

# THE ROYAL INSTITUTION OF NAVAL ARCHITECTS (AUSTRALIAN BRANCH)



THE TORREMOLINOS INTERNATIONAL CONVENTION

FOR THE SAFETY OF FISHING VESSELS, 1977

BY

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Introduction

The Inter-Governmental Maritime Consultative Organisation (IMCO), the United Nations Specialised Maritime Agency convened a four week conference to consider its development of an international convention for the safety of fishing vessels.

At the invitation of the Government of Spain the Conference was held in Torremolinos Spain from 7 March to 2 April 1977. On the latter date the Conference adopted for the first time in maritime history an international convention for the safety of fishing vessels. This convention is called The Torremolinos International Convention for the Safety of Fishing Vessels 1977 (1) (and in the way of these matters is likely to be referred to in short as 'TICSOFV/77').

Forty six countries participated in the Conference which was attended also by representatives of two United Nations Specialised Agencies, the Food and Agriculture Organisation (FAO) and the International Labor Organisation (ILO) and by observers from three non-Governmental Organisations.

The Australian delegation comprised Mr W.P. Crone Counsellor (Transport), Australia House, London and Mr R.J. Herd Naval Architect, Department of Transport, Melbourne.

The Final Act was signed by all countries represented. The Convention is open for signature from 1 October 1977 to 30 June 1978 and shall thereafter remain open for accession.

The International Convention together with an Annex of ten chapters containing Regulations for the Construction and Equipment of Fishing Vessels together with two Appendices forms Attachment 1 to the Final Act.

Appendix I details the Certificates to be issued under the terms of the Convention, while Appendix 2 contain a Specification for Life-saving Appliances.

Attachment 2 summarises Survival Craft and Rescue Boat Equipment.

Attachment 3 contains twelve Recommendations and Attachment 4, eleven Resolutions all adopted by the Conference.

Attachment 5 contains an understanding in respect of participation by States in the Convention and the performance of the Depositary Function.

It is the aim of this paper briefly to review the provisions of the Convention and to comment on those provisions where appropriate.

### Background to the Conference

The International Conference on the Safety of Life at Sea 1960 adopted 56 Recommendations.

Recommendation 4 invited Contracting Governments to transmit to IMCO for dissemination, information as to the extent to which they had been able to apply the provisions of the Convention to fishing vessels.

Recommendation 7 invited IMCO to initiate studies into the intact stability, inter alia, of fishing vessels, and to take account of work already carried out in this field by FAO.

IMCO's main technical body the Maritime Safety Committee set up the Sub-Committee on Subdivision and Stability in November 1960 to deal with Recommendations 6, 7 and 8 of the SOLAS 1960 Conference. The 3rd IMCO assembly in October 1963 adopted Resolution A 52(III) stating that IMCO should continue its studies on the stability of fishing vessels with all possible speed.

The Sub-Committee on Subdivision and Stability as a result, in November 1964 established a 'Panel of Experts on the Stability of Fishing Vessels' to work in co-operation with FAO experts.

In February 1966, the Maritime Safety Committee changed the status of the Panel of Experts to the 'Working Group on Stability of Fishing Vessels'. This Working Group would report directly to the Sub-Committee and continue to work in co-operation with the FAO experts.

In February 1969 the Maritime Safety Committee separated the Working Group on Stability of Fishing Vessels from the Sub-Committee on Sub-division and Stability and re-named it as the Sub-Committee on Safety of Fishing Vessels, to report directly to the Committee. It remains in existence as such.

A resolution adopted by the Committee on Conditions of Work in the Fishing Industry which was convened by the International Labour Organisation (ILO) in December 1962 recommended development of an international code dealing with navigational, operational and occupational aspects of safety of fishing vessels and fishermen. As a result ILO, FAO and IMCO agreed to collaborate in production of such a code.

It was agreed that the Code would be in two parts, Part A for shippers and crew and Part B for fishing vessel builders and owners.

The final text of Part A was adopted by a joint FAO/ILO IMCO meeting at Geneva in September 1968.

The newly formed IMCO Sub-Committee on Safety of Fishing Vessels was charged with the production of draft texts for a fishing vessel safety convention in conjunction with drafting Part B of the Code of Safety for Fishermen and Fishing Vessels.

The Sub-Committee in April 1971 in anticipation of an envisaged preparatory Conference on Safety of Fishing Vessels in 1974, invited governments to submit proposals on matters which might be included in a safety convention for fishing vessels.

In late 1971, the IMCO Assembly listed a 'Preparatory Conference to frame provisions on the safety of fishing vessels' to be held in 1975. The Sub-Committee after considering proposals from governments invited views on

- (a) the basic aims of the Convention
- (b) its scope in terms of structural requirements and control of loading
- (c) the vessels to be covered
- (d) the format of the instrument
- (e) how implementation would be applied - whether certification and surveys would be included
- (f) the manner in which reciprocity would apply, and
- (g) any other relevant matters.

In respect of (d) above, the IMCO Secretariat suggested that the format of the Convention follow the standard approach of IMCO Conventions viz.

- (a) Articles to contain contractual provisions such as general obligations by States, entry into force, amendment procedures etc,
- (b) Annexes which would contain technical provisions in general terms concerning construction, equipment and other safety provisions for fishing vessels, and
- (c) Appendices which would contain technical details such as those presently included in Part B of the Code.

The provisions of appendices might be either mandatory requirements or recommended practices. The provisions of annexes and appendices would be subject to accelerated amendment procedure in order to keep abreast of technological developments.

Meanwhile the final draft of Part B (Safety and Health Requirements for the Construction and Equipment of Fishing Vessels) of the Code (2) was agreed by IMCO in March 1973. The Second Joint FAO/ILO/IMCO meeting of Consultants in February 1974 agreed the final text of Part B and an amended text for Part A (2) to improve the wording and achieve consistency with Part B. These decisions were endorsed by the 3 organisations.

In December 1973 the IMCO Assembly agreed that the proposed Conference on Safety of Fishing Vessels should be convened in 1976.

After taking into account the views of various governments the Sub-Committee considered a first draft of the proposed Convention at its meeting in February 1974.

The Sub-Committee considered a second draft of the proposed Convention in September 1974 and a third draft in March 1975.

The IMCO Council in June 1975 having regard to the IMCO budget and work programme decided that the Conference on Safety of Fishing Vessels should be postponed to early 1977. The Conference was to last four weeks.

The Spanish Government early in 1976 invited IMCO to hold the Conference at the Palace of Congresses at Torremolinos and the period 7 March to 2 April 1977 was scheduled.

In July 1976 IMCO invited governments to be represented at the Conference and circulated the draft text of the International Convention for the Safety of Fishing Vessels 1977 (3) and related Recommendations and Resolutions for study and comment.

It is worthy of note that since IMCO came into being in 1959 and prior to the Torremolinos Conference in 1977, a number of Resolutions relating to fishing vessels had been adopted by the IMCO Assembly viz:-

- Resolution A 52(III) Intact Stability of Fishing Vessels
- A 88(IV) Intact Stability of Fishing Vessels
- A168(ES.IV) Recommendation on Intact Stability of Fishing vessels
- A207(VII) Recommendation for an Interim Simplified Criterion for Decked Fishing Vessels under 30 metres in length
- A208(VII) Recommendation on Construction of Fishing Vessels affecting the Vessels Stability and Crew Safety

A267(VIII) Code of Practice concerning the Accuracy of Stability Information for Fishing Vessels.

A268(VIII) Amendments to Recommendation on Intact Stability of Fishing Vessels Appendix V - Recommended Practice on Portable Fishhold Divisions (Resolution A168(ES.IV)).

A269(VIII) Recommendation for Skippers of Fishing Vessels on Ensuring a Vessels' Endurance in Conditions of Ice Formation.

Running parallel with the discussions in IMCO were developments relative to fishing vessel safety in the United Kingdom.

Following a number of trawler losses in 1968, a Committee of Inquiry into Trawler Safety was set up under the chairmanship of Admiral Sir Deric Holland-Martin GCB, DSO, DSC. The Committee published its final report in July 1969, <sup>(4)</sup> making recommendations on the design, construction, research, stability, survey and certification of United Kingdom fishing vessels.

These recommendations were accepted by the U.K. Government. Legislation resulted in the shape of The Fishing Vessels (Safety Provisions) Act 1970 <sup>(5)</sup> and the Fishing Vessels (Safety Provisions) Rules 1975. <sup>(6)</sup> In association with the Rules, the U.K. Department of Trade published Survey of Fishing Vessels, Instructions for the guidance of surveyors, 1975. <sup>(7)</sup> The Instructions form a comprehensive and useful adjunct to the Rules.

The background to the U.K. legislation was elaborated by Mr J.H. Cox, formerly Deputy Chief Surveyor, Department of Trade in a particularly comprehensive and informative paper. <sup>(8)</sup>

#### Attitudes to the Convention Expressed by USA and Japan

Among the comments received by IMCO following the circulation in July 1976 of the draft Convention, two governments, USA and Japan, expressed views which are worthy of note.

The U.S. <sup>(9)</sup> while regarding IMCO's efforts to improve the design parameters of fishing vessels of great value nevertheless expressed reservations about the effectiveness of the draft Convention as a proper expression of international law.

The U.S. at the time of the 1960 SOLAS Conference and since had considered that whatever safety measures were needed for fishing vessels should be provided by each country individually, taking into account:-

- (1) the extreme variety of fishing vessel design,
- (2) the maximum distance from a harbour or refuge,
- (3) the differences in weather which occur in different ocean areas, and particularly
- (4) the unique problem a fishing vessel has because it loads its cargo at sea.

There are about 15000 fishing vessels registered with the U.S. Government. The character of the U.S. fishing fleet is mainly small fishing vessels (less than 24 metres) owned by individuals or families and operated with very small crews. The notable exceptions are the tuna fleet and a few others of different designs.

The U.S. is concerned that the efforts of the Sub-Committee on Safety of Fishing Vessels had not succeeded as well as had been hoped. The U.S. feel that inability to reach a high level of specific agreement on so many items will make any such international agreement which was subject to a variety of interpretations by administrations, extremely difficult to enforce uniformly.

The U.S. accordingly indicated their willingness to join the Conference positively in the hope that the Convention produced could be useful even though they might be unable to become a party to it. In the meantime, they would continue in the Sub-Committee working towards specific agreement on those items of research presently not agreed, which would lead to increased understanding of the matters of proper design.

Japan (10) hoped that a Convention would be concluded and so finalise more than 10 years of work. However the SOLAS 1974 Convention which had recently been concluded, was the result of a gradual approach to and refinement in matters of safety. This draft Convention, Japan contended, would introduce very high standards from the beginning which could raise difficulties for countries wishing to become parties to the Convention.

For this reason Japan hoped that appropriate amendments would be made to the Convention to make the content of the Convention more practicable for and acceptable to as many countries as possible.

In particular Japan directed its thrust towards Chapter V dealing with Fire Protection, Fire Detection, Fire Extinction and Fire Fighting.

Based on the operation of many fishing vessels for many years in Japan, the level of the draft provisions was too high. The draft is adapted from the IMCO Recommendation on Cargo Ships (Resolution A 327(IX))(11) which could raise serious difficulties in its application to smaller vessels. This Recommendation has not yet been subsumed into SOLAS 1960 (12) or SOLAS 1974 (13) Conventions and amendment of its provisions into practicable and reasonable ones with subsequent successive strengthening when necessary was recommended.

In particular it was the Japanese experience that fishing vessels operating in warmer waters experienced only rare disasters at sea. Though Japanese fishing vessels range in operation over all the waters of the world, almost all fire disasters at sea had occurred in the cold region.

Accordingly Japan made 3 proposals in respect of structural fire protection:

- (1) To lower by one rank the insulation value of structural fire protection.
- (2) To make the dividing line between the larger and smaller fishing vessels 60 metres in length rather than 45 metres as proposed in the draft Convention.
- (3) To lower some of the requirements for vessels fishing only in warm waters.

### The Conference

The Conference was held at the Palacio de Congressos, Torremolinos, Malaga in Spain from Monday 7 March to Saturday 2 April 1977.

The Conference was presided over by Mr L. Mayans, Director-General of Navigation, Spain, Mr H. Bardarsson (Iceland) who is the Chairman of the IMCO Sub-Committee on Safety of Fishing Vessels was elected First Vice-President and Rapporteur in honour of his work in the Sub-Committee.

After opening in Plenary, the Conference then went into Committee for the major portion of its duration. The team of interpreters were so organised that Committees Two and Three were able to operate contemporaneously with Committees One, Four and Five, with the Drafting Committee meeting as necessary.

The Conference met in Plenary again for the last week to consider the text of the Convention as it came forward from the Drafting Committee.

Instantaneous translation was provided in English, French, Russian and Spanish. The business of the Conference proceeded smoothly, as one has come to expect of a Conference organised by IMCO.

The Conference was attended by representatives of forty-six countries with observers from ILO and FAO and from three non-government organisations.

In all about two hundred and twenty five delegates participated in the work of the Conference. Not all members of larger delegations were necessarily present throughout the Conference. The average size of delegation was about 5.

The closing ceremony and signing of the final Act of the Conference took place on Saturday morning 2 April 1977.



## The Convention

The Convention includes a preamble and 14 Articles.

A fishing vessel means any vessel used commercially for catching fish, whales, seals, walrus, or other living resources of the sea.

The Convention shall apply to sea-going fishing vessels entitled to fly the flag of a State which is a Party (i.e. a State for which the Convention has entered into Force). It should be noted that no reference is made to international voyages.

The Convention shall enter into force 12 months after the date on which not less than 15 States have either signed it without reservation as to ratification, acceptance, or approval or have deposited the requisite instruments of ratification, acceptance, approval or accession in accordance with Article 9, the aggregate of whose fleets of fishing vessels constitute not less than 50 per cent by number of the world's fleet of fishing vessels of 24 metres in length and over.

Statistics used by the Conference were provided by Lloyd's Register of Shipping. A number of countries lodged revised statistics for their particular fleets. As a result of the uncertainty as to the statistics for the world fishing fleet, the Conference adopted a Resolution (Resolution 9) recommending that IMCO take steps as early as possible to collate and maintain statistics of fishing vessels of 24 metres in length and over. The prime purpose of these statistics is to facilitate the determination of the date of coming into force of the Convention.

The procedure agreed for amendment of the Convention is generally that laid down for the SOLAS 1974 Convention which procedure has been developed with a view to bring amendments into force more speedily than is possible under that laid down in the SOLAS 1960 Convention.

The Convention shall be deposited with the Secretary-General of IMCO. It shall be established in a single copy in the English, French, Russian and Spanish languages each text being equally authentic. Official translations in the Arabic, German and Italian languages shall be prepared and deposited with the original.

## Annex

The Annex to the Convention contains the Regulations for the construction and equipment of fishing vessels, there being 154 Regulations contained in ten Chapters. The contents of each chapter will be reviewed briefly with a view to highlighting significant points.

## Chapter I - General Provisions

The provisions of the Annex apply to new fishing vessels of 24 metres in length and over, including vessels also processing their catch. The provisions of the Annex do not apply to vessels exclusively used:

- (a) for sport or recreation;
- (b) for processing fish or other living resources of the sea;
- (c) for research and training; or
- (d) as fish carriers.

A 'new vessel' is a fishing vessel for which, on or after the date of entry into force of the Convention:

- (a) the building or major conversion contract is placed; or
- (b) the building or major conversion contract has been placed before the date of entry into force of the Convention, and which is delivered three years or more after the date of such entry into force; or
- (c) in the absence of a building contract
  - (i) the keel is laid; or
  - (ii) construction identifiable with a specific vessel begins; or
  - (iii) assembly has commenced comprising at least 50 tonnes or 1 per cent of the estimated mass of all structural material whichever is the less.

An existing vessel is a fishing vessel which is not a new vessel.

Altogether fifty one definitions have been included in Regulation 2. A number of these are identical with those used in other Conventions. This generally is desirable to avoid confusion with definitions of one concept varying in different Conventions.

The draft Convention repeated definitions and diagrams for length, perpendiculars, midships etc, which are given in Part B of the Code of Safety for Fishermen and Fishing Vessels. These were first promulgated by the Maritime Safety Committee of IMCO at its twenty fourth session in September 1971 and circulated under MSC/CIRC. 111.

It was agreed to adopt instead the definitions used in the International Convention on Load Lines 1966 and to delete the diagrams which had been adopted in Part B of the Code. It was agreed to draw the attention of the Maritime Safety Committee to the different approach with a view to a future amendment to Part B.

Fishing vessels are to be subject to surveys as follows:

- (a) An initial survey before the vessel is put into service or before the certificate required is issued for the first time. The survey shall include a complete survey of the vessels structure, stability, machinery, arrangements and material, including the outside of the vessel's hull and the inside and outside of the boilers and equipment covered by the Convention. The survey will establish compliance with the requirements of the Annex and that the workmanship of all parts of the vessel and its equipment is satisfactory.
- (b) periodical surveys at intervals as specified:
  - (i) four years for structure and machinery with the possibility of one year's extension subject to satisfactory internal and external examination;
  - (ii) two years for equipment specified in various Chapters of the Annex;
  - (iii) one year in the case of radio installations and radio direction finder.
- (c) intermediate surveys in the case of structure and machinery at intervals specified by the Administration.

After a survey no significant change shall be made to the structure, equipment, fittings, arrangements, or material covered by the survey without the sanction of the Administration except the direct replacement of such equipment and fittings.

After satisfactory survey a vessel shall be issued with an International Fishing Vessel Safety Certificate. Where appropriate, in addition, an International Fishing Vessel Exemption Certificate shall be issued.

The International Fishing Vessel Safety Certificate shall be issued for a period of not more than four years and shall not be extended for a period in excess of one year. An International Fishing Vessel Exemption Certificate shall not be valid for longer than the period of the International Fishing Vessel Safety Certificate.

A certificate shall cease to be valid:

- (a) if major alterations take place without the sanction of the Administration;
- (b) if periodical and intermediate surveys are not carried out in accordance with the Regulations;
- (c) upon transfer to the flag of another State.

Provision for exemptions are made:

- 1. for vessels having features of a novel kind;
- 2. in respect of certain aspects of Radiotelegraphy and Radiotelephony and shipborne Navigational Equipment;
- 3. where an Administration considers the application of a provision of provisions to a vessel fishing near its coast to be unreasonable or impracticable.

## Chapter II - Construction, Watertight Integrity and Equipment

Generally the strength and construction of the hull, superstructures, deckhouses, machinery casings, companionways and other structures and equipment shall be able to withstand all foreseeable service conditions to the satisfaction of the Administration. Ice strengthening should be incorporated where appropriate.

Vessels built of materials other than wood should have a collision bulkhead and at least watertight bulkheads bounding the machinery space. In vessels constructed of wood such bulkheads which shall be far as practicable be watertight shall also be fitted. The watertight bulkheads shall be extended to the working deck which is generally the lowest complete deck above the deepest operating waterline from which fishing is undertaken.

In vessels of 75 metres length and over, a watertight double bottom shall be fitted, as far as practicable, between the collision bulkhead and the after peak bulkhead.

The number of openings in watertight bulkheads shall be minimal and shall be fitted with closing appliances. In vessels below 45 metres in length watertight doors may be of the hinged type, operated locally from each side of the door, normally kept closed at sea and with a notice to this effect attached to each side of the door.

In vessels of 45 metres in length and over, watertight doors shall be of the sliding type where they are to be open at sea and where their sills are below the deepest operating waterline, and in the lower part of a machinery space where there is access from it to a shaft tunnel. Otherwise watertight doors may be of the hinged type.

Provision is made for closing devices for openings through which water can enter the vessel e.g. all access openings in bulkheads of enclosed superstructures and other outer structures through which water could enter and endanger the vessel shall be fitted with weathertight doors with sills generally 600 mm on the working deck and 300 mm on the superstructure deck. Provision is made for reduction to not less than 380 and 150 mm respectively on approval of the Administration except for openings give direct access to machinery spaces.

Hatchway coamings are to be at least 600 mm on exposed parts of the working deck and at least 300 mm on the superstructure deck. Provisions for wooden hatchway covers are similar to those for wooden covers in the Load Lines Convention, except that the minimum thickness is 40 mm.

Coaming heights for hatchway covers other than those of wood are the same, but with possibility of relaxation where it is safe to do so. The strength provisions, loadings, deflections etc, are similar to those in the Load Lines Convention.

Other deck openings, including flush deck scuttles of the screw, bayonet or equivalent type, manholes and companionways are also provided for. The essential feature being sought in closure of all openings is weathertightness.

Ventilator and air pipe requirements are based on those of the Load Lines Convention, except that relaxations are made for ventilator heights for vessels of less than 45 metres in length.

'Sounding devices' are to be fitted with specific provisions where these take the form of sounding pipes.

Provisions for sidescuttles, windows, inlets, discharges and freeing ports are similar to those of the Load Lines Convention.

The US proposal that formulae similar to those used by the U.K. in The Fishing Vessel (Safety Provisions) Rules 1975 and described by Cox was not supported and the Load Lines Convention approach was retained.

A general provision for anchor and mooring equipment based on performance was included. Reference is made to Annex II, Recommended Practice for Anchor and Mooring Equipment, Part B of the Code of Safety for Fishermen and Fishing Vessels.

### Chapter III - Stability and Associated Seaworthiness

The question of whether freeboards and load line marks should apply to fishing as well as other vessels had occupied the debates of the IMCO Sub-Committee on Safety of Fishing Vessels and its predecessors for over ten years.

It was decided at an early date that the minimum freeboard to be recommended for fishing vessels should:

- (a) ensure compliance with the recommended intact stability standards;
- (b) provide a reasonable degree of safety for men required to work on deck during fishing operations; and
- (c) provide a reasonable degree of safety for the vessel in respect of shipped and trapped water on deck.

It was noted that there was a divergence of opinion in experience in regard to low freeboards and it was considered necessary to have a basis of comparison between vessels operating successfully with small freeboards and those with large ones. (Fishing vessels in some countries are permitted to operate with negative, zero or very small freeboards). It was decided to study a theory of a criterion of survival taking into account the influence of water trapped on deck as a possible approach to resolving the divergence of opinion. Concern was expressed as to the value of an assigned load line mark on fishing vessels which load at sea.

After considerable study of theoretical analyses and comparative model experiments and full scale analyses of vessels already in service, the Sub-Committee reaffirmed the objectives of its study of freeboard, namely:

- (a) compatibility with the IMCO stability criteria;
- (b) reasonable degree of safety for men required to work on deck; and
- (c) reasonable degree of safety for the vessel in respect of preventing entry of water into enclosed spaces having regard to the closing appliances provided and to the influence of water being shipped and trapped on deck.

The Sub-Committee concluded that these objectives could be achieved by the approaches set out below taken separately or in combination:

- (d) the freeboard should be primarily governed by the stability criteria referred to in (a) with any additions or modifications made in order to achieve the general objectives already defined and accepted which might not involve any precise freeboard determination;

- (e) a system of freeboard determination based on the direct application of principles (b) and (c) in association with compliance with principle (a). This method should be developed in relation to a vessel of standard geometrical characteristics i.e. a typical fishing vessel, and a means of correcting the freeboard by evaluating corrections for any of the physical parameters not fitted to the vessel;
- (f) the freeboard should be primarily governed by compliance with the stability criteria of (a) in conjunction with the flooding of the fish holds when the vessel should have a sufficient margin of stability to ensure survival.

At the Sixteenth session of the Sub-Committee in September 1974, an ad hoc group examined the question and based its study on approach (d) above.

The group decided that freeboard could be accommodated within the stability criteria, that regard should be had to the worst condition of loading, ice accretion, bow height, severe wind forces, effect of water on deck, severe accelerations and deck wetness, and no assignment or freeboard marks were necessary.

Standards in respect of acceleration forces, ice accretion, bow height, severe wind forces, water on deck were included in the Regulations.

The eighteenth session of the Sub-Committee met in July 1975 to consider the stability provisions of the draft Convention.

The Sub-Committee decided that there should not be a separate chapter on freeboard and that the stability criteria should be those already promulgated by IMCO (14) together with general provisions concerning bow height and the need to maintain stability under conditions of severe wind and rolling with water on deck.

Recommendations relating to bow height, severe wind forces and rolling and water on deck should be included in separate appendices.

The USSR submitted a proposal for subdivision and damage stability requirements for vessels of 100 metres and above.

The draft requirements were finalised at the nineteenth session in September-October 1975, but as the Regulations relating to bow height etc were basic, accompanied by general guidance notes in the appendices, the way was left open for further study of the approaches contained in those appendices.

As a consequence of these Sub-Committee discussions, a number of decisions of principle were made by Committee. Two at the Conference.

The Committee decided to retain the Guidances dealing with the effects of severe wind and rolling in associated sea conditions, the effect of water on deck, ice accretion, calculation of bow height, subdivision and stability calculations and to continue work on these topics with a view to formulating definite requirements. In the meantime to indicate that the contents of the Guidances are not finally agreed the use of the phrase 'Guidance on a method of ...' would be used.

Japan proposed a major revision of the stability criteria to incorporate the influences of severe wind forces and rolling in the associated sea conditions and sea states in the area in which the vessel will operate. This as was to be expected, generated lengthy discussions. It was agreed not to amend the requirement for the present because of the previously mentioned uncertainties and continuing research.

The draft text for flooding of fish holds, allowance for external forces imposed by particular fishing methods, severe wind and rolling and water on deck was adopted.

The statement of operating conditions for which stability data is to be provided and the allowances to be included in those calculations included provision for the vessel operating in the most unfavourable condition. This provision was expanded to include operating conditions which produce the lowest values of stability criteria.

The difficulty of providing for all circumstances was recognised; Denmark noting in passing that a Danish fishing vessel had capsized when in light condition without oil fuel in the double bottom.

Suitable stability data is to be supplied to enable the skipper to assess with ease and certainty the stability of the vessel under various operating conditions, with warnings to be included for operating conditions which could adversely affect stability or trim.

The data is to be approved and the ship's copy is to be sighted at periodical surveys and checked for suitability for the vessel's then operating conditions. Alterations to the vessel's structure, machinery, equipment etc., may involve new data.

A maximum permissible operating draught is to be approved by the Administration. At this draught and in associated operating conditions the vessel shall meet all criteria.

A reference is to be made in the Certificate to the stability data for checking the applicability of the maximum operating draught(s).

The subdivision and damage stability requirements apply to vessels of 100 metres in length and over, where the total number of persons carried is 100 or more.



## Chapter IV - Machinery and Electrical Installations

The requirements of this Chapter generally follow those of the SOLAS 1974 Convention (13) and the revision of the passenger and cargo ship machinery requirements subsequently developed by IMCO, Resolution A.327(IX)(15).

The Chapter opens with general safety provisions for machinery installations, electrical installation and periodically unattended machinery spaces. The distinction between propulsion and industrial equipment and machinery is made. The second part of the chapter covers detailed provisions for machinery installations, the third - electrical installations and the fourth - periodically unattended machinery spaces.

A proposal to insert specific limiting noise levels not to be exceeded in machinery spaces, after considerable discussion on standards, was not accepted and the general requirement for noise reduction contained in the draft text was retained.

Relaxations of steering gear angles for Aktiv and other special types of rudder were not adopted, it being felt that the exemption and equivalent provisions were sufficient to meet any special case which could arise.

The Conference requested IMCO to encourage the development of refrigerants which were neither toxic, flammable or both. A proposal to ban such refrigerants was not accepted, since no delegation was aware of a refrigerant which would meet this requirement and yet perform its task of preservation efficiently.

A number of delegations expressed the view that the dynamic requirements for pitch and roll for main propulsion machinery and auxiliary machinery and for the emergency generator and its prime mover should be identical. The problems of manufacturers having to meet two specifications was stressed. The Conference took the view that the emergency installation should be capable of operating under more severe conditions than the main installation, and therefore retained the differing standards of performance.

For vessels having periodically unattended machinery spaces the Committee laid great stress on safety against fire prevention, detection and extinction as well as protection against flooding. Size limits were introduced where it was deemed inappropriate or impractical to apply all requirements to the smaller as well as large vessels. A number of the requirements apply only to vessels of 75 metres in length and over.

## Chapter V - Fire Protection, Fire Detection, Fire Extinction and Fire Fighting

The draft Convention (3) which formed the main working document of the Conference divided the fishing vessels of 24 metres in length and over into two categories

- (a) those 45 metres in length and over, and
- (b) those 24 metres in length and over but less than 45 metres.

This stemmed from the intention of the Sub-Committee that fishing vessels of 500 tons gross and over should have the same standard of fire protection as cargo vessels of the same size. (It will be recalled that the cargo ship structural fire protection requirements in SOLAS 60 and SOLAS 74 apply to vessels of 4000 tons gross and over, but that Resolution A.327(IX) (11) applies to cargo vessels of 500 tons gross and over).

Since length is the criterion of size being used in this Convention, a length - tonnage equivalence had to be determined. In its wisdom after studying available statistics, the Sub-Committee agreed that 45 metres was equivalent to 500 tons gross.

When the point was raised in the Conference, several proposals were in hand to vary the level of equivalence. USA and Japan wanted to use 60 metres while other countries suggested figures, based on analyses of fleet statistics of 50, 52.5 and 55 metres.

The discussion was protracted and no compromise was evident. For the only time in the working of Committees Two and Three (and I believe of the other Committees) a vote was taken. The outcome was selection of 55 metres. This length survived an appeal on procedural grounds.

Associated with this question of equivalence of length and tonnage was the acceptance of hull materials other than steel. Hulls made of combustible materials will be accepted subject to appropriate safeguards for vessels of less than 55 metres in length.

The proposals by Japan to lower the level of fire rating by one step were not supported. The Committee decided to retain the draft which was based on the philosophy that cargo and fishing vessels of the same size should meet the same standards of fire protection.

Though Japan produced statistics in support of the claim that fires in warm water fishing vessels were few, the proposal to lower standards for warm water vessels likewise was not supported.

The third Japanese proposal to lift the level of 45 metres to 60 metres was also not supported, 55 metres being selected as stated earlier.

Methods IF, IIF and IIIF as adopted in Resolution A.327(IX) for cargo ships have been adopted as has the tabular presentation of fire integrity of bulkheads and of decks separating adjacent spaces for vessels of 55 metres length and over. The integrity of decks and bulkheads in vessels of less than 55 metres in length is not presented in tabular form. In this size range of vessels, special attention has been paid to escapes and alarms.

The discussions on fire protection details were lengthy and covered a multitude of details, but generally the Committee felt that Resolution A.327(IX) should be followed, but with particular provisions where the nature of the employment of the vessel warranted.

## Chapter VI - Protection of the Crew

This Chapter includes general provisions for crew safety, and safety requirements for deck openings, bulwarks, rails and guards, stairways and ladders.

Generally these requirements are based on load lines conditions of assignment and introduce no new concepts.

## Chapter VII - Life-saving Appliances

There was considerable discussion on the philosophy of carriage of life-saving appliances on the larger vessels, i.e. of 75 metres in length and over. Generally the requirements are based on provision of capacity for 200% crew. All vessels shall be provided with at least two survival craft.

Additional categories of requirement are given for vessels less than 75 metres in length but of 45 metres in length and over and also for vessels of less than 45 metres in length.

Specifications for marking of survival craft, construction and capacity of lifeboats, of liferafts and of rescue boats are included in the Chapter. Equipment for survival craft and rescue boats is detailed in Appendix 2.

Detailed requirements are given for the availability and stowage of survival craft and rescue boats, and for embarkation into survival craft.

Lif jackets, lifebuoys, line throwing appliances, distress signals, portable radio equipment, radiotelegraph installations and searchlights in motor lifeboats and retro-reflective tapes on life-saving appliances are also provided for.

The life-saving requirements were developed on the basis of Chapter III of the SOLAS Convention.

## Chapter VIII - Emergency Procedures, Musters and Drills

Requirements for muster lists and abandon ship procedures, for practice musters and drills, and for training in emergency procedures are detailed. These have regard for the arrangements of fishing vessels with some size limitations as thought necessary.

## Chapter IX - Radiotelegraphy and Radiotelephony

Unless expressly provided otherwise, this Chapter applies to both new and existing vessels. However for existing vessels, an Administration may defer implementation of the requirements for a period not exceeding 6 years from the date of entry into force of the Convention.

This is the only part of the Convention which expressly applies to existing vessels.

The requirements are related to those contained in the SOLAS Convention with amendments.

Chapter X - Shipborne Navigational Equipment

These requirements are based on Chapter V of the SOLAS Convention but with some additional equipment. Provision is made for exemptions of any vessel where the Administration considers that the nature of the voyage or the vessel's proximity to land, does not warrant such requirements.

Requirements for compasses, depth sounding equipment, radar equipment, nautical instruments and publications, signalling equipment, direction finders and speed and distance indicators are specified.

#### ATTACHMENT 1

This Attachment to the Final Act comprised the Torremolinos International Convention for the Safety of Fishing Vessels 1977 which was adopted by the Conference on 2 April 1977.

#### ATTACHMENT 2

The Attachment provides a tabular summary of survival craft and rescue boat equipment (section 6, Appendix 2 of the Annex to the Convention). Lifeboats both rigid and inflated, liferafts, and rescue boats both rigid and inflatable are provided for.

### ATTACHMENT 3

The Attachment contains the text of 12 Recommendations by the Conference as adopted by Plenary.

1. Guidance on a Method of Calculation of the Effect of Severe Wind and Rolling in Associated Sea Conditions (Regulation 31).

This method is that quoted as method II by the U.K. Department of Trade (1)(7).

2. Guidance on a Method of Calculation of the Effect of Water on Deck (Regulation 32).

This method is that quoted by the U.K. Department of Trade (1)(7).

3. Guidance Relating to the Accretion (Regulation 34).

The icing area which would affect Australian vessels is that south of latitude 60°S. This is not believed to be of significance to the Australian industry at present.

4. Guidance on Stability Information (Regulation 36).

This lists matters and information which should be included in the Stability Information provided to the ship. Inter alia, such matters as the following are included -

- rolling tests
- GZ calculations
- Simplified information
- tank operation
- anti-roll devices
- permanent ballast
- for vessels to which Regulations to 40 (subdivision and Damage Stability) applies necessary operating details.

5. Guidance on a Method of Calculation of Bow Height (Regulation 38).

Details of a method of calculation together with sheer, bulwarks, trim, wave height, etc., are given.

6. Guidance on Subdivision and Damage Stability Calculations (Regulation 40).

Methods of calculation - applicable only to vessels of 100 metres in length and over, where the total number of persons carried is 100 or more.

7. Guidance for Precautions Against Freezing of Fire Mains (Part A and Part B of Chapter V).

Normally not a problem in Australian vessels.

8. Guidance Concerning The Use of Certain Plastic Materials (Regulations 72 and 92).

Draws attention to the flammability of plastic materials and their ability to produce excessive amounts of smoke and other toxic products.

9. Guidance on a Method of Calculation of the Minimum Distance from the Deepest Operating Waterline to the Lowest Point of the Top of the Bulwark or the Edge of the Working Deck (Regulation 108).

In the absence of any assigned freeboard for fishing vessels, it is still necessary to safeguard the crew by ensuring an adequate height of working platform above the sea. This Guidance gives a suggested method of determination where no national practice exists.

Account is taken of significant wave heights, probability of shipping water on deck, vessel characteristics etc.

10. Guidance for Determining the Minimum Normal Range of Transmitters (Regulations 137, 140, 143).

This Guidance covers radiotelegraph installations, radio - telegraph installations in motor lifeboats and radiotelephone installations.

11. Guidance for Determining the Electrical Load of the Reserve Source of Energy of Radio Installations (Regulation 143(9)(b)).

A formula is suggested for use in the determination.

12. Guidance On Transmitter Radio Frequency Power and Receiver Sensibility of VHF Radiotelephone Installations (Regulation 144(3)).

Basic assumptions as to dimensions, power, etc., are given.

#### ATTACHMENT 4

The Attachment contains the texts of 10 Resolutions by the Conference as adopted by Plenary.

1. Recommendation on Requirements for Fishing Vessels of Novel Design.

Because such vessels may not fall within the ambit of the Convention in all respects, the Organisation is recommended to study the question with a view to formulating appropriate requirements.

2. Recommendation on Further Improvement of Stability Provisions for Fishing Vessels.

The Conference recognised the incompleteness and tentative nature of some of the stability data and recognizing that IMCO is currently carrying out work on the development of appropriate criteria for all types of ship including fishing vessels, recommends continuance of the work with a view to incorporation of detailed standards into the Convention.

3. Recommendation Concerning the Development of Refrigerants for Fishing Vessels.

The Conference recommended that IMCO encourage the development of safe refrigerants with a view to the ultimate exclusion of refrigerants which are toxic or flammable or both.

4. Recommendation on International Shore Connection In Fishing Ports.

The Conference recommended that since certain vessels would be required to have an international shore connection on board, parties to the Convention should request port authorities to provide appropriate arrangements on shore.

5. Recommendation on Life-saving Appliances.

The Conference having in mind that IMCO is reviewing Chapter III of SOLAS 1974 (life saving appliances) recommends that when this work is completed the Organisation should review Chapter VII and Appendix 2 of TICSOFV 77 and align it with the revised Chapter III so far as is practicable.



6. Recommendation Concerning the Use of High Frequency Maritime Mobile Radio Telephone Bands for Safety Purposes.

The Conference having regard to current practices in the use of radio at sea recommended parties to require their distant water fishing vessels to be provided with radiotelephone equipment capable of transmission and reception, not only in the medium frequency band but also in the high frequency maritime mobile radiotelephone bands, using single sideband emissions as required by the Radio Regulations, as defined in Regulation 128(1) of the Convention.

7. Recommendation on the Application of Radio Requirements to Existing Fishing Vessels.

The Conference in view of the maximum delay of 6 years from the date of coming into force of the Convention during which existing vessels are to have their radio equipment in line with Chapter IX of the Convention, recommended to parties that steps should be taken to achieve this within the earliest practicable time.

8. Recommendation on Training and Certification of Crews of Fishing Vessels.

The Conference invited IMCO to extend its consideration of the problem of training and certificate of crews of fishing vessels in cooperation with ILO and FAO.

9. Recommendation Concerning the Coordination of Collation of Statistical Data in Relation to Fishing Vessels.

The Conference invited IMCO to coordinate as early as possible, the collation and maintenance of statistical data of fishing vessels of 24 metres in length and over to facilitate the coming into force of the Convention. The Conference also invited governments to provide statistics based on the dimensions of fishing vessels as defined in the Convention to the Organisation.

10. Recommendation Concerning the Development of Safety Standards For Decked Fishing Vessels of less than 24 metres in Length.

The Conference recommended that as development of safety standards for decked fishing vessels of less than 24 metres in length is desirable, the Organisation should continue to develop safety standards for design, construction and equipment of such fishing vessels with a view to promoting the safety of these vessels and their crews.

The Conference was conscious that the vast majority of fishing vessels throughout the world are less than 24 metres in length.

11. Appreciation to the Government of Spain.

The Conference expressed its gratitude to the Government and people of Spain for their contribution to the success of the conference and in grateful recognition designated the Convention as the TORREMOLINOS INTERNATIONAL CONVENTION ON THE SAFETY OF FISHING VESSELS 1977.

## ATTACHMENT 5

This Attachment contains the text of the understanding in relation to participation of States in the Convention as adopted by Plenary.

The Convention for which the Secretary-General of IMCO will act as depositary is open for signature by all States. The Conference assumed that in carrying out his function the Secretary-General would follow the practice of the General Assembly of the United Nations in respect of implementation, seeking guidance from the IMCO Assembly as is necessary.

## REFERENCES

1. The Torremolinos International Convention for the Safety of Fishing Vessels 1977.
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3. International Conference on Safety of Fishing Vessels 1977, Draft International Convention for the Safety of Fishing Vessels 1977 and related Recommendations and Resolutions, 14 July 1976, Document SFV/CONF/4.
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5. Fishing Vessels (Safety Provisions) Act 1970.
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11. IMCO Resolution A.327(IX), 12 November 1975. Recommendation Concerning Fire Safety Requirements for Cargo Ships.
12. International Convention for the Safety of Life at Sea 1960 London.
13. International Convention for the Safety of Life at Sea 1974, London.
14. IMCO Resolution A.168(IV), Recommendations on Intact Stability of Fishing Vessels.
15. IMCO Resolution A.325(IX), 12 December 1975, Recommendation Concerning Regulations for Machinery and Electrical Installations in Passenger and Cargo Ships.