difficult to say whether the tanker was involved in the collision, and if it was, whether the collision occurred through the fault of the crew of the trawler, the tanker, or both. This was to be demonstrated by the investigation to be conducted under article 94 of the UN Convention of 1982 and the IMO Code.

One of the parties, namely, the United States decided not to give itself the trouble of following the procedures approved by it at IMO or to conduct negotiations with Cyprus on the investigation procedure, or to invite Russia to participate as a substantially interested State in view of the citizenship of the trawler crew. On 7 August 2001, the representatives of the US Coast Guard arrived in Canada and actually started to investigate the incident aboard the tanker **Virgo** together with the representatives of the Ministry of Transport of Canada. Thus, the authorities of Canada and the United States ignored both the norms of international law and the above-mentioned IMO Code.

The United State authorities also needed to participate in this unlawful investigation in the territory of Canada to be able to violate the international law once more, namely, to start the prosecution of the citizens of a foreign country, i.e. the tanker crew, under criminal law for alleged delinquency on the high seas not covered by the United States jurisdiction in accordance with article II of the Convention on the High Seas, 1958 to which the United States are a party.

The methods used in this case by the maritime authorities of Canada and the United States could completely undermine the objectives highlighted when approving the Code for the Investigation of Marine Casualties and Incidents.

It appears the representatives of authorities from a third State can be invited (or received in the territory of a State) and given an opportunity to investigate an incident taking place on the high seas or in the territorial sea of another State, whereas the authorities of a substantially interested State are actually obstructed from such an opportunity.

It is the opinion of the Russian delegation that if this practice is pursued further, it would be impossible to allege that accidents are investigated consistently with law and order, and the IMO efforts for developing the Code would be in vain.
