INTERNATIONAL MARITIME ORGANIZATION

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COMPREHENSIVE REVIEW OF THE 1995 STCW-F CONVENTION

Report of the Working Group

General

1 The Working Group on the Comprehensive Review of the 1995 STCW-F Convention, chaired by Mr. Ari Gudmundsson (PEW), met from 6 to 9 February 2023.

2 The Group was attended by delegations from the following Member States:

ALGERIA
ANGOLA
ARGENTINA
BAHAMAS
CANADA
CHINA
DENMARK
DOMINICA
EGYPT
FRANCE
GERMANY
ICELAND
INDIA
INDONESIA
IRAN (ISLAMIC REPUBLIC OF)
IRELAND
JAPAN
KENYA
LIBERIA
MALAYSIA
MARSHALL ISLANDS
MOROCCO
NETHERLANDS
NEW ZEALAND
NIGERIA
NORWAY
PANAMA
PAPUA NEW GUINEA
PHILIPPINES
POLAND
PORTUGAL
REPUBLIC OF KOREA
RUSSIAN FEDERATION
SAUDI ARABIA
SOUTH AFRICA
SPAIN
SWEDEN
THAILAND
TÜRKİYE
UNITED ARAB EMIRATES
UNITED KINGDOM
UNITED STATES

MARPOL AT 50
OUR COMMITMENT GOES ON

the following Associate Member of IMO:

FAROES

observers from the following intergovernmental organizations:

EUROPEAN COMMISSION (EC)
LEAGUE OF ARAB STATES (LAS)

and by observers from the following non-governmental organizations in consultative status:

INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)
THE NAUTICAL INSTITUTE (NI)
THE PEW CHARITABLE TRUSTS (PEW)

Terms of reference

3 Taking into account the comments made and decisions taken in plenary, the Working Group was instructed to:

.1 consider and finalize the revision of the 1995 STCW-F Convention and the draft new Code, including any consequential amendments emanating from the GMDSS modernization, based on annexes 1 and 2 to document HTW 9/WP.7, respectively, taking into account documents HTW 9/8 and HTW 9/8/1;

.2 consider and finalize the draft guidelines on the medical examination of fishing vessel personnel, based on annex 3 to document HTW 9/WP.7, with a view to referring them to the Joint ILO/IMO Working Group; and

.3 submit a written report by Thursday, 9 February 2023.

Revision of the STCW-F Convention and the development of the draft new STCW-F Code

4 As instructed by the Sub-Committee, the Group considered draft revisions to the 1995 STCW-F Convention and development of the draft new Code, based on annexes 1 and 2 to document HTW 9/WP.7, respectively, taking into account documents HTW 9/8 and HTW 9/8/1, as well as the comments made and decisions taken in plenary, and took actions as indicated in paragraphs 5 to 20.

Consequential modifications emanating from the GMDSS modernization

5 The Group considered the draft modifications recommended by the Secretariat in document HTW 9/WP.7, annexes 1 and 2, concerning the consequential modifications emanating from the GMDSS modernization, and agreed to their inclusion into the draft revision of the Convention and the draft new Code.

6 In considering the above, the Group also had an in-depth discussion concerning the use of the term "GMDSS" in the context of the 1995 STCW-F Convention as well as the draft new Code.

7 During the ensuing discussion, the following views were expressed:

.1 the term GMDSS was not defined in the 2012 Cape Town Agreement and the 1995 STCW-F Convention;

.2 providing the definition of "GMDSS" in regulation I/1 of the 1995 STCW-F Convention was not desirable as it would include a reference to SOLAS chapter IV, which did not apply to fishing vessels, and it would not be in line with the structure of the 1978 STCW Convention which did not include such definition in regulation I/1;

.3 inclusion of any reference to chapter IV of the SOLAS Convention within the 1995 STCW-F Convention would be incorrect from the legal point of view;

.4 coexistence of the current definition of "radio operator" and the draft new definition of "GMDSS radio operator" might potentially cause confusion as both definitions, directly or indirectly, referred to the ITU Radio Regulations with respect to radio operator's certificates;

.5 this matter could be revisited and addressed during the anticipated comprehensive revision of the 2012 Cape Town Agreement which might happen after its entry into force;

.6 the Secretariat might be invited to provide advice to MSC 107 on the legal aspects of using the term "GMDSS" in the context of the 1995 STCW-F Convention; and

7 SOLAS chapter IV could be amended in the future to expand its application to also fishing vessels.

8 After discussion, the Group, having not reached a consensus on the matter, agreed to retain the term "GMDSS" in the 1995 STCW-F Convention and the draft new Code.

9 In this regard, the Group agreed to request the Sub-Committee to invite interested Member States and international organizations to submit related proposals to MSC 107 and also invite the Secretariat to provide advice to MSC 107 on the legal aspects of using the term "GMDSS" in the context of the 1995 STCW-F Convention, for consideration by the Committee.

Draft section B-I/12 of the draft new STCW-F Code

10 The Group, having considered the draft new section B-I/12 on guidance regarding medical standards (HTW 9/8, annex 2), agreed to incorporate it into part B of the draft new Code.

11 While considering the above, the Group identified that part B of the draft new Code contained neither an introduction text nor provisions for sections B-I/1 to B-I/11. In this regard, the Group prepared a new introduction section, using the text in the corresponding section of the STCW Code as the basis, and developed relevant text for sections B-I/1 to B-I/11, advising that no provisions were available.

Proposals for editorial improvements and addressing inconsistencies

12 The Group considered the proposals in document HTW 9/8/1, providing editorial improvements and addressing some of the identified inconsistencies in the 1995 STCW-F Convention and the draft new Code.

13 The Group, having agreed with the proposed improvements in general, prepared the corresponding draft amendments to the relevant regulations of the 1995 STCW-F Convention and also updated the relevant sections of the draft new Code.

Other improvements and modifications

14 The Group reviewed the draft revision of the 1995 STCW-F Convention and the draft new Code and applied necessary editorial modifications to ensure consistent use of the terminology (i.e. "fishing vessel" and "fishing vessel personnel") throughout both instruments. In addition, references to other conventions and instruments have been updated and harmonized.

15 The Group left references to the "guidelines on the medical examination of fishing vessel personnel" in square brackets in section A-I/12 (paragraphs 1 and 5) and section B-I/12 (paragraph 2) of the draft new STCW-F Code, awaiting approval of the guidelines by the Committee (i.e. MSC 108).

16 In reviewing the draft new STCW-F Code, the Group agreed to delete the word "security", which was in square brackets, from part A of the draft new Code, in particular the tables therein, based on the understanding that fishing vessels were not subject to provisions of the ISPS Code. The Group also noted that relevant guidance on training of skippers, officers and engineer officers on how to prepare and respond against piracy and armed robbery had not been developed yet and no related knowledge, understanding or proficiency requirements were included in the tables concerned.

17 On this matter, one delegation noted that the removal of reference to security in the draft new Code may pose a challenge, noting that there were competence requirements in the draft new Code with respect to illegal, unreported and unregulated (IUU) fishing, taking also into account the connection of this matter to the *Guidelines for the prevention and suppression of the smuggling of wildlife on ships engaged in international maritime traffic* (FAL.5/Circ.50) among other relevant international instruments.

Development of watchkeeping provisions under the draft new Code

18 The Group recalled the views expressed at HTW 8 (HTW 8/16, paragraph 8.35) with regard to the lack of relevant provisions under part A, chapter IV (Watchkeeping) of the draft new Code, despite having the watchkeeping provisions in the tables of the draft Code and explored ways to address this issue in the absence of a written proposal to the Sub-Committee.

19 During the ensuing discussion, the following views were expressed:

.1 the title of the existing regulation IV/1 of the 1995 STCW-F Convention refers to the navigational watch only, whereas radio watchkeeping was also covered by the regulation along with the proposed draft text for engineering watchkeeping; and

.2 it would be preferable to align the structure of chapter IV of the 1995 STCW-F Convention with chapter VIII (Watchkeeping) of the 1978 STCW Convention and the STCW Code.

20 After discussion, the Group agreed to follow the structure in chapter VIII of the 1978 STCW Convention and the Code with respect to the provisions for watchkeeping and prepared consequential draft modifications to chapter IV of the 1995 STCW-F Convention and part A, chapter IV of the draft new Code, without amending the substance of the provisions but aligning the text, where necessary, with the new structure.

Conclusion

21 Based on the foregoing, the Group finalized the draft revision of the 1995 STCW-F Convention and the development of the draft new STCW-F Code, as set out in annexes 1 and 2, respectively.

22 The Group invited the Sub-Committee to consider authorizing the Secretariat, when finalizing the annexes in the report of the Sub-Committee, to effect any minor editorial corrections to the draft revision of the 1995 STCW-F Convention and the draft new STCW-F Code that might be identified.

Draft guidelines on the medical examination of fishing vessel personnel

23 As instructed by the Sub-Committee, the Group considered document HTW 9/8, annex 1, containing the draft guidelines on the medical examination of fishing vessel personnel, which had been developed by modifying the *Guidelines on the medical examination of seafarers* (STCW.7/Circ.19/Rev.1).

24 In considering the draft guidelines, the Group applied editorial modifications and improvements to the draft text, mainly to align the terminology with the 1995 STCW-F Convention.

25 The Group was of the view that it would be more appropriate if the preface of the draft guidelines was finalized by the Joint ILO/IMO Working Group on the Medical Examination of Fishing Vessel Personnel, thus left the relevant text in square brackets.

26 Regarding appendix H of the draft guidelines, the majority of the delegations who spoke suggested deleting the extract of article 31 of the ILO Work in Fishing Convention, 2007 (No.188) due to its limited relevance to the scope of the draft guidelines, while a minority preferred to retain it. After some discussion, the Group agreed to delete article 31 and decided to leave the rest of the appendix in square brackets for further consideration by the Joint ILO/IMO Working Group.

27 Likewise, the Group had diverging views with regard to the need for inclusion of appendix K in the draft guidelines, noting that the International Maritime Health Association (IMHA) was developing a related module for additional training of doctors who were already approved to perform seafarers' medicals. The majority of the Group was of the opinion that the whole text should be removed; however, after discussion, the Group agreed to leave this appendix in square brackets for further consideration by the Joint ILO/IMO Working Group. Nevertheless, the Group reviewed and updated the appendix, in particular the texts that were in square brackets.

28 The majority of the Group was of the opinion that the whole of appendix L should be removed from the draft guidelines, noting that the systematic monitoring of the health status of fishing vessel personnel was not within the scope of the draft guidelines. However, after discussion, the Group agreed to leave this appendix in square brackets for further consideration by the Joint ILO/IMO Working Group.

29 The draft MSC circular on guidelines on the medical examination of fishing vessel personnel, as modified by the Group, is set out in annex 3.

30 Based on the understanding that the draft guidelines would be issued as an MSC circular after their approval by the Committee, the Group prepared a draft MSC circular for further consideration and finalization, together with the draft guidelines, by the Joint ILO/IMO Working Group on the Medical Examination of Fishing Vessel Personnel, which was expected to meet in the first quarter of 2024.

31 In this context, the Group agreed to invite the Sub-Committee to authorize the Joint ILO/IMO Working Group on the Medical Examination of Fishing Vessel Personnel to finalize the draft guidelines, taking into account the remaining work (e.g. text left in square brackets and the possible replacement of the term "fishing vessel personnel" with "fisher" based on the outcome of the consideration by MSC 107) and submit them to MSC 108 for approval.

Action requested of the Sub-Committee

32 The Sub-Committee is invited to approve the report in general, and in particular to:

.1 note the progress made by the Group on finalization of the comprehensive revision of the 1995 STCW-F Convention and development of the draft new STCW-F Code (paragraphs 4 to 20);

.2 note the discussion concerning the use of the term "GMDSS" in the context of the 1995 STCW-F Convention (paragraphs 6 to 8);

.3 in connection with the above, invite (paragraph 9):

.1 interested Member States and international organizations to submit related proposals to MSC 107; and

.2 the Secretariat to provide advice to MSC 107 on the legal aspects of using the term "GMDSS" in the context of the 1995 STCW-F Convention;

.4 agree to the comprehensive revision of the 1995 STCW-F Convention, for submission to MSC 107, along with the associated draft MSC resolution to be prepared by the Secretariat, for approval, with a view to subsequent adoption at MSC 108 (paragraph 21 and annex 1);

.5 agree to the draft new Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) Code, for submission to MSC 107, along with the associated draft MSC resolution to be prepared by the Secretariat, for approval, with a view to subsequent adoption at MSC 108, in conjunction with the related revision of the 1995 STCW-F Convention (paragraph 21 and annex 2);

.6 authorize the Secretariat, when finalizing the annexes in the report of the Sub-Committee, to effect any minor editorial corrections to the draft revision of the 1995 STCW-F Convention and the draft new STCW-F Code that might be identified (paragraph 22);

.7 note the progress made by the Group on the finalization of the draft guidelines on the medical examination of fishing vessel personnel (paragraphs 23 to 29, and annex 3); and

.8 in connection with the above, authorize the Joint ILO/IMO Working Group on the Medical Examination of Fishing Vessel Personnel to finalize the draft guidelines, taking into account the remaining work (e.g. text left in square brackets and possible replacement of the term "fishing vessel personnel" with "fisher" based on the outcome of MSC 107), with a view to submission to MSC 108 for approval, in conjunction with the adoption of the revision of the 1995 STCW-F Convention and the new STCW-F Code (paragraphs 30 and 31).

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ANNEX 1[1]

DRAFT REVISED INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR FISHING VESSEL PERSONNEL, 1995

CHAPTER I
General provisions

Regulation I/1
Definitions

1 For the purpose of this annex, the following definitions apply.

.1 *Regulations* means regulations contained in the annex to the Convention.

.2 *Approved* means approved by the Party in accordance with these regulations.

.3 *Skipper* means the person having command of a fishing vessel.

.4 *Officer* means a member of the crew, other than the skipper, designated as such by national law or regulations or, in the absence of such designation, by collective agreement or custom.

.5 *Officer in charge of a navigational watch* means an officer qualified in accordance with the provisions of regulation II/2 or II/4 of this Convention.

.6 *Engineer officer* means an officer qualified in accordance with the provisions of regulation II/5-1-1, II/5-1-2 or II/5-2 of this Convention.

.7 *Chief engineer officer* means the senior engineer officer responsible for the mechanical propulsion and operation and maintenance of mechanical and electrical installations of the vessel.

.8 *Second engineer officer* means the engineer officer next in rank to the chief engineer officer and upon whom the responsibility for the mechanical propulsion and the operation and maintenance of the mechanical and electrical installations of the vessel will fall in the event of the incapacity of the chief engineer officer.

.9 *Radio operator* means a person holding an appropriate certificate issued or recognized by an Administration under the provisions of the Radio Regulations.

.10 *Radio Regulations* means the Radio Regulations ~~annexed to, or regarded as being annexed to, the most recent International Telecommunication Convention which may be in force at any time~~ complementing the Constitution and Convention of the International Telecommunication Union which is in force at any given time.

.11 *1978 STCW Convention* means the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978.

[1] Tracked changes are created using "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text

.12 *1993 Torremolinos Protocol* means the Torremolinos Protocol of 1993 relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977.

.13 *2012 Cape Town Agreement* means the Cape Town Agreement of 2012 on the Implementation of the Provisions of the 1993 Torremolinos Protocol relating to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977.

.14 *Month* means a calendar month or 30 days made up of periods of less than one month.

.15 *Seagoing service* means service on board a vessel relevant to the issue or revalidation of a certificate or other qualification.

.~~13~~16 *Propulsion power* means the total maximum continuous rated output power, in kilowatts, of all the vessel's main propulsion machinery which appears on the vessel's certificate of registry or other official document.

.~~14~~17 *Limited waters* means those waters in the vicinity of a Party as defined by its Administration within which a degree of safety is considered to exist which enables the standards of qualification and certification for ~~skippers and officers of~~ all fishing vessel~~s~~ personnel to be set at a lower level than for service outside the defined limits. In determining the extent of limited waters, the Administration shall take into consideration the guidelines developed by the Organization.[*]

.~~15~~18 *Unlimited waters* mean waters beyond limited waters.

.~~16~~19 *Length (L)* shall be taken as 96% of the total length on a waterline at 85% of the least moulded depth measured from the keel line, or as the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In vessels designed with rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

.~~17~~20 *Moulded depth* is the vertical distance measured from the keel line to the top of the working deck beam at side.

.21 *STCW-F Code* means the Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) Code as adopted by MSC resolution […], as it may be amended by the Organization.

.22 *Owner* means the owner of the fishing vessel or any other organization or person, such as the manager, agent, operator, company, authorized representative or bareboat charterer, who has assumed the responsibility for the operation of the vessel from the owner and who, on assuming such responsibility, has agreed to take over the duties and responsibilities imposed on fishing vessel owners in accordance with the Convention, regardless of whether any other organization or person fulfils certain of the duties or responsibilities on behalf of the fishing vessel owner.

[*] Reference is made to annex 1 to resolution A.539(13) on *Certification of skippers and officers in charge of a navigational watch on fishing vessels of 24 metres in length and over*, adopted by the Organization.

.23 *Fishing vessel personnel* means every person employed or engaged in any capacity or carrying out an occupation on board any fishing vessel, including persons working on board who are paid on the basis of a share of the catch but excluding pilots, naval personnel, other persons in the permanent service of a government, shore-based persons carrying out work aboard a fishing vessel and fisheries observers.

.24 *Function* means a group of tasks, duties and responsibilities, as specified in the STCW-F Code, necessary for fishing vessel operation, safety of life at sea or protection of the marine environment.

.25 *Fishing training vessel* means a dedicated training vessel, designed for catching and storing fish, which provides a training opportunity for demonstration and assessment of the competences required by the provisions of chapter II.

.26 *GMDSS radio operator* means a person who is qualified in accordance with the provisions of regulation II/6 of the Convention.

.27 *Certificate of competency* means a certificate issued and endorsed for skippers, officers, GMDSS radio operators in accordance with the provisions of chapter II of this annex and entitling the lawful holder thereof to serve in the capacity and perform the functions involved at the level of responsibility specified therein.

.28 *Certificate of proficiency* means a certificate, other than a certificate of competency issued to fishing vessel personnel, stating that the relevant requirements of training, competencies or seagoing service in the Convention have been met.

2 These regulations are supplemented by the mandatory provisions contained in part A of the STCW-F Code and:

.1 any reference to a requirement in a regulation also constitutes a reference to the corresponding section of part A of the STCW-F Code;

.2 in applying these regulations, the related guidance and explanatory material contained in part B of the STCW-F Code should be taken into account to the greatest degree possible in order to achieve a more uniform implementation of the Convention provisions on a global basis;

.3 amendments to part A of the STCW-F Code shall be adopted, brought into force and take effect in accordance with the provisions of article 10 of the Convention concerning the amendment procedure applicable to the annex; and

.4 part B of the STCW-F Code shall be amended by the Maritime Safety Committee in accordance with its rules of procedure.

Regulation I/2
Application

1 The Administration of a Party, if it considers it unreasonable or impracticable to apply the full requirements of regulations II/3, II/4 and II/5-1-1, II/5-1-2 or II/5-2 and the requirement of the use of the English language to personnel serving on board a fishing vessel of less than 45 metres in length operating exclusively from its ports and fishing within its limited waters, may determine which of these regulations should not apply, wholly or in part, to such personnel, without derogation from the principles of safety in the Convention. In such a case, the Administration concerned shall report to the Secretary-General on the details of the measures it has taken with respect to the training and certification of such personnel.

2 For the purpose of this Convention, the Administration may decide to use the following gross tonnage in place of length (L) as the basis for measurement for all chapters:

.1 a gross tonnage of 300 shall be considered equivalent to a length (L) of 24 m; and

.2 a gross tonnage of 950 shall be considered equivalent to a length (L) of 45 m.

Regulation I/3
Certificates and endorsements

1 Certificates of competency for fishing vessel personnel shall only be issued by the Administration if the requirements for service, age, medical fitness, training, qualification and examinations are met in accordance with these regulations.

2 A certificate of competency issued by a Party in compliance with paragraph 1 shall be endorsed by that Party attesting the issue of that certificate in the form as prescribed in ~~appendix 1 or appendix 2~~ format 1 or 2 of section A-I/3 of the STCW-F Code.

3 Certificates and endorsements shall be issued in the official language or languages of the issuing country. If the language used is not English, the text shall include a translation into that language.

4 In respect of radio operators, Parties may:

.1 include the additional knowledge required by regulation II/6 in the examination for the issue of a certificate complying with the Radio Regulations; or

.2 issue a separate certificate indicating that the holder has the additional knowledge required by regulation II/6.

5 The Administration which has recognized a certificate issued by or under the authority of another Party in compliance with regulation I/7 shall issue an endorsement attesting the recognition of that certificate in the form prescribed in ~~appendix 3~~ format 3 of section A-I/3 of the STCW-F Code.

6 The endorsement shall expire as soon as the certificate endorsed expires or is withdrawn, suspended or cancelled by the Party which issued it and, in any case, not more than five years after the date of issue.

7 ~~Any~~ aAppropriate certificates of competency issued under the provisions of the 1978 STCW Convention for the holder to serve as a C~~c~~hief E~~e~~ngineer O~~o~~fficer, an E~~e~~ngineer O~~o~~fficer or GMDSS R~~r~~adio O~~o~~perator shall be deemed to be a corresponding certificate for the purposes of paragraph 1 with regard to fishing vessels.

8 Medical certificates issued in accordance with the provisions of regulation I/9 of the 1978 STCW Convention shall be accepted as valid for the personnel of fishing vessels.

~~8~~9 Subject to the variations permitted under ~~appendices~~ formats 1, 2 and 3 of section A-I/3 of the STCW-F Code, Administrations may use a format different from the format given in ~~those appendices~~ the section provided that such format contains, as a minimum, the required information and that the particulars are inserted in Roman characters and Arabic figures.

Regulation I/4
Control procedures

1 Control exercised by a duly authorized officer under article 8 shall be limited to the following:

.1 verification that all fishing vessel personnel serving on board who are required to be certificated by this Convention are so certificated or hold the required dispensation. Such certificates shall be accepted unless there are clear grounds for believing that a certificate has been fraudulently obtained or that the holder of a certificate is not the person to whom that certificate was originally issued; and

.2 assessment of the ability of the fishing vessel personnel to maintain watchkeeping standards as required by the Convention if there are clear grounds for believing that such standards are not being maintained, because the following have occurred:

~~.2~~.1 the vessel has been involved in a collision, grounding or stranding; or

~~.2~~.2 there has been a discharge of substances from the vessel when under way, at anchor or at berth which is illegal under international conventions; or

~~.2~~.3 the vessel has been manoeuvred in an erratic or unsafe manner, whereby routeing measures adopted by the Organization, or safe navigation practices and procedures, have not been followed; or

~~.2~~.4 the vessel is otherwise being operated in such a manner as to pose a danger to persons, property or the environment.

2 In the event that deficiencies are found under paragraph 1, the officer carrying out the control shall forthwith inform, in writing, the skipper of the vessel and the Administration, so that appropriate action may be taken. Such notification shall specify the details of the deficiencies found and the grounds on which the Party determines that these deficiencies pose a danger to persons, property or the environment.

3 Deficiencies which may be deemed to pose a danger to persons, property or the environment include the following:

.1 failure of persons, required to hold a certificate, to have an appropriate certificate or dispensation;

.2 failure of navigational or engineering watch arrangements to conform to the requirements specified for the vessel by the Administration;

.3 absence in a watch of a person qualified to operate equipment essential to safe navigation, safety radio communications or the prevention of pollution; or

.4 inability to provide rested persons for the first watch at the commencement of a voyage, and for subsequent relieving watches.

Regulation I/5
Communication of information

1 The Secretary-General shall, on request, provide Parties with any information communicated to him under article 4.

2 A Party which fails to communicate information required by article 4 within ~~twenty-four~~ 24 months after the date of entry into force of the Convention for a Party shall not be entitled to claim the privileges of this Convention until such time as the information has been received by the Secretary-General.

Regulation I/6
Administration of certification arrangements

1 Each Party undertakes to establish and maintain a means of ensuring that programmes incorporating such instruction and practical training as is necessary to achieve the competency standards are regularly monitored to ensure their effectiveness.

2 Each Party undertakes, to the extent practicable, to maintain a register or registers of all certificates and endorsements specified in regulations I/3 and II/1 to II/6 which are issued, have expired, or have been revalidated, reported lost, suspended or cancelled, and of dispensations issued, and provide information on the status of such certificates, endorsements and dispensations when so requested by another Party.

Regulation I/7
Recognition of certificates

1 Each Administration shall ensure, in order to recognize, by endorsement in accordance with regulation I/3, a certificate issued by or under the authority of another Party, that the requirements for standards of competence, as well as the issue and endorsement of certificates by that Party, are fully complied with.

2 Certificates issued by or under the authority of a non-Party shall not be recognized.

3 Notwithstanding the requirement of paragraph 1 of this regulation and paragraph 5 of regulation I/3, an Administration may, if circumstances require, allow a person to serve for a period not exceeding three months on board a vessel entitled to fly its flag while holding an appropriate and valid certificate issued by another Party without it being endorsed as required

by paragraph 5 of regulation I/3 provided that documented proof is made available that application for an endorsement has been submitted to the Administration.

Regulation I/8
Transitional provisions

1 A certificate of competency or of service in a capacity for which this Convention requires a certificate and which before entry into force of the Convention for a Party is issued in accordance with the laws of that Party or the Radio Regulations, shall be recognized as valid for service after entry into force of the Convention for that Party.

2 After the entry into force of the Convention for a Party, it may continue to issue certificates of competency in accordance with its previous practices for a period not exceeding five years. Such certificates shall be recognized as valid for the purpose of the Convention. During this transitional period such certificates shall be issued only to persons who had commenced their sea service before entry into force of the Convention for that Party within the specific ship department to which those certificates relate. The Party shall ensure that all other candidates for certification shall be examined and certificated in accordance with the Convention.

3 A Party may, within two years after entry into force of the Convention for that Party, issue a certificate of service to fishing vessel personnel who hold neither an appropriate certificate under the Convention nor a certificate of competency issued under its laws before entry into force of the Convention for that Party but who have:

.1 served in the capacity for which they seek a certificate of service for not less than three years at sea within the last seven years preceding entry into force of the Convention for that Party;

.2 produced evidence that they have performed that service satisfactorily; and

.3 satisfied the Party as to medical fitness, including eyesight and hearing, taking into account their age at the time of application.

For the purpose of the Convention, a certificate of service issued under this paragraph shall be regarded as the equivalent of a certificate issued under the Convention.

Regulation I/9
Dispensation

1 In circumstances of exceptional necessity, an Administration, if in its opinion this will not cause danger to persons, property or the environment, may issue a dispensation permitting a person to serve in a specified fishing vessel for a specified period not exceeding six months in a capacity, other than that of the radio operator, except as provided by the relevant Radio Regulations, for which the person does not hold the appropriate certificate, provided that the person to whom the dispensation is issued shall be adequately qualified to fill the vacant post in a safe manner, to the satisfaction of the Administration.

2 Any dispensation granted for a post shall be granted only to a person properly certificated to fill the post immediately below it. Where certification of the post below is not required by the Convention, a dispensation may be issued to a person whose competence and experience are, in the opinion of the Administration, clearly equivalent to the requirements for the post to be filled, provided that, if such a person holds no appropriate certificate, the person shall be required to pass a test accepted by the Administration as demonstrating that such a

dispensation may safely be issued. In addition, the Administration shall ensure that the post in question is filled by the holder of an appropriate certificate as soon as possible.

3 Each Party shall as soon as possible after 1 January each year send a report to the Secretary-General giving information of the total number of dispensations in respect of each capacity for which a certificate is required, including nil returns.

Regulation I/10
Equivalents

1 The Convention shall not prevent a Party from retaining or adopting other educational and training arrangements, including those involving seagoing service and shipboard organization especially adapted to technical developments and to special types of vessels, provided that the level of seagoing service, knowledge and efficiency as regards navigational and technical handling of vessels ensures a degree of safety at sea and has a preventive effect as regards pollution at least equivalent to the requirements of the Convention.

2 Details of such arrangements shall be included in the report under article 4.

Regulation I/11
Use of simulators

1 The performance standards and other provisions set forth in section A-I/11 and such other requirements as are prescribed in part A of the STCW-F Code for any certificate concerned shall be complied with in respect of:

.1 all simulator-based training;

.2 any assessment of competency required by part A of the STCW-F Code which is carried out by means of a simulator; and

.3 any demonstration, by means of a simulator, of continued proficiency required by part A of the STCW-F Code.

Regulation I/12
Medical standards

1 Each Party shall establish standards of medical fitness for fishing vessel personnel and procedures for the issue of a medical certificate in accordance with the provisions of this regulation and of section A-I/12 of the STCW-F Code.

2 Each Party shall ensure that those responsible for assessing the medical fitness of fishing vessel personnel are medical practitioners recognized by the Party for the purpose of fishing vessel personnel medical examinations, in accordance with the provisions of section A-I/12 of the STCW-F Code.

3 Every crew member holding a certificate issued under the provisions of the Convention, who is serving at sea, shall also hold a valid medical certificate issued in accordance with the provisions of this regulation and of section A-I/12 of the STCW-F Code.

4 Every candidate for certification shall:

.1 be not less than 16 years of age; or

.2 be not less than 15 years of age provided that the candidate is authorized by the competent authority in accordance with national laws and practice.*

.3 provide satisfactory proof of his or her identity; and

.4 meet the applicable medical fitness standards established by the Party.

5 Medical certificates shall remain valid for a maximum period of two years unless the crew member is under the age of 18, in which case the maximum period of validity shall be one year.

6 If the period of validity of a medical certificate expires in the course of a voyage, then the medical certificate shall continue in force until the next port of call where a medical practitioner recognized by the Party is available, provided that the period shall not exceed three months.

7 In urgent cases the Administration may permit a crew member to work without a valid medical certificate until the next port of call where a medical practitioner recognized by the Party is available, provided that:

.1 the period of permission does not exceed three months; and

.2 the crew member concerned is in possession of an expired medical certificate of recent date.

* Reference is made to article 9 of the ILO Work in Fishing Convention, 2007 (No.188).

CHAPTER II

Certification of skippers, officers, engineer officers and radio operators

Regulation II/1

Mandatory minimum requirements for certification of skippers on fishing vessels of 24 metres in length and over operating in unlimited waters

1 Every skipper on a fishing vessel of 24 metres in length and over operating in unlimited waters shall hold ~~an appropriate~~ a certificate of competency.

2 Every candidate for certification shall:

.~~2~~1 meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters, and have approved seagoing service of not less than 12 months as an officer in charge of a navigational watch or skipper on fishing vessels of not less than 12 metres in length. However, the Party may allow, the substitution of a period not exceeding six months of approved seagoing service, as an officer in charge of a navigational watch on seagoing ~~ships~~ vessels covered by the 1978 STCW Convention; and

.~~3~~2 ~~have passed an appropriate examination or examinations for assessment of competence to the satisfaction of the Party. Such examination or examinations shall include the material set out in the appendix to this regulation. A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate~~ meet the standard of competence specified in section A-II/1 of the STCW-F Code.

3 A candidate who holds a valid certificate of competency issued in accordance with the provisions of the Convention need not be reassessed in those standards of competence listed in section A-II/1 of the STCW-F Code that were required at a higher or equivalent level for the issuance of the corresponding 1978 STCW Convention certificate.

~~**Appendix to regulation 1**~~

~~*Minimum knowledge required for certification of skippers on fishing vessels of 24 metres in length and over operating in unlimited waters*~~

(appendix to regulation 1 is deleted as a whole)

Regulation II/2

Mandatory minimum requirements for certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters

1 Every officer in charge of a navigational watch on a fishing vessel of 24 metres in length and over operating in unlimited waters shall hold ~~an appropriate~~ a certificate of competency.

2 Every candidate for certification shall:

.1 be not less than 18 years of age;

.2 have approved seagoing service of not less than:

.1 12 months on fishing vessels or fishing training vessels of not less than 12 metres in length as part of an approved training programme which includes onboard training that meets the requirements of section A-II/2 of the STCW-F Code and is documented in an approved training record book; or

.~~3~~2 two years in the deck department on fishing vessels of not less than 12 metres in length. However, the Administration may allow the substitution of the seagoing service by a period of special training not exceeding one year, provided that the period of the special training programme shall be at least equivalent in value to the period of the required seagoing service it substitutes or by a period of approved seagoing service evidenced by an approved record book covered by the 1978 STCW Convention;

.~~4~~3 ~~have passed an appropriate examination or examinations for the assessment of competency to the satisfaction of the Party. Such examination or examinations shall include the material set out in the appendix to this regulation. A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate;~~ meet the standard of competence specified in section A-II/2 of the STCW-F Code; and

.~~5~~4 meet the applicable requirements of regulation II/6, as appropriate for performing designated radio duties in accordance with the Radio Regulations.

3 A candidate who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention need not be reassessed in those standards of competence listed in section A-II/2 of the STCW-F Code that were required at a higher or equivalent level for the issuance of the corresponding 1978 STCW Convention certificate.

~~**Appendix to regulation 2**~~

~~*Minimum knowledge required for certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters*~~

(appendix to regulation 2 is deleted as a whole)

Regulation II/3
Mandatory minimum requirements for certification of skippers on fishing vessels of 24 metres in length and over operating in limited waters

1 Every skipper on a fishing vessel of 24 metres in length and over operating in limited waters shall, unless they hold certificates issued in compliance with regulation II/1, hold ~~an appropriate~~ a certificate of competency issued in compliance with at least the provisions of this regulation.

2 Every candidate for certification shall:

.~~2~~1 meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited or unlimited waters, and have approved seagoing service of not less than 12 months as an officer in charge of a navigational watch or skipper on fishing vessels of not less than 12 metres in length. However, a Party may allow the substitution of a period not exceeding six months of approved seagoing service as officer in charge of a navigational watch on ~~merchant ships~~ seagoing vessels covered by the 1978 STCW Convention; and

.~~3~~2 ~~have passed an appropriate examination or examinations for the assessment of competency to the satisfaction of the Party. Such examination or examinations shall include the material set out in the appendix to this regulation~~ meet the standard of competence specified in section A-II/3 of the STCW-F Code.

3 The Party, bearing in mind the effect on the safety of all ~~ships~~ vessels and structures which may be operating in the same limited waters, should consider the limited waters it has defined in accordance with the definition given in regulation I/1 and determine any additional material that should be included in the ~~examination or examinations~~ standard of competence.

4 A candidate ~~for examination~~ who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention need not be ~~re-examined~~ reassessed in those ~~subjects~~ standards of competence listed in ~~the appendix which were passed~~ section A-II/3 of the STCW-F Code that were required at a higher or equivalent level for the ~~issue of the~~ issuance of the corresponding 1978 STCW Convention certificate.

~~**Appendix to regulation 3**~~

~~*Minimum knowledge required for certification of skippers on fishing vessels of 24 metres in length and over operating in limited waters*~~

(appendix to regulation 3 is deleted as a whole)

Regulation II/4
Mandatory minimum requirements for certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters

1 Every officer in charge of a navigational watch on a fishing vessel of 24 metres in length and over operating in limited waters shall either hold a certificate issued in compliance with regulation II/2 or hold ~~an appropriate~~ a certificate of competency issued in compliance with at least the provisions of this regulation.

2 Every candidate for certification shall:

.1 be not less than 18 years of age;

.2 have approved seagoing service of not less than:

.1 12 months on fishing vessels or fishing training vessels of not less than 12 metres in length as part of an approved training programme which includes onboard training that meets the requirements of

section A-II/4 of the STCW-F Code and is documented in an approved training record book; or

.32 ~~have approved seagoing service of not less than~~ two years in the deck department on fishing vessels of not less than 12 metres in length. However, the Administration may allow the substitution of the seagoing service by a period of special training not exceeding one year, provided that the period of the special training programme shall be at least equivalent in value to the period of the required seagoing service it substitutes or by a period of approved seagoing service evidenced by an approved record book covered by the 1978 STCW Convention~~.~~; and

.3 meet the standard of competence specified in section A-II/4 of the STCW-F Code.

.4 meet the appropriate requirements for performing designated radio duties in accordance with the Radio Regulations.

~~.4 have passed an appropriate examination or examinations for assessment of competency to the satisfaction of the Party. Such examination or examinations shall include the material set out in the appendix to this regulation. A candidate for examination who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention need not be re-examined in those subjects listed in the appendix which were passed at a higher or equivalent level for issue of the Convention certificate; and~~

~~.5 meet the applicable requirements of regulation 6, as appropriate for performing designated radio duties in accordance with the Radio Regulations.~~

3 A candidate who holds a valid certificate of competency issued in accordance with the provisions of the 1978 STCW Convention need not be reassessed in those standards of competence listed in section A-II/4 of the STCW-F Code, which were required at a higher or equivalent level for the issuance of the corresponding certificate.

~~Appendix to regulation 4~~

~~Minimum knowledge required for certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters~~

(appendix to regulation 4 is deleted as a whole)

~~Regulation 5~~

~~Mandatory minimum requirements for certification of chief engineer officers and second engineer officers of fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more~~

~~1 Every chief engineer officer and second engineer officer serving on a seagoing fishing vessel powered by main propulsion machinery of 750 kW propulsion power or more shall hold an appropriate certificate.~~

~~2 Every candidate for certification shall:~~

~~1 be not less than 18 years of age;~~

~~.2 satisfy the Party as to medical fitness, including eyesight and hearing;~~

~~.3 for certification as second engineer officer, have not less than 12 months approved seagoing service in the engine-room; however, this period may be reduced to not less than 6 months if the Party requires special training which it considers to be equivalent to the approved seagoing service it replaces;~~

~~.4 for certification as chief engineer officer, have not less than 24 months approved seagoing service, of which not less than 12 months shall be served while qualified to serve as second engineer officer;~~

~~.5 have participated in an approved practical fire-fighting course; and~~

~~.6 have passed an appropriate examination for the assessment of competency to the satisfaction of the Party. Such examination shall include the material set out in the appendix to this regulation, except that the Party may vary the requirements for examination and seagoing service for officers of fishing vessels engaged in voyages in limited waters bearing in mind the power of the propulsion machinery and the effect on the safety of all fishing vessels which may be operating in the same waters.~~

~~3 Training to achieve the necessary theoretical knowledge and practical experience shall take into account relevant international regulations and recommendations.~~

~~4 The level of knowledge required under the different paragraphs of the appendix may be varied according to whether the certificate is being issued at chief engineer officer or second engineer officer level.~~

~~**Appendix to regulation 5**~~

~~*Minimum knowledge required for certification of chief engineer officers and second engineer officers of fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more*~~

(appendix to regulation 5 is deleted as a whole)

Regulation II/5-1-1
Mandatory minimum requirements for certification of chief engineer officers and second engineer officer on fishing vessels powered by main propulsion machinery of 3,000 kW propulsion power or more

1 Every chief engineer officer and second engineer officer on a seagoing fishing vessel powered by main propulsion machinery of 3,000 kW propulsion power or more shall hold a certificate of competency.

2 Every candidate for certification shall:

.1 meet the requirements for certification as an officer in charge of an engineering watch on fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more and have approved seagoing service in that capacity:

.1.1 for certification as second engineer officer, have not less than 12 months as qualified engineer officer, and

.1.2 for certification as chief engineer officer, have not less than 36 months; however, this period may be reduced to not less than 24 months if not less than 12 months of such seagoing service has been served as second engineer officer; and

.2 have completed approved education and training and meet the standard of competence specified in section A-II/5-1-1 of the STCW-F Code.

Regulation II/5-1-2
Mandatory minimum requirements for certification of chief engineer officers and second engineer officer on fishing vessels powered by main propulsion machinery of between 750 kW and 3,000 kW propulsion power.

1 Every chief engineer officer and second engineer officer on a seagoing fishing vessel powered by main propulsion machinery of between 750 kW and 3,000 kW propulsion power shall hold a certificate of competency.

2 Every candidate for certification shall:

.1 meet the requirements for certification as an officer in charge of an engineering watch on fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more and:

.1 for certification as second engineer officer, have not less than 12 months of approved seagoing service as assistant engineer officer or engineer office; and

.1 for certification as a chief engineer officer, have not less than 24 months of approved seagoing service of which not less than 12 months shall be served while qualified to serve as second engineer officer; and

.2 have completed approved education and training and meet the standard of competence specified in section A-II/5-1-2 of the STCW-F Code.

3 Every engineer officer who is qualified to serve as second engineer officer on fishing vessels powered by main propulsion machinery of 3,000 kW propulsion or more, may serve as chief engineer officer on fishing vessels powered by main propulsion machinery of less than 3,000 kW propulsion power, provided the certificate is so endorsed.

Regulation II/5-2
Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room of fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more

1 Every officer in charge of an engineering watch in a manned engine-room or designated duty engineer officer in a periodically unmanned engine-room serving on a seagoing fishing vessel powered by main propulsion machinery of 750 kW propulsion power or more shall hold a certificate of competency.

2 Every candidate for certification shall:

.1 be not less than 18 years of age;

.2 have completed 12 months of combined workshop skills training and approved seagoing service of which not less than 6 months must be served on board fishing vessels or fishing training vessels as part of an approved training programme which includes onboard training that meets the requirements of section A-II/5-2 of the STCW-F Code and is documented in an approved training record book; or

.3 have completed 12 months of combined workshop skills training and approved seagoing service of which not less than 6 months must be served on ships or training ships being operated in accordance with the 1978 STCW Convention as part of an approved training programme which includes onboard training that meets the requirements of section A-II/5-2 of the STCW-F Code and is documented in an approved training record book; or

.4 have approved seagoing service of not less than 12 months in the engine-room. However, the Administration may allow, as deemed necessary, the substitution of up to six months of the seagoing service by a period of special training such as workshop skills training, provided that the special training programme is equivalent in value to the period of the required seagoing service it substitutes; and

.5 meet the standard of competence specified in section A-II/5-2 of the STCW-F Code.

3 The Party may vary the requirements for standard of competence and seagoing service for officers of fishing vessels engaged in voyages in limited waters bearing in mind the power of the propulsion machinery and the effect on the safety of all fishing vessels which may be operating in the same waters.

4 Training to achieve the necessary theoretical knowledge and practical experience shall take into account relevant international regulations and recommendations.

Regulation II/6
Mandatory minimum requirements for certification of ~~personnel in charge of or performing radiocommunication duties~~ GMDSS radio operators on board fishing vessels

Explanatory note

Mandatory provisions relating to radio watchkeeping are set forth in the Radio Regulations and the 2012 Cape Town Agreement. Provisions for radio maintenance are set forth in the 2012 Cape Town Agreement.~~*~~

~~* Reference is made to the Recommendation on radio maintenance guidelines for the global maritime distress and safety system related to sea areas A3 and A4 adopted by the Organization by resolution A.702(17).~~

Application

1 Except as provided in paragraph 2, the provisions of this regulation shall apply to ~~personnel in charge of, or performing, radiocommunication duties on a vessel required by international agreement or national law to carry radio equipment using the frequencies and~~

~~techniques of~~ radio operators on fishing vessels operating within the ~~G~~global ~~M~~maritime ~~D~~distress and ~~S~~safety ~~S~~system (GMDSS) as prescribed by the international conventions.

2 ~~Personnel on vessels for which carriage of radio equipment is not compulsory under international agreements or national law~~ Radio operators on fishing vessels that are not required to comply with the provisions of the GMDSS are not required to meet the provisions of this regulation, but are nevertheless required to comply with the Radio Regulations. The Administration shall ensure that the appropriate certificates ~~meeting the requirements of~~ as prescribed by the Radio Regulations are issued or recognized in respect of such ~~personnel~~ radio operators.

Mandatory ~~M~~minimum requirements for certification of GMDSS radio ~~personnel~~ operators

1 Every person in charge of~~,~~ or performing~~,~~ radiocommunication duties on a fishing vessel operating within the GMDSS shall hold an appropriate certificate ~~or certificates~~ related to the GMDSS, issued or recognized by the Administration under the provisions of the Radio Regulations.

~~2 The minimum knowledge, understanding and proficiency required for certification under this regulation shall be sufficient for radio personnel to carry out their radio duties safely and efficiently.~~

~~3~~2 In addition, ~~E~~every candidate for certification of competency under this regulation for service on a fishing vessel which is required by the 1993 Torremolinos Protocol or the 2012 Cape Town Agreement to have a radio installation, shall:

.1 be not less than 18 years of age; and

~~.2 satisfy the Party as to medical fitness, particularly regarding eyesight and hearing; and~~

.~~3~~2 ~~meet the requirements of the appendix to this regulation~~ have completed approved education and training and meet the standard of competence specified in section A-II/6 of the STCW-F Code.

~~4 Every candidate for certification shall be required to pass an examination or examinations to the satisfaction of the Party.~~

~~5~~3 For endorsement of all types of certificates issued under the provisions of the Radio Regulations as meeting the requirements of the Convention, the required knowledge, understanding and proficiency is given in ~~the appendix to this regulation~~ section A-II/6 of the STCW-F Code. In determining the appropriate level of knowledge and training the Party shall also take into account the relevant recommendations in section B-II/6 of the STCW-F Code ~~of the Organization~~.~~*~~

~~* Reference is made to the Recommendations on training for radio personnel (GMDSS) adopted by the Organization by resolution A.703(17).~~

~~Appendix to regulation 6~~

~~Minimum additional knowledge and training requirements for GMDSS radio personnel~~

(appendix to regulation 6 is deleted as a whole)

Regulation II/7
~~Mandatory minimum requirements to ensure the continued proficiency and updating of knowledge~~ Revalidation of certificates for skippers~~,~~ and officers ~~and engineer officers~~

1 Every skipper or officer holding a certificate issued or recognized under this chapter of the Convention, who is serving at sea or intends to return to sea after a period ashore, shall, in order to continue to qualify for seagoing service, be required, at intervals not exceeding five years, to ~~satisfy the Administration as to~~:

.1 ~~medical fitness, particularly regarding eyesight and hearing~~ meet the standards of medical fitness prescribed in regulation I/12; and

.2 ~~seagoing service as skipper or officer of at least one year during the preceding five years; or~~ establish continued professional competence in accordance with section A-II/7 of the STCW-F Code.

~~.3 ability to perform fishing vessel operational duties relating to the duties appropriate to the grade of certificate held which are considered to be at least equivalent to the seagoing service required in paragraph 1.2, or by:~~

~~.3.1 passing an approved test; or~~

~~.3.2 successfully completing an approved course or course appropriate, for skippers and officers who are serving on fishing vessels, especially for re-entrants to seagoing service on these vessels; or~~

~~.3.3 having completed approved seagoing service as an officer for a period of not less than three months on a fishing vessel in a supernumerary capacity, immediately prior to taking up the position for which the certificate is valid.~~

~~2 The refresher and updating courses required by this regulation shall be approved by the Administration and include the text of recent changes in international regulations concerning the safety of life at sea and the protection of the marine environment.~~

2 Each Party shall compare the standards of competence which it required of candidates for certificates issued before DD/MM/YYYY (Date entry into force plus five years) with those specified for the appropriate certificate in part A of the STCW-F Code, and shall determine the need for requiring the holders of such certificates to undergo appropriate refresher and updating training or assessment.

3 The Party shall, in consultation with those concerned, formulate or promote the formulation of a structure of refresher and updating courses as provided for in section A-II/7 of the STCW-F Code.

~~3~~4 For the purpose of updating the knowledge of skippers and officers, each ~~The~~ Administration shall ensure that the texts of recent changes in national and international regulations concerning the safety of life at sea, and the protection of the marine environment are made available to ~~ships under its jurisdiction~~ fishing vessels entitled to fly its flag.

Regulation II/8
~~Mandatory minimum requirements to ensure the continued proficiency and updating of knowledge~~ Revalidation of certificates for GMDSS radio ~~personnel~~ operators

1 Every GMDSS radio ~~personnel~~ operator holding a certificate ~~or certificates~~ issued or recognized ~~by the Party~~ under this chapter of the Convention, who is serving at sea or intends to return to sea after a period ashore, shall, in order to continue to qualify for seagoing service, be required, at intervals not exceeding five years, to ~~satisfy the Party as to the following~~:

.1 ~~medical fitness, particularly regarding eyesight and hearing, at regular intervals not exceeding five years~~ meet the standards of medical fitness prescribed in regulation I/12; and

~~.2 professional competence:~~

~~.2.1 by approved seagoing service involving radiocommunication duties for a period of at least one year in total during the preceding five years; or~~

~~.2.2 by virtue of having performed functions relating to the duties appropriate to the grade of certificate held which are considered to be at least equivalent to the seagoing service required in paragraph 1.2.1; or~~

~~.2.3 by passing an approved test or successfully completing an approved training course or courses at sea or ashore which shall include those elements which are of direct relevance to the safety of life at sea, and which are applicable for the certificate that the person is holding, in accordance with the requirements of the 1993 Torremolinos Protocol.~~

.2 establish continued professional competence in accordance with section A- II/8 of the STCW-F Code.

~~2 When new modes, equipment or practices are to become mandatory aboard vessels entitled to fly the flag of a Party, the Party may require GMDSS radio personnel to pass an approved test or successfully complete an appropriate training course or courses, at sea or ashore, with particular reference to safety duties.~~

2 Each Party shall compare the standards of competence which it required of candidates for certificates issued before DD/MM/YYYY (Date entry into force plus five years) with those specified for the appropriate certificate in part A of the STCW-F Code, and shall determine the need for requiring the holders of such certificates to undergo appropriate refresher and updating training or assessment.

3 The Party shall, in consultation with those concerned, formulate or promote the formulation of a structure of refresher and updating courses as provided for in section A-II/8 of the STCW-F Code.

~~3~~4 For the purpose of updating the knowledge of GMDSS radio operators, each ~~The~~ Administration shall ensure that the texts of recent changes in national and international regulations ~~relating to~~ concerning radiocommunications and relevant to the safety of life at sea are made available to ships entitled to fly its flag.

CHAPTER III

Basic ~~safety~~ training and onboard safety familiarization for all fishing vessel personnel

Regulation III/1

Mandatory minimum requirements for ~~B~~basic ~~safety~~ training and onboard safety familiarization for all fishing vessel personnel

1 Fishing vessel personnel shall, before being assigned to any shipboard duties~~,~~ ~~receive basic training approved by the Administration~~:

.1 ~~personal survival techniques, including donning of lifejackets and, as appropriate, immersion suits~~ receive basic training approved by the Administration and onboard safety familiarization; and

.2 ~~fire prevention and fire fighting;~~ meet the appropriate standard of competence,

~~.3 emergency procedures;~~

~~.4 elementary first aid;~~

~~.5 prevention of marine pollution; and~~

~~.6 prevention of shipboard accidents.~~

in accordance with section A-III/1.

~~2 In implementing the provisions of paragraph 1, the Administration shall determine whether and, if so to what extent, these provisions shall apply to personnel of small fishing vessel or personnel already employed on fishing vessels.~~

2 Where basic training is not included in the qualification for the certificate to be issued, a certificate of proficiency shall be issued, indicating that the holder has successfully completed the course in basic training.

3 A candidate who holds a valid certificate of proficiency issued in accordance with the provisions of the 1978 STCW Convention need not be reassessed in those standards of competence listed in sections A-III/1-1, A-III/1-2, A-III/1-3 and A-III/1-4 of the STCW-F Code that were required at a higher or equivalent level for the issuance of the corresponding 1978 STCW Convention certificate.

CHAPTER IV
Watchkeeping

Regulation IV/1
Fitness for duty

The watch system shall be such that the efficiency of watchkeeping personnel is not impaired by fatigue. Duties shall be so organized that the first watch at the commencement of a voyage and the subsequent relieving watches are sufficiently rested and otherwise fit for duty.

Regulation IV/~~1~~2
Basic watchkeeping principles to be observed ~~in keeping a navigational watch~~ on board fishing vessels

1 Administrations shall direct the attention of owners and operators of fishing vessels, skippers, chief engineer officer and all watchkeeping personnel to the ~~following~~ requirements, principles~~,~~ and guidance set out in the STCW-F Code which shall be observed to ensure that a safe ~~navigational~~ watch is maintained at all times.

2 The skipper of every fishing vessel shall ensure that watchkeeping arrangements are adequate for maintaining a safe ~~navigational~~ watch~~. Under~~ or watches, taking into account the prevailing circumstances and conditions and that, under, the skipper's general direction:~~, the officers of the watch are responsible for navigating the fishing vessel safely during their periods of duty, when they will be particularly concerned with avoiding collision and stranding.~~

.1 officers in charge of the navigational watch are responsible for navigating the fishing vessel safely during their periods of duty, when they shall be physically present on the navigating bridge or in a directly associated location such as the chartroom or bridge control room at all times;

.2 radio operators are responsible for maintaining a continuous radio watch on appropriate frequencies during their periods of duty;

.3 officers in charge of an engineering watch, as defined in the STCW-F Code, under the direction of the chief engineer officer, shall be immediately available and on call to attend the machinery spaces and, when required, shall be physically present in the machinery space during their periods of responsibility; and

.4 an appropriate and effective watch or watches are maintained for the purpose of safety at all times.

3 The basic watchkeeping principles, including but not limited to ~~the following~~ those set out in the STCW-F Code, shall be taken into account on all fishing vessels. However, a Party may exclude very small fishing vessels operating in limited waters from fully observing the basic principles.

~~**4 En route to or from fishing grounds**~~

~~*4.1 Arrangements of the navigational watch*~~

~~4.1.1 The composition of the watch shall at all times be adequate and appropriate to the prevailing circumstances and conditions, and shall take into account the need for maintaining a proper lookout.~~

4.1.2 When deciding the composition of the watch the following factors, inter alia, shall be taken into account:

.1 at no time shall the wheelhouse be left unattended;

.2 weather conditions, visibility and whether there is daylight or darkness;

.3 proximity of navigational hazards which may make it necessary for the officer in charge of the watch to carry out additional navigational duties;

.4 use and operational condition of navigational aids such as radar or electronic position-indicating devices and of any other equipment affecting the safe navigation of the vessel;

.5 whether the vessel is fitted with automatic steering; and

.6 any unusual demands on the navigational watch that may arise as a result of special operational circumstances.

4.2 Fitness for duty

The watch system shall be such that the efficiency of watchkeeping personnel is not impaired by fatigue. Duties shall be so organized that the first watch at the commencement of a voyage and the subsequent relieving watches are sufficiently rested and otherwise fit for duty.

4.3 Navigation

4.3.1 The intended voyage shall, as far as practicable, be planned in advance taking into consideration all pertinent information, and any course laid down shall be checked before the voyage commences.

4.3.2 During the watch the course steered, position and speed shall be checked at sufficiently frequent intervals, using any available navigational aids necessary, to ensure that the vessel follows the planned course.

4.3.3 The officer in charge of the watch shall have full knowledge of the location and operation of all safety and navigational equipment on board the vessel, and shall be aware and take account of the operating limitations of such equipment.

4.3.4 The officer in charge of a navigational watch shall not be assigned or undertake any duties which would interfere with the safe navigation of the vessel.

4.4 Navigational equipment

4.4.1 The officers in charge of the watch shall make the most effective use of all navigational equipment at their disposal.

4.4.2 When using radar the officer in charge of the watch shall bear in mind the necessity to comply at all times with the provisions on the use of radar contained in the applicable regulations for preventing collisions at sea.

4.4.3 In cases of need the officer of the watch shall not hesitate to use the helm, engines, and sound and light signalling apparatus.

4.5 Navigational duties and responsibilities

4.5.1 The officer in charge of the watch shall:

.1 keep watch in the wheelhouse;

.2 in no circumstances leave the wheelhouse until properly relieved;

.3 continue to be responsible for the safe navigation of the vessel despite the presence of the skipper in the wheelhouse until informed specifically that the skipper has assumed that responsibility and this is mutually understood;

.4 notify the skipper when in any doubt as to what action to take in the interest of safety; and

.5 not hand over the watch to a relieving officer if there is reason to believe that the latter is not capable of carrying out the watchkeeping duties effectively, in which case the skipper shall be notified.

4.5.2 On taking over the watch the relieving officer shall confirm and be satisfied as to the vessel's estimated or true position and confirm its intended track, course and speed, and shall note any dangers to navigation expected to be encountered during the watch.

4.5.3 Whenever practicable a proper record shall be kept of the movements and activities during the watch relating to the navigation of the vessel.

4.6 Lookout

4.6.1 Proper lookout shall be maintained in compliance with rule 5 of the International Regulations for Preventing Collisions at Sea, 1972. It shall serve the purpose of:

.1 maintaining a continuous state of vigilance by sight and hearing as well as by all other available means, with regard to any significant changes in the operating environment;

.2 fully appraising the situation and the risk of collision, stranding and other dangers to navigation; and

.3 detecting vessels or aircraft in distress, shipwrecked persons, wrecks and debris.

4.6.2 In determining that the composition of the navigational watch is adequate to ensure that a proper lookout can continuously be maintained, the skipper shall take into account all relevant factors, including those described under paragraph 4.1 of this regulation, as well as the following factors:

.1 visibility, state of weather and sea;

.2 traffic density, and other activities occurring in the area in which the vessel is navigating;

.3 the attention necessary when navigating in or near traffic separation schemes and other routeing measures;

.4 the additional workload caused by the nature of the vessel's functions, immediate operating requirements and anticipated manoeuvres;

.5 rudder and propeller control and vessel manoeuvring characteristics;

.6 the fitness for duty of any crew members on call who may be assigned as members of the watch;

.7 knowledge of and confidence in the professional competence of the vessel's officers and crew;

.8 the experience of the officer of the navigational watch and the familiarity of that officer with the vessel's equipment, procedures, and manoeuvring capability;

.9 activities taking place on board the vessel at any particular time, and the availability of assistance to be summoned immediately to the wheelhouse when necessary;

.10 the operational status of instrumentation in the wheelhouse and controls, including alarm systems;

.11 the size of the vessel and the field of vision available from the conning position;

.12 the configuration of the wheelhouse, to the extent such configuration might inhibit a member of the watch from detecting by sight or hearing any external developments; and

.13 any relevant standards, procedures and guidelines relating to watchkeeping arrangements and fitness for duty which have been adopted by the Organization.

4.7 Protection of the marine environment

The skipper and the officer in charge of the watch shall be aware of the serious effects of operational or accidental pollution of the marine environment, and shall take all possible precautions to prevent such pollution, particularly within the framework of relevant international and port regulations.

4.8 Weather conditions

The officer in charge of the watch shall take relevant measures and notify the skipper when adverse changes in weather could affect the safety of the vessel, including conditions leading to ice accretion.

5 Navigation with pilot embarked

The presence of a pilot on board does not relieve the skipper or officer in charge of the watch from their duties and obligations for the safety of the vessel. The skipper and the pilot shall exchange information regarding navigation procedures, local conditions and the vessel's characteristics. The skipper and the officer in charge of the watch shall cooperate closely with the pilot and maintain an accurate check of the vessel's position and movement.

6 Vessels engaged in fishing or searching for fish

6.1 In addition to the principles enumerated in paragraph 4, the following factors shall be considered and properly acted upon by the officer in charge of the watch:

.1 other vessels engaged in fishing and their gear, own vessel's manoeuvring characteristics, particularly its stopping distance and the diameter of turning circle at sailing speed and with the fishing gear overboard;

.2 safety of the crew on deck;

.3 stability and freeboard caused by exceptional forces resulting from fishing operations, catch handling and stowage, and unusual sea and weather conditions;

.4 the proximity of offshore structures, with special regard to the safety zones; and

.5 wrecks and other underwater obstacles which could be hazardous for fishing gear.

6.2 When stowing the catch, attention shall be given to the essential requirements for adequate freeboard, adequate stability and watertight integrity at all times during the voyage to the landing port, taking into consideration consumption of fuel and stores, risk of adverse weather conditions and, especially in winter, risk of ice accretion on or above exposed decks in areas where ice accretion is likely to occur.

7 Anchor watch

The skipper shall ensure, with a view to the safety of the vessel and the crew, that a proper watch is maintained at all times from the wheelhouse or deck on fishing vessels at anchor.

8 Radio watchkeeping

The skipper shall ensure that an adequate radio watch is maintained while the vessel is at sea, on appropriate frequencies, taking into account the requirements of the Radio Regulations.

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ANNEX 2

DRAFT STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR FISHING VESSEL PERSONNEL (STCW-F) CODE

Part A

Mandatory standards regarding provisions of the STCW-F Convention and its annex

Introduction

1 This part of the STCW-F Code contains mandatory provisions to which specific reference is made in the annex to the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995, hereinafter referred to as the STCW-F Convention. These requirements provide the minimum standards required to be maintained by Parties in order to give full and complete effect to the Convention.

2 Also contained in this part are standards of competence required to be demonstrated by candidates for the issue and revalidation of certificates of competency under the provisions of the STCW-F Convention. The abilities specified in the standards of competence are grouped, as appropriate, under the following seven functions:*

.1-F Navigation
.2-F Catch handling and stowage
.3-F Controlling the operation of the vessel and care for persons on board
.4-F Marine engineering
.5-F Electrical, electronic and control engineering
.6-F Maintenance and repair
.7-F Radiocommunications

at the following levels of responsibility:

.1 Management level
.2 Operational level
.3 Support level

Functions and levels of responsibility are identified by the subtitle in the tables of standards of competence given in chapter II of this part. The scope of the function at the level of responsibility stated in a subtitle is defined by the abilities listed under it in column 1 of the table. The meaning of "function" and "level of responsibility" is defined in general terms in section A-I/1 below.

3 The numbering of the sections of this part corresponds with the numbering of the regulations contained in the annex to the STCW-F Convention. The text of the sections may be divided into numbered parts and paragraphs, but such numbering is unique to that text alone.

* The suffix "-F" is aimed at making a distinction between the functions stipulated in the STCW Code and STCW-F Code.

CHAPTER I
Standards regarding general provisions

Section A-I/1
Definitions

1 The definitions and clarifications contained in article II and regulation I/1 apply equally to the terms used in parts A and B of this Code. In addition, the following supplementary definitions apply only to this Code:

.1 Standard of competence means the level of proficiency to be achieved for the proper performance of functions on board vessels in accordance with the internationally agreed criteria as set forth herein and incorporating prescribed standards or levels of knowledge, understanding and demonstrated skill.

.2 Management level means the level of responsibility associated with:

.1 serving as skipper, chief engineer officer or second engineer officer on board a fishing vessel; and

.2 ensuring that all functions within the designated area of responsibility are properly performed.

.3 Operational level means the level of responsibility associated with:

.1 serving as officer in charge of a navigational or engineer watch or as radio operator on board a fishing vessel; and

.2 maintaining direct control over the performance of all functions within the designated area of responsibility in accordance with proper procedures and under the direction of an individual serving in the management level for that area of responsibility.

.4 Support level means the level of responsibility associated with performing assigned tasks, duties or responsibilities on board a fishing vessel under the direction of an individual serving in the operational or management level.

.5 Evaluation criteria are the entries appearing in column 4 of the "Specification of Minimum Standard of Competence" tables in part A and provide the means for an assessor to judge whether or not a candidate can perform the related tasks, duties and responsibilities.

Section A-I/2
Application

(No provisions)

Section A-I/3
Certificates and endorsements

1 Where, as provided in regulation I/3, paragraph 2, the certificate shall be issued in the format 1-3, as shown below.

Format 1

The format used to attest the issue of a certificate shall be as shown below, provided that the words "or until the date of expiry of any extension of the validity of this certificate as may be shown overleaf" appearing on the front of the form and the provisions for recording extension of the validity appearing on the back of the form shall be omitted where the certificate is required to be replaced upon its expiry.

(Official seal)

(COUNTRY)

CERTIFICATE ISSUED UNDER THE PROVISIONS OF THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR FISHING VESSEL PERSONNEL, 1995

The Government of . . . . . certifies that the holder of this certificate has been found duly qualified in accordance with the provisions of regulation . . . . . of the above Convention and has been found competent to serve as specified below, subject to any limitations indicated until . . . . . or until the date of expiry of any extension of the validity of this certificate as may be shown overleaf.
The lawful holder of this certificate may serve in the following capacity or capacities:

CAPACITY	LIMITATIONS APPLYING (IF ANY)

Certificate No. . . . . issued on . . . . . .

(Official seal)

. . . . . .

Signature of duly authorized official

. . . . . .
Name of duly authorized official

Date of birth of the holder of the certificate . . . . . .

Signature of the holder of the certificate . . . . . .

Photograph of the holder of the certificate

The validity of this certificate is hereby extended until . . . . . .

(Official seal)

. . . . . .
Signature of duly authorized official
Date of revalidation . . . . . .
. . . . . .
Name of duly authorized official

The validity of this certificate is hereby extended until . . . . . .

(Official seal)

. . . . . .
Signature of duly authorized official
Date of revalidation . . . . . .
. . . . . .
Name of duly authorized official

Format 2

The form used to attest the issue of a certificate shall be as shown below, provided that the words "or until the date of expiry of any extension of the validity of this endorsement as may be shown overleaf" appearing on the front of the form and the provisions for recording extension of the validity appearing on the back of the form shall be omitted where the endorsement is required to be replaced upon its expiry.

(Official seal)

(COUNTRY)

ENDORSEMENT ATTESTING THE ISSUE OF A CERTIFICATE UNDER THE PROVISIONS OF THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR FISHING VESSEL PERSONNEL, 1995

The Government of . . . . . certifies that certificate No. . . . . has been issued to . . . . . who has been found duly qualified in accordance with the provisions of regulation . . . . . of the above Convention and has been found competent to serve as specified below, subject to any limitations indicated until . . . . . or until the date of expiry of any extension of the validity of this endorsement as may be shown overleaf.
The lawful holder of this endorsement may serve in the following capacity or capacities specified in the applicable safe manning requirements of the Administration:

CAPACITY	LIMITATIONS APPLYING (IF ANY)

Endorsement No. . . . . issued on . . . . . .

(Official seal)

. . . . . .
Signature of duly authorized official

. . . . . .
Name of duly authorized official

Date of birth of the holder of the certificate . . . . . .

Signature of the holder of the certificate . . . . . .

Photograph of the holder of the certificate

The validity of this endorsement is hereby extended until . . . . . . *(Official seal)* . . . . . . *Signature of duly authorized official* Date of revalidation . . . . *Name of duly authorized official*
The validity of this endorsement is hereby extended until . . . . . . *(Official seal)* . . . . . . *Signature of duly authorized official* Date of revalidation . . . . *Name of duly authorized official*

Format 3

The form used to attest the recognition of a certificate shall be as shown below, except that the words "or until the date of expiry of any extension of the validity of this endorsement as may be shown overleaf" appearing on the front of the form and the provisions for recording extension of the validity appearing on the back of the form shall be omitted where the endorsement is required to be replaced upon its expiry.

(Official Seal)

(COUNTRY)

ENDORSEMENT ATTESTING THE RECOGNITION OF A CERTIFICATE UNDER THE PROVISIONS OF THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR FISHING VESSEL PERSONNEL, 1995

The Government of . . . . . certifies that Certificate No. . . . . issued to . . . . . by or on behalf of the Government of . . . . . is duly recognized in accordance with the provisions of regulation I/7 of the above Convention, and the lawful holder is authorized to serve as specified below, subject to any limitations indicated until . . . . . or until the date of expiry of any extension of the validity of this endorsement as may be shown overleaf.
The lawful holder of this endorsement may serve in the following capacity or capacities specified in the applicable safe manning requirements of the Administration:

CAPACITY	LIMITATIONS APPLYING (IF ANY)

Endorsement No. . . . . issued on . . . . . .
(Official Seal)

. . . . . .
Signature of duly authorized official

. . . . . .
Name of duly authorized official

Date of birth of the holder of the certificate . . . . . .

Signature of the holder of the certificate . . . . . .

Photograph of the holder of the certificate

The validity of this endorsement is hereby extended until . . . . . .

(Official seal)

. . . . . . *Signature of duly authorized official* Date of revalidation . . . . *Name of duly authorized official*
The validity of this endorsement is hereby extended until . . . . . . *(Official seal)* . . . . . . *Signature of duly authorized official* Date of revalidation . . . . *Name of duly authorized official*

Section A-I/4
Control procedures

(No provisions)

Section A-I/5
Communication of information

(No provisions)

Section A-I/6
Administration of certification arrangements

(No provisions)

Section A-I/7
Recognition of certificates

(No provisions)

Section A-I/8
Transitional provisions

(No provisions)

Section A-I/9
Dispensation

(No provisions)

Section A-I/10
Equivalents

(No provisions)

Section A-I/11
Use of simulators

General performance standards for simulators used in training

1 Each Party shall ensure that any simulator used for simulator-based training shall:

.1 be suitable for the selected objectives and training tasks;

.2 be capable of simulating the operating capabilities of shipboard equipment concerned, to a level of physical realism appropriate to training objectives, and include the capabilities, limitations and possible errors of such equipment;

.3 have sufficient behavioural realism to allow a trainee to acquire the skills appropriate to the training objectives;

.4 provide a controlled operating environment, capable of producing a variety of conditions, which may include emergency, hazardous or unusual situations relevant to the training objectives;

.5 provide an interface through which a trainee can interact with the equipment, the simulated environment and, as appropriate, the instructor; and

.6 permit an instructor to control, monitor and record exercises for the effective debriefing of the trainees.

General performance standards for simulators used in assessment of competence

2 Each Party shall ensure that any simulator used for the assessment of competence required under the Convention or for any demonstration of continued proficiency so required shall:

.1 be capable of satisfying the specified assessment objectives;

.2 be capable of simulating the operational capabilities of the shipboard equipment concerned to a level of physical realism appropriate to the assessment objectives, and include the capabilities, limitations and possible errors of such equipment;

.3 have sufficient behavioural realism to allow a candidate to exhibit the skills appropriate to the assessment objectives;

.4 provide an interface through which a candidate can interact with the equipment and simulated environment;

.5 provide a controlled operating environment, capable of producing a variety of conditions, which may include emergency, hazardous or unusual situations relevant to assessment objectives; and

.6 permit an assessor to control, monitor and record exercises for the effective assessment of the performance of candidates.

Additional performance standards

3 In addition to meeting the basic requirements set out in paragraphs 1 and 2, simulation equipment to which this section applies shall meet the performance standards given below in accordance with their specific type.

Radar simulation

4 Radar simulation equipment shall be capable of simulating the operational capabilities of navigational radar equipment which meets all applicable performance standards adopted by the Organization and incorporate facilities to:

.1 operate in the stabilized relative-motion mode and sea- and ground-stabilized true-motion modes;

.2 model weather, tidal streams, current, shadow sectors, spurious echoes and other propagation effects, and generate coastlines, navigational buoys and search and rescue transponders; and

.3 create a real-time operating environment incorporating at least two own-vessel stations with ability to change the own vessel's course and speed, and include parameters for at least 20 target vessels and appropriate communication facilities.

Simulator training objectives

5 Each Party shall ensure that the aims and objectives of simulator-based training are defined within an overall training programme and that specific training objectives and tasks are selected so as to relate as closely as possible to shipboard tasks and practices.

Training procedures

6 In conducting simulator-based training, instructors shall ensure that:

.1 trainees are adequately briefed beforehand on the exercise objectives and tasks and are given sufficient planning time before the exercise starts;

.2 trainees have adequate familiarization time on the simulator and with its equipment before any training or assessment exercise commences;

.3 guidance given and exercise stimuli are appropriate to the selected exercise objectives and tasks and to the level of trainee experience;

.4 exercises are effectively monitored, supported as appropriate by audio and visual observation of trainee activity and pre- and post-exercise evaluation reports;

.5 trainees are effectively debriefed to ensure that training objectives have been met and that operational skills demonstrated are of an acceptable standard;

.6 the use of peer assessment during debriefing is encouraged; and

.7 simulator exercises are designed and tested so as to ensure their suitability for the specified training objectives.

Assessment procedures

7 Where simulators are used to assess the ability of candidates to demonstrate levels of competency, assessors shall ensure that:

.1 performance criteria are identified clearly and explicitly and are valid and available to the candidates;

.2 assessment criteria are established clearly and are explicit to ensure reliability and uniformity of assessment and to optimize objective minimum;

.3 candidates are briefed clearly on the tasks and/or skills to be assessed and on the tasks and performance criteria by which their competency will be determined;

.4 assessment of performance takes into account normal operating procedures and any behavioural interaction with other candidates on the simulator or with simulator staff;

.5 scoring or grading methods to assess performance are used with caution until they have been validated; and

.6 the prime criterion is that a candidate demonstrates the ability to carry out a task safely and effectively to the satisfaction of the assessor.

Section A-I/12
Medical standards

1 Parties, when establishing standards of medical fitness for fishing vessel personnel as required by regulation I/12, shall adhere to the minimum in-service eyesight standards set out in table A-I/12 and take into account the criteria for physical and medical fitness set out in paragraph 2. They should also take into account the guidance given in section B-I/12 of this Code and [joint ILO/IMO Guidelines on the medical examination of fishing vessel personnel].

These standards may, to the extent determined by the Party without prejudice to the safety of the fishing vessel personnel or the fishing vessel, differentiate between those persons seeking to start a career at sea and those fishing vessel personnel already serving at sea and between different functions on board, bearing in mind the different duties of fishing vessel personnel. They shall also take into account any impairment or disease that will limit the ability of the fishing vessel personnel to effectively perform his/her duties during the validity period of the medical certificate.

2 The standards of physical and medical fitness established by the Party shall ensure that fishing vessel personnel satisfy the following criteria:

.1 have the physical capability, taking into account paragraph 5 below to fulfil all the requirements of the basic safety training as required by chapter III section A-III/1;

.2 demonstrate adequate hearing and speech to communicate effectively and detect any audible alarms;

.3 have no medical condition, disorder or impairment that will prevent the effective and safe conduct of their routine and emergency duties on board during the validity period of the medical certificate;

.4 are not suffering from any medical condition likely to be aggravated by service at sea or to render the fishing vessel personnel unfit for such service or to endanger the health and safety of other persons on board; and

.5 are not taking any medication that has side effects that will impair judgment, balance or any other requirements for effective and safe performance of routine and emergency duties on board.

3 Medical fitness examinations of fishing vessel personnel shall be conducted by appropriately qualified and experienced medical practitioners recognized by the Party.

4 Each Party shall establish provisions for recognizing medical practitioners. A register of recognized medical practitioners shall be maintained by the Party and made available to other Parties, companies and fishing vessel personnel on request.

5 Each Party shall provide guidance for the conduct of medical fitness examinations and issuing of medical certificates the guidance given in section B-I/12 of this Code and [joint ILO/IMO guidelines on the medical examination of fishing vessel personnel]. Each Party shall determine the amount of discretion given to recognized medical practitioners on the application of the medical standards, bearing in mind the different duties of fishing vessel personnel, except that there shall not be discretion with respect to the minimum eyesight standards for distance vision aided, near/immediate vision and colour vision in table A-I/12 for fishing vessel personnel in the deck department required to undertake lookout duties. A Party may allow discretion on the application of these standards with regard to fishing vessel personnel in the engine department, on the condition that fishing vessel personnel's combined vision fulfils the requirements set out in table A-I/12.

6 Each Party shall establish processes and procedures to enable fishing vessel personnel who, after examination, do not meet the medical fitness standards or have had a limitation imposed on their ability to work, in particular with respect to time, field of work or operation area, to have their case reviewed in line with that Party's provisions for appeal.

7 The medical certificate provided for in regulation I/12, paragraph 3, shall include the following information at a minimum:

.1 Authorizing authority and the requirements under which the document is issued

.2 Fishing vessel personnel information

.1 Name: (last, first, middle)

.2 Date of birth: (day/month/year)

.3 Gender: (Male/Female)

.4 Nationality

.3 Declaration of the recognized medical practitioner

.1 Confirmation that identification documents were checked at the point of examination: Y/N

.2 Hearing meets the standards in section A-I/12? Y/N

.3 Unaided hearing satisfactory? Y/N

.4 Visual acuity meets standards in section A-I/12? Y/N

.5 Colour vision* meets standards in section A-I/12? Y/N

.1 Date of last colour vision test

.6 Fit for lookout duties? Y/N

.7 No limitations or restrictions on fitness? Y/N

If "N", specify limitations or restrictions

.8 Is the fishing vessel personnel free from any medical condition likely to be aggravated by service at sea or to render the fishing vessel personnel unfit for such service or to endanger the health of other persons on board?: Y/N

.9 Date of examination: (day/month/year)

.10 Expiry date of certificate: (day/month/year)

.4 Details of the issuing authority

.1 Official stamp (including name) of the issuing authority

.2 Signature of the authorized person

.5 Fishing vessel personnel's signature – confirming that the fishing vessel personnel has been informed of the content of the certificate and of the right to a review in accordance with paragraph 6 of section A-I/12

8 Medical certificates shall be in the official language of the issuing country. If the language used is not English, the text shall include a translation into that language.

* Note: Colour vision assessment only needs to be conducted every six years.

Table A-I/12

Minimum in-service eyesight standards for fishing vessel personnel

STCW-F Convention regulation	**Category of fishing vessel personnel**	**Distance vision aided[1]**		**Near/immediate vision**	**Colour Vision[3]**	**Visual Fields[4]**	**Night Blindness[4]**	**Diplopia (double vision)[4]**
		One eye	Other eye	Both eyes together, aided or unaided				
II/1 II/2 II/3 II/4 II/7	Skippers, deck officers and fishing vessel personnel forming part of a navigational watch	0.5[2]	0.5	Vision required for ship's navigation (e.g. chart and nautical publication reference, use of bridge instrumentation and equipment, and identification of aids to navigation)	See Note 6	Normal Visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident
II/5 II/5-1 II/5-2 II/7	All engineer officers and other fishing vessel personnel forming part of an engine-room watch	0.4	0.4 (see Note 5)	Vision required to read instruments in close proximity, to operate equipment, and to identify systems/ components as necessary	See Note 7	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident
II/6 II/8	GMDSS Radio operators	0.4	0.4	Vision required to read instruments in close proximity, to operate equipment and to identify systems/ components as necessary	See Note 7	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident

Notes:

1 Values given in Snellen decimal notation.

2 A value of at least 0.7 in one eye is recommended to reduce the risk of undetected underlying eye disease.

3 As defined in the *International Recommendations for Colour Vision Requirements for Transport* by the Commission Internationale de l'Eclairage (CIE-143-2001 including any subsequent versions).

4 Subject to assessment by a clinical vision specialist where indicated by initial examination findings.

5 Engine department personnel shall have a combined eyesight vision of at least 0.4.

6 CIE colour vision standard 1 or 2. Other equivalent confirmatory test methods currently recognized by the Administration may continue to be used.

7 CIE colour vision standard 1, 2 or 3. Other equivalent confirmatory test methods currently recognized by the Administration may continue to be used.

CHAPTER II

Standards regarding certification of skippers, officers, engineers and radio operators

Section A-II/1

Mandatory minimum requirements for certification of skippers on fishing vessels of 24 metres in length and over operating in unlimited waters

Standard of competence

1 Every candidate for certification as skippers on fishing vessels of 24 metres in length and over operating in unlimited waters shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/1.

2 The minimum knowledge, understanding and proficiency required for certification is listed in column 2 of table A-II/1. This incorporates, expands and extends in depth the subjects listed in column 2 of table A-II/2 for officers in charge of a navigational watch.

3 The level of knowledge of the subjects listed in column 2 of table A-II/1 shall be sufficient to enable the candidate to serve in the capacity of skipper.

4 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/1.

Table A-II/1

Specification of minimum standard of competence for skippers on fishing vessels of 24 metres in length and over operating in unlimited waters

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Navigation at the management level			
Plan a voyage and conduct navigation	*Navigation* Voyage planning and navigation for all conditions: .1 by acceptable methods of determining ocean tracks .2 within restricted waters .3 where applicable, in ice .4 in restricted visibility .5 where applicable, in traffic separation schemes .6 in areas affected by tides or currents .7 in all meteorological conditions	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using: chart catalogues, charts, nautical publications and ship particulars	The equipment, charts and nautical publications required for the voyage are enumerated and appropriate to the safe conduct of the voyage The reasons for the planned route are supported by facts and statistical data obtained from relevant sources and publications Positions, courses, distances and time calculations are correct within accepted accuracy standards for navigational equipment All potential navigational hazards are accurately identified
Determine position and the accuracy of resultant position fix by any means	Position determination: .1 by celestial observations .2 by terrestrial observations, including the ability to use bearings from landmarks and aids to navigation such	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	The primary method chosen for fixing the vessel's position is the most appropriate to the prevailing circumstances and conditions The fix obtained by celestial observations is within accepted accuracy levels

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	as lighthouses, beacons and buoys in conjunction with appropriate charts, notices to mariners and other publications to assess the accuracy of the resulting position fix .3 by using, to the satisfaction of the Party, electronic navigational aids as provided in fishing vessels, with specific reference to knowledge of their operating principles, limitations, sources of error, detection of misrepresentation of information and methods of correction to obtain accurate position fixing	.3 approved simulator training, where appropriate .4 approved laboratory equipment training using: (a) charts, nautical almanac, plotting sheets, chronometer, sextant and a calculator (b) charts, nautical publications and navigational instruments (azimuth mirror, sextant, log, sounding equipment, compass) and manufactures manuals (c) radar, terrestrial electronic position-fixing systems, satellite navigation systems and appropriate nautical charts and publications	The fix obtained by terrestrial observations is within accepted accuracy levels The accuracy of the resulting fix is properly assessed The fix obtained by the use of electronic navigational aids is within the accuracy standards of the systems in use. The possible errors affecting the accuracy of the resulting position are stated and methods of minimizing the effects of system errors on the resulting position are properly applied

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Determine and allow for compass errors	*Compasses* Ability to use terrestrial and celestial means to determine and apply the errors of the compasses	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using: celestial observations, terrestrial bearings and comparison between magnetic and gyro-compasses	The method and frequency of checks for errors of compasses ensures accuracy of information
Coordinate search and rescue operations	*Search and rescue* Thorough knowledge of and ability to apply the procedures in the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using:	The plan for coordinating search and rescue operations is in accordance with international guidelines and standards Radiocommunications are established and correct communication procedures are followed at all stages of the search and rescue operations

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
		relevant publications, charts, meteorological data, particulars of vessels involved, radiocommunication equipment and other available facilities	
Establish watchkeeping arrangements and procedures	*Watchkeeping* .1 thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, specially annexes II and IV concerned with safe navigation .2 demonstrate knowledge of basic principles to be observed in keeping a navigational watch as prescribed in chapter [IV]	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved simulator training, where appropriate	Watchkeeping arrangements and procedures are established and maintained in compliance with international regulations and guidelines so as to ensure the safety of navigation, protection of the marine environment and safety of the vessel and persons on board
Forecast weather and oceanographic conditions	*Meteorology and oceanography* .1 knowledge of meteorological instruments and their application .2 ability to apply meteorological information available .3 knowledge of characteristics of various weather systems, including,	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved laboratory equipment training	The likely weather conditions predicted for a determined period are based on all available information Actions taken to maintain safety of navigation minimize any risk to safety of the vessel Reasons for intended action are backed by statistical data and

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	at the discretion of the Party, tropical revolving storms and avoidance of storm centres and the dangerous quadrants .4 knowledge of weather conditions, such as fog, icebergs, ice accretion and freezing spray liable to endanger the vessel .5 ability to use appropriate navigational publications on tides and currents .6 ability to calculate times and heights of high and low water and estimate the direction and rate of tidal streams		observations of the actual weather conditions
Respond to navigational emergencies	*Emergency procedures* .1 precautions when beaching a vessel .2 action to be taken prior to, and after, grounding .3 action to be taken when the gear becomes fast to the ground or other obstruction .4 floating a grounded vessel,	Assessment of evidence obtained from examination or practical instruction, in-service experience and practical drills in emergency procedures	The type and scale of any problem is promptly identified and decisions and actions minimize the effects of any malfunction of the vessel's systems Communications are effective and comply with established procedures Decisions and actions maximize safety of persons on board

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	with and without assistance .5 action to be taken following a collision .6 temporary plugging of leaks .7 measures for the protection and safety of crew in emergencies .8 limiting damage and salving the vessel following a fire or explosion .9 abandoning ship .10 emergency steering, rigging, and use of jury steering and the means of rigging a jury rudder, where practicable .11 rescuing persons from a ship in distress or from a wreck .12 man overboard procedures .13 towing and being towed		
Fishing vessel manoeuvring and handling	*Fishing vessel manoeuvring and handling* Manoeuvring and handling of a fishing vessel in all conditions including:	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience	All decisions concerning berthing and anchoring are based on a proper assessment of the vessel's manoeuvring and engine characteristics and the forces to be expected while

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.1 berthing, unberthing and anchor work under various conditions of wind and tide .2 manoeuvring in shallow water .3 management and handling of fishing vessels in heavy weather, including appropriate speed, particularly in following and quartering seas, assisting a vessel or aircraft in distress, means of keeping an unmanageable vessel out of a sea trough and lessening drift .4 manoeuvring the vessel during fishing operations, with special regard to factors which could adversely affect the vessel's safety during such operations .5 precautions in manoeuvring for launching rescue boats or survival craft in bad weather .6 methods of taking on board survivors from rescue boats or survival craft .7 where applicable, practical measures to be	.2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved manned scale ship model, where appropriate	berthed alongside or lying at anchor While under way, a full assessment is made of possible effects of shallow and restricted waters, ice, banks, tidal conditions, passing vessels and own vessel's bow and stern wave so that the vessel can be safely manoeuvred under various conditions of loading and weather

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	taken when navigating in ice, icebergs or conditions of ice accretion on board the vessel .8 the use of, and manoeuvring in, traffic separation schemes .9 the importance of navigating at reduced speed to avoid damage caused by own vessel's bow or stern wave .10 transhipment at sea of catch and other supplies to factory ships and other vessels .11 refuelling at sea		
Fishing vessel power plants	*Fishing vessel power plants* .1 operating principles of marine power plants in fishing vessels .2 vessel's auxiliary machinery .3 general knowledge of marine engineering terms	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	Plant, auxiliary machinery and equipment is operated in accordance with technical specifications and within safe operating limits at all times

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making Note: Training and assessment in the use of ARPA is not required for those who serve exclusively on vessels not fitted with ARPA. This limitation shall be reflected in the endorsement issued to the fishing vessel personnel concerned	An appreciation of system errors and thorough understanding of the operational aspects of navigational systems Blind pilotage planning Evaluation of navigational information derived from all sources, including radar and ARPA, in order to make and implement command decisions for collision avoidance and for directing the safe navigation of the vessel The interrelationship and optimum use of all navigational data available for conducting navigation	Examination and assessment of evidence obtained from approved ARPA simulator and one or more of the following: .1 approved in-service experience .2 approved simulator training, where appropriate .3 approved laboratory equipment training	Information obtained from navigation equipment and systems is correctly interpreted and analysed, taking into account the limitations of the equipment and prevailing circumstances and conditions Action taken to avoid a close encounter or collision with another vessel is in accordance with the International Regulations for Preventing Collisions at Sea, 1972
Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision-making Note: Training and assessment in the use of ECDIS is not required for those who serve exclusively on vessels not fitted with ECDIS. This limitation shall be reflected in the endorsement issued	Management of operational procedures, system files and data, including: .1 manage procurement, licensing and updating of chart data and system software to conform to established procedures .2 system and information updating, including the ability to update ECDIS system	Assessment of evidence obtained from one of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved ECDIS simulator training	Operational procedures for using ECDIS are established, applied and monitored Actions taken to minimize risk to safety of navigation

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
to the fishing vessel personnel concerned	version in accordance with vendor's product development .3 create and maintain system configuration and backup files .4 create and maintain log files in accordance with established procedures .5 create and maintain route plan files in accordance with established procedures .6 use ECDIS logbook and track history functions for inspection of system functions, alarm settings and user responses Use ECDIS playback functionality for passage review, route planning and review of system functions		
Maritime communication for safe navigation	*English language* Adequate knowledge of the English language enabling the skipper to use charts and other nautical publications, to understand meteorological information and measures	Assessment of evidence obtained from examination or practical instruction	English language navigational publications and messages relevant to the safety of the vessel are correctly interpreted or drafted Communications are clear and understood

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	concerning the vessel's safety and operation, and to communicate with other vessels or coast stations. Ability to understand and use the IMO Standard Marine Communication Phrases		
Transmit and receive information by visual signalling	*Visual signalling* Ability to use the International Code of Signals Ability to transmit and receive, by Morse light, distress signal SOS as specified in annex IV of the International Regulations for Preventing Collisions at Sea, 1972, and appendix 1 of the International Code of Signals, and visual signalling of single-letter signals as also specified in the International Code of Signals	Assessment of evidence obtained from examination or practical instruction and/or simulation	Communications within the operator's area of responsibility are consistently successful
Function: Catch handling and stowage at the management level			
Catch handling and stowage	*Catch handling and stowage* .1 the stowage and securing of the catch on board vessels, including fishing gear .2 loading and discharging operations, with special regard to heeling moments from gear and catch	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	The stowage and securing of the catch ensure that stability conditions remain within safe limits at all times during the voyage

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
		.3 approved simulator training, where appropriate	
Function: Controlling the operation of the vessel and care for persons on board at the management level			
Control trim and stability	*Fishing vessel construction and stability* .1 general knowledge of principal structural members of a vessel and the proper names of the various parts .2 knowledge of the theories and factors affecting trim and stability and measures necessary to preserve safe trim and stability .3 demonstrate the application of stability data, stability and trim tables and precalculated operating conditions, and the use of the vessel's stability booklet .4 knowledge of effects of free surfaces and ice accretion, where applicable .5 knowledge of effects of water on deck	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate Using: stability and trim tables, diagrams	Stability conditions are maintained within safe limits at all times Actions to ensure and maintain the watertight integrity of the vessel are in accordance with accepted practice

Column 1 **Competence**	Column 2 **Knowledge, understanding and proficiency**	Column 3 **Methods for demonstrating competence**	Column 4 **Criteria for evaluating competence**
	.6 knowledge of the significance of weathertight and watertight integrity .7 knowledge of internationally recognized stability criteria and conditions		
Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea and the protection of the marine environment	*Maritime law* A knowledge of international maritime law as embodied in the international agreements and conventions as they affect the specific obligations and responsibilities of the skipper, particularly those concerning safety and the protection of the marine environment Particular regard shall be paid to the following subjects: .1 certificates and other documents required to be carried on board fishing vessels by international conventions, how they may be obtained and the period of their legal validity .2 responsibilities under a relevant international convention related to the safety of fishing vessels	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	Procedures for monitoring operations and maintenance comply with legislative requirements Potential non-compliance is promptly and fully identified Planned renewal and extension of certificates ensures continued validity of surveyed items and equipment

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.3 responsibilities under the relevant requirements of chapter V of the International Convention for the Safety of Life at Sea, 1974 .4 responsibilities under the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 thereto .5 maritime declarations of health and the requirements of the international health regulations .6 responsibilities under the Convention on International Regulations for Preventing Collisions at Sea, 1972 .7 responsibilities under other international instruments affecting the safety of the vessel and crew The extent of knowledge of national maritime legislation is left to the discretion of the Party, but shall include national		

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	arrangements for implementing applicable international agreements and conventions .8 knowledge of relevant international instruments on safety and health of personnel on board fishing vessels .9 the principles and international standards applicable to the responsible conservation, management and development of living aquatic resources .10 knowledge of key international instruments and tools related to the fight against illegal, unreported and unregulated (IUU) fishing		
Maintain safety of the vessel's crew and the operational condition of life-saving and fire-fighting appliances	*Fire prevention and fire-fighting appliances* .1 organization of fire drills .2 classes and chemistry of fire .3 fire-fighting systems .4 understanding of action to be taken in the event of fire,	Assessment of evidence obtained from examination or approved training	Procedures for monitoring fire detection and safety systems ensure that all alarms are detected promptly and acted upon in accordance with established emergency procedures

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	includes fire involving oil systems .5 knowledge of provisions concerning fire-fighting equipment .6 knowledge of fire prevention measures *Life-saving* .1 thorough knowledge of life-saving appliances provided on fishing vessels. .2 ability to organize abandon ship drills and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio life-saving appliances, EPIRBs, SARTs, immersion suits and thermal protective aids .3 actions to be taken to protect and safeguard all persons on board in emergencies .4 actions to limit damage and salve the vessel following a fire, explosion, collision or grounding Maintenance		

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.1 maintenance of operational condition of life-saving, fire-fighting and other safety systems		
Organize and manage the provision of medical care on board	*Medical care* .1 knowledge of medical first aid procedures .2 knowledge of relevant procedures to provide adequate medical care on board .3 knowledge of procedures for obtaining medical advice by radio Thorough knowledge of the use of the following publications: .1 International Medical Guide for Ships or equivalent national publications .2 medical section of the International Code of Signals	Assessment of evidence obtained from approved training	Action taken and procedures following correctly apply and make full use of advice available

Section A-II/2
Mandatory minimum requirements for certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters

Standard of competence

1 Every candidate for certification as officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/2.

2 The minimum knowledge, understanding and proficiency required for certification is listed in column 2 of table A-II/2.

3 The level of knowledge of the subjects listed in column 2 of table A-II/2 shall be sufficient for officers of the watch to carry out their watchkeeping duties.

4 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/2.

Onboard training

5 Every candidate for certification as officer in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters whose seagoing service, in accordance with paragraph 2.2 of regulation II/2, forms part of a training programme approved as meeting the requirements of this section shall follow an approved programme of onboard training which:

.1 ensures that, during the required period of seagoing service, the candidate receives systematic practical training and experience in the tasks, duties and responsibilities of an officer in charge of a navigational watch;

.2 is closely supervised and monitored by qualified officers aboard the vessels in which the approved seagoing service is performed; and

.3 is adequately documented in a training record book or a similar document.

Table A-II/2

Specification of minimum standard of competence for officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited waters

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Navigation at the operational level			
Plan and conduct a passage and determine position	*Celestial navigation* Ability to use a celestial body to determine compass errors *Terrestrial and coastal navigation* Ability to determine the vessel position by the use of: .1 landmarks .2 aids to navigation, including lighthouses, beacons and buoys .3 dead reckoning, taking into account winds, tides, currents, speed by propeller revolutions per minute and by log Thorough knowledge of and ability to use navigational charts and publications such as sailing directions, tide tables, notices to mariners and radio navigational warnings Electronic systems of position fixing and navigation Ability to determine the vessel's position by the use of	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using: chart catalogues, charts, nautical publications, radio navigational warnings, sextant, azimuth mirror, electronic navigation equipment, echo sounding equipment, compass	The information obtained from nautical charts and publications is relevant, interpreted correctly and properly applied. All potential navigational hazards are accurately identified The primary method of fixing the vessel's position is the most appropriate to the prevailing circumstances and conditions The position is determined within the limits of acceptable instrument/system errors The reliability of the information obtained from the primary method of position fixing is checked at appropriate intervals Calculations and measurements of navigational information are accurate The charts selected are the largest scale suitable for the area of navigation and charts and publications are

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	electronic navigational aids to the satisfaction of the Party *Magnetic and gyro-compasses* Care and use of compasses and associated equipment *Meteorology* .1 knowledge of shipborne meteorological instruments and their application .2 knowledge of the characteristics of the various weather systems		corrected in accordance with the latest information available Performance checks and tests to navigation systems comply with manufacturer's recommendations and good navigational practice Errors in magnetic and gyro-compasses are determined and correctly applied to courses and bearings Measurements and observations of weather conditions are accurate and appropriate to the passage

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, specially annexes II and IV concerned with safe navigation Demonstrate knowledge of the content of the basic principles to be observed in keeping a navigational watch as prescribed in chapter IV	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	The conduct, handover and relief of the watch conforms with accepted principles and procedures A proper lookout is maintained at all times and in such a way as to conform to accepted principles and procedures Lights, shapes and sound signals conform with the requirements contained in the International Regulations for Preventing Collisions at Sea, 1972, and are correctly recognized The frequency and extent of monitoring of traffic, the vessel and the environment conform with accepted principles and procedures A proper record is maintained of the movements and activities relating to the navigation of the vessel Responsibility for the safety of navigation is clearly defined at all times, including periods when the master is on the bridge and while under pilotage

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Use of radar to maintain safety of navigation	*Radar navigation* Knowledge of the fundamentals of radar and ability in the operation and use of radar, and in the interpretation and analysis of information obtained from the equipment* including the following: .1 factors affecting performance and accuracy .2 setting up and maintaining displays .3 detection of misrepresentation of information, false echoes, sea return .4 range and bearing .5 identification of critical echoes .6 detection of course and speed of other ships .7 time and distance of closest approach of crossing, meeting or overtaking vessels .8 effect of changes in own vessel's course or speed or both .9 use of manoeuvring board .10 application of the International	Assessment of evidence obtained from examination or approved radar simulator training plus in-service experience	Information obtained from radar is correctly interpreted and analysed taking into account the limitations of the equipment and prevailing circumstances and conditions Action taken to avoid a close encounter or collision with other vessels is in accordance with the International Regulations for Preventing Collisions at Sea, 1972 Decisions to amend course and/or speed are both timely and in accordance with accepted navigation practice Adjustments made to the vessel's course and speed maintain safety of navigation Communication is clear, concise and acknowledged at all times in a seamanlike manner Manoeuvring signals are made at the appropriate time and are in accordance with the International Regulations for Preventing Collisions at Sea, 1972

* Reference is made to resolution 2 of the 1995 STCW-F Conference.

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Regulations for Preventing Collisions at Sea, 1972		
Respond to a distress signal at sea	*Search and rescue* Adequate knowledge of search and rescue procedures based on the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual	Assessment of evidence obtained from examination or practical instruction and/or simulation	The distress or emergency signal is immediately recognized Contingency plans and instructions in standing orders are implemented and complied with
Use the IMO Standard Maritime Communication Phrases and use English in written and oral forum	*English language* Adequate knowledge of the English language enabling the officer to use charts and other nautical publications, to understand meteorological information and messages concerning a vessel's safety and operation. Ability to understand and use the IMO Standard Marine Communication Phrases	Assessment of evidence obtained from examination or practical instruction	English language navigational publications and messages relevant to the safety of the vessel are correctly interpreted or drafted Communications are clear and understood
Fishing vessel manoeuvring and handling	*Fishing vessel manoeuvring and handling* Basic knowledge of manoeuvring and handling a fishing vessel, including the following: .1 berthing, unberthing, anchoring and manoeuvring	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	Safe operating limits of ship propulsion, steering and power systems are not exceeded in normal manoeuvres Adjustments made to the vessel's course and speed maintain safety of navigation

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	alongside other vessels at sea .2 manoeuvring during fishing operations with special regard to factors which could adversely affect the vessel's safety during such operations .3 effects of wind, tide and current on ship handling .4 manoeuvring in shallow water .5 management of fishing vessels in heavy weather .6 rescuing persons and assisting a vessel or aircraft in distress .7 towing and being towed .8 man overboard procedure .9 where applicable, practical measures to be taken when navigating in ice or in conditions of ice accretion on board the vessel	.3 approved simulator training, where appropriate .4 approved training on a manned scale ship model where appropriate	
Use of radar and ARPA to maintain safety of navigation Note: Training and assessment in the use of ARPA is not required for those who serve exclusively on vessels not fitted	*Radar navigation* Knowledge of the fundamentals of radar and automatic radar plotting aids (ARPA) Ability to operate and to interpret and analyse information	Assessment of evidence obtained from approved radar simulator and ARPA simulator plus in-service experience	Information obtained from radar and ARPA is correctly interpreted and analysed, taking into account the limitations of the equipment and prevailing circumstances and conditions

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
with ARPA. This limitation shall be reflected in the endorsement issued to the fishing vessel personnel concerned	obtained from radar, including the following: Performance, including: .1 factors affecting performance and accuracy .2 setting up and maintaining displays .3 detection of misrepresentation of information, false echoes, sea return, etc., racons and SARTs Use, including: .1 range and bearing; course and speed of other vessels; time and distance of closest approach of crossing, meeting overtaking vessels .2 identification of critical echoes; detecting course and speed changes of other vessels; effect of changes in own vessel's course or speed or both .3 application of the International Regulations for Preventing Collisions at Sea, 1972 .4 plotting techniques and relative- and true-motion concepts		Action taken to avoid a close encounter or collision with other vessels is in accordance with the International Regulations for Preventing Collisions at Sea, 1972 Decisions to amend course and/or speed are both timely and in accordance with accepted navigation practice Adjustments made to the vessel's course and speed maintain safety of navigation Communication is clear, concise and acknowledged at all times in a seamanlike manner Manoeuvring signals are made at the appropriate time and are in accordance with the International Regulations for Preventing Collisions at Sea, 1972

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.5 parallel indexing Principal types of ARPA, their display characteristics, performance standards and the dangers of over-reliance on ARPA Ability to operate and to interpret and analyse information obtained from ARPA, including: .1 system performance and accuracy, tracking capabilities and limitations, and processing delays .2 use of operational warnings and system tests .3 methods of target acquisition and their limitations .4 true and relative vectors, graphic representation of target information and danger areas .5 deriving and analysing information, critical echoes, exclusion areas and trial manoeuvres		
Use of ECDIS to maintain the safety of navigation Note: Training and assessment in the use of ECDIS is not required for those	*Navigation using ECDIS* Knowledge of the capability and limitations of ECDIS operations, including:	Examination and assessment of evidence obtained from one or more of the following:	Monitors information on ECDIS in a manner that contributes to safe navigation Information obtained from ECDIS

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
who serve exclusively on vessels not fitted with ECDIS. This limitation shall be reflected in the endorsements issued to the fishing vessel personnel concerned	.1 thorough understanding of Electronic Navigational Chart (ENC) data, data accuracy, presentation rules, display options and other chart data formats .2 the dangers of over-reliance .3 familiarity with the functions of ECDIS required by performance standards in force Proficiency in operation, interpretation, and analysis of information obtained from ECDIS, including: .1 use of functions that are integrated with other navigation systems in various installations, including proper functioning and adjustment to desired settings .2 safe monitoring and adjustment of information, including own position, sea area display, mode and orientation, chart data displayed, route monitoring, user-created information layers, contacts (when interfaced with AIS and/or radar tracking) and radar overlay functions (when interfaced)	.1 approved training vessel experience .2 approved ECDIS simulator training	(including radar overlay and/or radar tracking functions, when fitted) is correctly interpreted and analysed, taking into account the limitations of the equipment, all connected sensors (including radar and AIS where interfaced), and prevailing circumstances and conditions Safety of navigation is maintained through Adjustments made to the vessel's course and speed through ECDIS-controlled track-keeping functions (when fitted) Communication is clear, concise and acknowledged at all times in a seamanlike manner

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.3 confirmation of vessel position by alternative means .4 efficient use of settings to ensure conformance to operational procedures, including alarm parameters for anti-grounding, proximity to contacts and special areas, completeness of chart data and chart update status, and backup arrangements .5 adjustment of settings and values to suit the present conditions .6 situational awareness while using ECDIS including safe water and proximity of hazards, set and drift, chart data and scale selection, suitability of route, contact detection and management, and integrity of sensors		

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Catch handling and stowage at operational level			
Catch handling and stowage	*Catch handling and stowage* Knowledge of safe handling and stowage of catch and the effect of these factors on the safety of the vessel	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	Handling and stowage of catch are carried out in accordance with safety rules/regulations, equipment operating instructions and shipboard stowage limitation
Function: Controlling the operation of the vessel and care for persons on board at the operational level			
Ensure compliance with pollution prevention requirements and the protection of the marine environment	*Prevention of pollution of the marine environment* Knowledge of the precautions to be observed to prevent pollution of the marine environment Knowledge of the impacts of fishing on the environment including pollution related to abandoned, lost or otherwise discarded fishing gear in the context of annex V to the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 thereto	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Procedures for monitoring shipboard operations and ensuring compliance with the requirements of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 thereto

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Understanding the importance of proactive measures to protect the marine environment		
Maintain seaworthiness of the ship	*Vessel stability* Ability to use stability data, stability and trim tables and precalculated operating conditions Knowledge of: .1 the effects of suspended weight on stability .2 the effects of fishing gear operations on stability .3 the risks of following and quartering seas *Fishing vessel construction* General knowledge of the principal structural members of a vessel Understanding of the fundamentals of watertight integrity	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	The stability conditions comply with the IMO intact stability criteria under all conditions of loading Actions to ensure and maintain the watertight integrity of the vessel are in accordance with accepted practice
Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* .1 knowledge of classes and chemistry of fire .2 knowledge of action to be taken in the event of fire	Assessment of evidence obtained from approved fire-fighting training and experience	The type and scale of the problem is promptly identified and initial actions conform with the emergency procedure and contingency plans for the vessel Evacuation, emergency shutdown

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.3 knowledge of fire prevention measures		and isolation procedures are appropriate to the nature of the emergency and are implemented promptly The order of priority, and the levels and timescales of making reports and informing personnel on board, are relevant to the nature of the emergency and reflect the urgency of the problem
Operate life-saving appliances	*Life-saving* Ability to direct abandon ship drills and knowledge of the operation of life-saving appliances and their equipment, including the two-way radio-telephone apparatus. Survival at sea techniques including participation in an approved survival at sea course	Assessment of evidence obtained from examination or approved training	Actions in responding to abandon ship and survival situations are appropriate to the prevailing circumstances and conditions and comply with accepted safety practices and standards
Medical aid	*Medical aid* Knowledge of first aid procedures. Practical application of medical guides and advice by radio	Assessment of evidence obtained from approved training	The identification of probable cause, nature and extent of injuries or conditions is prompt and treatment minimizes immediate threat to life
Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions and other relevant international instruments concerning safety of	Assessment of evidence obtained from examination or approved training	Legislative requirements relating to safety of life at sea and protection of the marine environment are correctly identified

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	life at sea and protection of the marine environment Basic working knowledge of relevant international instruments concerning the responsible conservation, fishing management, responsible fisheries and development of living aquatic resources as well as key international instruments related to the fight against illegal, unreported and unregulated (IUU) fishing Understanding of the requirements which crews shall comply with Understanding the importance of sustainable development of the fishing industry		

Section A-II/3
Mandatory minimum requirements for certification of skippers on fishing vessels of 24 metres in length and over operating in limited waters

Standard of competence

1 Every candidate for certification as skippers on fishing vessels of 24 metres in length and over operating in limited waters shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/3.

2 The minimum knowledge, understanding and proficiency required for certification is listed in column 2 of table A-II/3. This incorporates, expands and extends in depth the subjects listed in column 2 of table A-II/4 for officers in charge of a navigational watch.

3 The level of knowledge of the subjects listed in column 2 of table A-II/3 shall be sufficient to enable the candidate to serve in the capacity of skipper.

4 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/3.

Table A-II/3

Specification of minimum standard of competence for skippers on fishing vessels of 24 metres in length and over operating in limited waters

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Navigation at the management level			
Plan a voyage and conduct navigation	*Navigation* Voyage planning and navigation for all conditions: .1 by acceptable methods of determining ocean tracks .2 within restricted waters .3 where applicable, in ice .4 in restricted visibility .5 where applicable, in traffic separation schemes .6 in areas affected by tides or currents .7 in all meteorological conditions	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using: chart catalogues, charts, nautical publications and ship particulars	The equipment, charts and nautical publications required for the voyage are enumerated and appropriate to the safe conduct of the voyage The reasons for the planned route are supported by facts and statistical data obtained from relevant sources and publications Positions, courses, distances and time calculations are correct within accepted accuracy standards for navigational equipment All potential navigational hazards are accurately identified
Determine position and the accuracy of resultant position fix by any means	Position determination: .1 by terrestrial observations, including the ability to use bearings from landmarks and aids to navigation such as lighthouses, beacons and buoys in conjunction with appropriate charts, notices to mariners	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	The primary method chosen for fixing the vessel's position is the most appropriate to the prevailing circumstances and conditions The fix obtained by terrestrial observations is within accepted accuracy levels

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	and other publications to assess the accuracy of the resulting position fix .3 by using, to the satisfaction of the Party, modern ship electronic navigational aids as provided in fishing vessels concerned	.3 approved simulator training, where appropriate .4 approved laboratory equipment training using: (a) charts, nautical publications and navigational instruments (log, sounding equipment, compass) and manufactures manuals (b) radar, terrestrial electronic position-fixing systems, satellite navigation systems and appropriate nautical charts and publications	The accuracy of the resulting fix is properly assessed The fix obtained by the use of electronic navigational aids is within the accuracy standards of the systems in use. The possible errors affecting the accuracy of the resulting position are stated and methods of minimizing the effects of system errors on the resulting position are properly applied
Determine and allow for compass errors	*Compasses* Ability to use terrestrial means to determine and apply the errors of the compasses	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using:	The method and frequency of checks for errors of magnetic and gyro-compasses ensures accuracy of information

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
		terrestrial bearings and comparison between magnetic and gyro-compasses	
Coordinate search and rescue operations	*Search and rescue* Knowledge of search and rescue procedures	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using: relevant publications, charts, meteorological data, particulars of vessels involved, radiocommunication equipment and other available facilities	The plan for coordinating search and rescue operations is in accordance with international guidelines and standards Radiocommunications are established and correct communication procedures are followed at all stages of the search and rescue operations
Establish watchkeeping arrangements and procedures	*Watchkeeping* .1 thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions at Sea, 1972, specially annexes II and IV concerned with safe navigation	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved simulator training, where appropriate	Watchkeeping arrangements and procedures are established and maintained in compliance with international regulations and guidelines so as to ensure the safety of navigation, protection of the marine environment and safety of the vessel and persons on board

Column 1 Competence	Column 2 Knowledge, understanding and proficiency	Column 3 Methods for demonstrating competence	Column 4 Criteria for evaluating competence
	.2 demonstrate knowledge of the content, application and intent of the principles to be observed in keeping a navigational watch as prescribed in chapter IV .3 use of reporting in accordance with the general principles for ships reporting systems and with VTS procedures, where deemed appropriate by the Party		
Forecast weather and oceanographic conditions	*Meteorology and oceanography* .1 knowledge of meteorological instruments and their application .2 ability to apply meteorological information available .3 knowledge of characteristics of various weather systems affecting the limited waters concerned liable to endanger the vessel, at the discretion of the Party .4 knowledge of weather conditions affecting the limited waters concerned liable to endanger the vessel, at the discretion of the Party	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved laboratory equipment training	The likely weather conditions predicted for a determined period are based on all available information Actions taken to maintain safety of navigation minimize any risk to safety of the vessel Reasons for intended action are backed by statistical data and observations of the actual weather conditions Calculate times and heights of tides and estimate the direction and rate of tidal streams

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.5 ability to calculate tidal conditions using appropriate navigational publications		
Respond to navigational emergencies	*Emergency procedures* .1 precautions when beaching a vessel .2 action to be taken prior to, and after, grounding .3 action to be taken when the gear becomes fast to the ground or other obstruction .4 floating a grounded vessel, with and without assistance .5 action to be taken following a collision .6 temporary plugging of leaks .7 measures for the protection and safety of crew in emergencies .8 limiting damage and salving the vessel following a fire or explosion .9 abandoning ship .10 emergency steering	Assessment of evidence obtained from examination or practical instruction, in-service experience and practical drills in emergency procedures	The type and scale of any problem is promptly identified and decisions and actions minimize the effects of any malfunction of the vessel's systems Communications are effective and comply with established procedures Decisions and actions maximize safety of persons on board

Column 1 **Competence**	Column 2 **Knowledge, understanding and proficiency**	Column 3 **Methods for demonstrating competence**	Column 4 **Criteria for evaluating competence**
	.11 rescuing persons from a vessel in distress or from a wreck .12 man overboard procedures .13 towing and being towed		
Fishing vessel manoeuvring and handling	*Fishing vessel manoeuvring and handling* Manoeuvring and handling of a fishing vessel in all conditions including: .1 berthing, unberthing and anchor work under various conditions of wind and tide .2 manoeuvring in shallow water .3 management and handling of fishing vessels in heavy weather, including appropriate speed, particularly in following and quartering seas, assisting a vessel or aircraft in distress, means of keeping an unmanageable vessel out of a sea trough and lessening drift .4 manoeuvring the vessel during fishing operations, with special regard to factors which could	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved manned scale ship model, where appropriate	All decisions concerning berthing and anchoring are based on a proper assessment of the vessel's manoeuvring and engine characteristics and the forces to be expected while berthed alongside or lying at anchor While under way, a full assessment is made of possible effects of shallow and restricted waters, ice, banks, tidal conditions, passing vessel and own vessel's bow and stern wave so that the vessel can be safely manoeuvred under various conditions of loading and weather

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	adversely affect the vessel's safety during such operations .5 precautions in manoeuvring for launching rescue boats or survival craft in bad weather .6 methods of taking on board survivors from rescue boats or survival craft .7 where applicable, practical measures to be taken when navigating in ice, icebergs or conditions of ice accretion on board the vessel .8 the use of, and manoeuvring in, traffic separation schemes .9 the importance of navigating at reduced speed to avoid damage caused by own vessel's bow or stern wave .10 transhipment at sea of catch and other supplies to factory vessels and other vessels		
Fishing vessel power plants	*Fishing vessel power plants* .1 operating principles of marine power plants in fishing vessels	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience	Plant, auxiliary machinery and equipment is operated in accordance with technical specifications and within safe operating limits at all times

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.2 vessel's auxiliary machinery .3 general knowledge of marine engineering terms	.2 approved training vessel experience .3 approved simulator training, where appropriate	
Maritime communication for safe navigation	*The English language* Basic knowledge of the English language to enable the officer to use appropriate nautical publications, to understand meteorological information and messages concerning vessel's safety, and to communicate with other vessels	Examination and assessment of evidence obtained from practical instruction	English language nautical publications and messages relevant to the safety of the vessel are correctly interpreted or drafted Communications are clear and understood
Maintain safe navigation through the use of information from navigation equipment and systems to assist command decision-making Note: Training and assessment in the use of ARPA is not required for those who serve exclusively on vessels not fitted with ARPA. This limitation shall be reflected in the endorsement issued to the fishing vessel personnel concerned	An appreciation of system errors and thorough understanding of the operational aspects of navigational systems Blind pilotage planning Evaluation of navigational information derived from all sources, including radar and ARPA, in order to make and implement command decisions for collision avoidance and for directing the safe navigation of the vessel	Examination and assessment of evidence obtained from approved ARPA simulator and one or more of the following: .1 approved in-service experience .2 approved simulator training, where appropriate .3 approved laboratory equipment training	Information obtained from navigation equipment and systems is correctly interpreted and analysed, taking into account the limitations of the equipment and prevailing circumstances and conditions Action taken to avoid a close encounter or collision with another vessel is in accordance with the International Regulations for Preventing Collisions at Sea, 1972

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	The interrelation vessel and optimum use of all navigational data available for conducting navigation		
Maintain the safety of navigation through the use of ECDIS and associated navigation systems to assist command decision-making Note: Training and assessment in the use of ECDIS is not required for those who serve exclusively on vessels not fitted with ECDIS. This limitation shall be reflected in the endorsement issued to the fishing vessel personnel concerned	Management of operational procedures, system files and data, including: .1 manage procurement, licensing and updating of chart data and system software to conform to established procedures .2 system and information updating, including the ability to update ECDIS system version in accordance with vendor's product development .3 create and maintain system configuration and backup files .4 create and maintain log files in accordance with established procedures .5 create and maintain route plan files in accordance with established procedures .6 use ECDIS logbook and track history functions for inspection of system	Assessment of evidence obtained from one of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved ECDIS simulator training	Operational procedures for using ECDIS are established, applied and monitored Actions taken to minimize risk to safety of navigation

Column 1 Competence	Column 2 Knowledge, understanding and proficiency	Column 3 Methods for demonstrating competence	Column 4 Criteria for evaluating competence
	functions, alarm settings and user responses Use ECDIS playback functionality for passage review, route planning and review of system functions		
Function: Catch handling and stowage at management level			
Catch handling and stowage	*Catch handling and stowage* .1 the stowage and securing of the catch on board vessels, including fishing gear .2 loading and discharging operations, with special regard to heeling moments from gear and catch	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	The stowage and securing of the catch ensure that stability conditions remain within safe limits at all times during the voyage
Function: Controlling the operation of the vessel and care for persons on board at the management level			
Control trim and stability	*Fishing vessel construction and stability* .1 general knowledge of principal structural members of a vessel and the proper names of the various parts .2 knowledge of the theories and factors affecting trim and stability and measures necessary to preserve safe trim and stability	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate Using: stability and trim tables, diagrams	Stability conditions are maintained within safe limits at all times Actions to ensure and maintain the watertight integrity of the vessel are in accordance with accepted practice

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.3 knowledge and ability to use stability documents or booklets, stability data, stability and trim tables and precalculation for operating conditions. .4 knowledge of effects of free surfaces and ice accretion, where applicable .5 knowledge of effects of water on deck .6 knowledge of the significance of weathertight and watertight integrity .7 knowledge of internationally recognized stability criteria and conditions		
Monitor and control compliance with legislative requirements and measures to ensure safety of life at sea and the protection of the marine environment	*Maritime law* Taking into account the limited waters as defined by the Party, a knowledge of international maritime law as embodied in the international agreements and conventions as they affect the specific obligations and responsibilities of the skipper, particularly those concerning safety and the protection of the marine environment	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	Procedures for monitoring operations and maintenance comply with legislative requirements Potential non-compliance is promptly and fully identified Planned renewal and extension of certificates ensures continued validity of surveyed items and equipment

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	The extent of knowledge of national maritime legislation is left to the discretion of the Party, but shall include national arrangements for implementing applicable international agreements and conventions		
Maintain safety of the vessel's crew and the operational condition of life-saving and fire-fighting appliances	*Fire prevention and fire-fighting appliances* .1 organization of fire drills .2 classes and chemistry of fire .3 fire-fighting systems .4 understanding of action to be taken in the event of fire, includes fire involving oil systems .5 knowledge of provisions concerning fire-fighting equipment .6 knowledge of fire prevention measures *Life-saving* .1 thorough knowledge of life-saving appliances provided on fishing vessels. .2 ability to organize abandon ship drills	Assessment of evidence obtained from examination or approved training	Procedures for monitoring fire detection and safety systems ensure that all alarms are detected promptly and acted upon in accordance with established emergency procedures

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio life-saving appliances, EPIRBs, SARTs, immersion suits and thermal protective aids .3 actions to be taken to protect and safeguard all persons on board in emergencies .4 actions to limit damage and salve the vessel following a fire, explosion, collision or grounding Maintenance .1 maintenance of operational condition of life-saving, fire fighting and other safety systems		
Organize and manage the provision of medical care on board	*Medical care* .1 knowledge of medical first aid procedures .2 knowledge of relevant procedures to provide adequate medical care on board .3 knowledge of procedures for obtaining medical advice by radio	Assessment of evidence obtained from examination or approved training	Action taken and procedures following correctly apply and make full use of advice available

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.4 practical application of medical guides and advice by radio including the ability to take effective action based on such knowledge in case of accident or illness that are likely to occur on board the vessel		

Section A-II/4
Mandatory minimum requirements for certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters

Standard of competence

1 Every candidate for certification as officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters shall be required to demonstrate the competence to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/4.

2 The minimum knowledge, understanding and proficiency required for certification is listed in column 2 of table A-II/4.

3 The level of knowledge of the subjects listed in column 2 of table A-II/4 shall be sufficient for officers of the watch to carry out their watchkeeping duties.

4 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/4.

Onboard training

5 Every candidate for certification as officer in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters whose seagoing service, in accordance with paragraph 2.2 of regulation II/4, forms part of a training programme approved as meeting the requirements of this section shall follow an approved programme of onboard training which:

.1 ensures that, during the required period of seagoing service, the candidate receives systematic practical training and experience in the tasks, duties and responsibilities of an officer in charge of a navigational watch;

.2 is closely supervised and monitored by qualified officers aboard the vessels in which the approved seagoing service is performed; and

.3 is adequately documented in a training record book or a similar document.

Table A-II/4

Specification of minimum standard of competence for officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited waters

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Navigation at the operational level			
Plan and conduct a passage and determine position	Terrestrial and coastal navigation Ability to determine the vessel position by the use of: .1 landmarks .2 aids to navigation, including lighthouses, beacons and buoys .3 dead reckoning, taking into account winds, tides, currents, speed by propeller revolutions per minute and by log Thorough knowledge of and ability to use navigational charts and publications such as sailing directions, tide tables, notices to mariners and radio navigational warnings Electronic systems of position fixing and navigation Ability to determine the vessel's position by the use of electronic navigational aids to the satisfaction of the Party *Compasses*	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training using: chart catalogues, charts, nautical publications, radio navigational warnings, azimuth mirror, electronic navigation equipment, echo sounding equipment, compass	The information obtained from nautical charts and publications is relevant, interpreted correctly and properly applied. All potential navigational hazards are accurately identified The primary method of fixing the vessel's position is the most appropriate to the prevailing circumstances and conditions The position is determined within the limits of acceptable instrument/system errors The reliability of the information obtained from the primary method of position fixing is checked at appropriate intervals Calculations and measurements of navigational information are accurate The charts selected are the largest scale suitable for the area of navigation and charts and

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.1 care and use of compasses and associated equipment .2 ability to determine and apply compass errors *Meteorology* .1 knowledge of shipborne meteorological instruments and their application .2 knowledge of the characteristics of the various weather systems affecting the limited waters concerned *Echo sounders* .1 ability to operate the equipment and apply the information correctly *Steering control system* .1 knowledge of steering control systems and applicable operational procedures		publications are corrected in accordance with the latest information available Performance checks and tests to navigation systems comply with manufacturer's recommendations and good navigational practice Errors in magnetic and gyro-compasses are determined and correctly applied to courses and bearings Measurements and observations of weather conditions are accurate and appropriate to the passage
Maintain a safe navigational watch	*Watchkeeping* Thorough knowledge of the content, application and intent of the International Regulations for Preventing Collisions	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience	The conduct, handover and relief of the watch conforms with accepted principles and procedures

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	at Sea, 1972, specially annexes II and IV concerned with safe navigation Demonstrate knowledge of the content of the basic principles to be observed in keeping a navigational watch as prescribed in chapter IV	.2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	A proper lookout is maintained at all times and in such a way as to conform to accepted principles and procedures Lights, shapes and sound signals conform with the requirements contained in the International Regulations for Preventing Collisions at Sea, 1972, and are correctly recognized The frequency and extent of monitoring of traffic, the vessel and the environment conform with accepted principles and procedures A proper record is maintained of the movements and activities relating to the navigation of the vessel Responsibility for the safety of navigation is clearly defined at all times, including periods when the master is on the bridge and while under pilotage
Use of radar to maintain safety of navigation	*Radar navigation* Knowledge of the fundamentals of radar and ability in the operation and use of radar, and in the interpretation and	Assessment of evidence obtained from examination or approved radar simulator training or, when not available, manoeuvring board	Information obtained from radar is correctly interpreted and analysed, taking into account the limitations of the equipment and prevailing

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	analysis of information obtained from the equipment including the following: .1 factors affecting performance and accuracy .2 setting up and maintaining displays .3 detection of misrepresentation of information, false echoes, sea return .4 range and bearing .5 identification of critical echoes .6 detection of course and speed of other vessels .7 time and distance of closest approach of crossing, meeting or overtaking vessels .8 effect of changes in own vessel's course or speed or both .9 where radar simulator training is not available, the use of manoeuvring board .10 application of the International Regulations for Preventing Collisions at Sea, 1972	plus in-service experience	circumstances and conditions Action taken to avoid a close encounter or collision with other vessels is in accordance with the International Regulations for Preventing Collisions at Sea, 1972, as amended Decisions to amend course and/or speed are both timely and in accordance with accepted navigation practice Adjustments made to the vessel's course and speed maintain safety of navigation Communication is clear, concise and acknowledged at all times in a seamanlike manner Manoeuvring signals are made at the appropriate time and are in accordance with the International Regulations for Preventing Collisions at Sea, 1972

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Respond to a distress signal at sea	*Search and rescue* Knowledge of search and rescue procedures	Assessment of evidence obtained from examination or practical instruction and/or simulation	The distress or emergency signal is immediately recognized Contingency plans and instructions in standing orders are implemented and complied with
Maritime communication for safe navigation	*The English language* Basic knowledge of the English language to enable the officer to use appropriate nautical publications, to understand meteorological information and messages concerning vessel's safety, and to communicate with other vessels	Examination and assessment of evidence obtained from practical instruction	English language nautical publications and messages relevant to the safety of the vessel are correctly interpreted or drafted Communications are clear and understood
Fishing vessel manoeuvring and handling	*Fishing vessel manoeuvring and handling* Basic knowledge of manoeuvring and handling a fishing vessel, including the following: .1 berthing, unberthing, anchoring and manoeuvring alongside other vessels at sea .2 manoeuvring during fishing operations with special regard to factors which could adversely affect the vessel's safety during such operations	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved training on a manned scale ship model where appropriate	Safe operating limits of vessel propulsion, steering and power systems are not exceeded in normal manoeuvres Adjustments made to the vessel's course and speed maintain safety of navigation

Column 1 Competence	Column 2 Knowledge, understanding and proficiency	Column 3 Methods for demonstrating competence	Column 4 Criteria for evaluating competence
	.3 effects of wind, tide and current on ship handling .4 manoeuvring in shallow water .5 management of fishing vessels in heavy weather .6 rescuing persons and assisting a vessel or aircraft in distress .7 towing and being towed .8 man overboard procedure .9 where applicable, practical measures to be taken when navigating in ice or in conditions of ice accretion on board the vessel		
Use of radar and ARPA to maintain safety of navigation Note: Training and assessment in the use of ARPA is not required for those who serve exclusively on vessels not fitted with ARPA. This limitation shall be reflected in the endorsement issued to the fishing vessel personnel concerned.	*Radar navigation* Knowledge of the fundamentals of radar and automatic radar plotting aids (ARPA) Ability to operate and to interpret and analyse information obtained from radar, including the following: Performance, including:	Assessment of evidence obtained from approved radar simulator and ARPA simulator plus in-service experience	Information obtained from radar and ARPA is correctly interpreted and analysed, taking into account the limitations of the equipment and prevailing circumstances and conditions Action taken to avoid a close encounter or collision with other vessels is in accordance with the International Regulations for Preventing Collisions at Sea, 1972

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.1 factors affecting performance and accuracy .2 setting up and maintaining displays .3 detection of misrepresentation of information, false echoes, sea return, etc., racons and SARTs Use, including: .1 range and bearing; course and speed of other vessels; time and distance of closest approach of crossing, meeting overtaking vessels .2 identification of critical echoes; detecting course and speed changes of other vessels; effect of changes in own vessel's course or speed or both .3 application of the International Regulations for Preventing Collisions at Sea, 1972 .4 plotting techniques and relative- and true-motion concepts .5 parallel indexing Principal types of ARPA, their display characteristics, performance standards and the		Decisions to amend course and/or speed are both timely and in accordance with accepted navigation practice Adjustments made to the vessel's course and speed maintain safety of navigation Communication is clear, concise and acknowledged at all times in a seamanlike manner Manoeuvring signals are made at the appropriate time and are in accordance with the International Regulations for Preventing Collisions at Sea, 1972

Column 1 Competence	Column 2 Knowledge, understanding and proficiency	Column 3 Methods for demonstrating competence	Column 4 Criteria for evaluating competence
	dangers of over-reliance on ARPA Ability to operate and to interpret and analyse information obtained from ARPA, including: .1 system performance and accuracy, tracking capabilities and limitations, and processing delays .2 use of operational warnings and system tests .3 methods of target acquisition and their limitations .4 true and relative vectors, graphic representation of target information and danger areas .5 deriving and analysing information, critical echoes, exclusion areas and trial manoeuvres		
Use of ECDIS to maintain the safety of navigation Note: Training and assessment in the use of ECDIS is not required for those who serve exclusively on vessels not fitted with ECDIS. This limitation shall be	*Navigation using ECDIS* Knowledge of the capability and limitations of ECDIS operations, including: .1 thorough understanding of Electronic Navigational Chart (ENC) data, data	Examination and assessment of evidence obtained from one or more of the following: .1 approved training vessel experience .2 approved ECDIS simulator training	Monitors information on ECDIS in a manner that contributes to safe navigation Information obtained from ECDIS (including radar overlay and/or radar tracking functions, when fitted) is correctly interpreted

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
reflected in the endorsements issued to the fishing vessel personnel concerned	accuracy, presentation rules, display options and other chart data formats .2 the dangers of over-reliance .3 familiarity with the functions of ECDIS required by performance standards in force Proficiency in operation, interpretation, and analysis of information obtained from ECDIS, including: .1 use of functions that are integrated with other navigation systems in various installations, including proper functioning and adjustment to desired settings .2 safe monitoring and adjustment of information, including own position, sea area display, mode and orientation, chart data displayed, route monitoring, user-created information layers, contacts (when interfaced with AIS and/or radar tracking) and radar overlay functions (when interfaced)		and analysed, taking into account the limitations of the equipment, all connected sensors (including radar and AIS where interfaced), and prevailing circumstances and conditions Safety of navigation is maintained through adjustments made to the vessel's course and speed through ECDIS-controlled track-keeping functions (when fitted) Communication is clear, concise and acknowledged at all times in a seamanlike manner

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.3 confirmation of vessel position by alternative means .4 efficient use of settings to ensure conformance to operational procedures, including alarm parameters for anti-grounding, proximity to contacts and special areas, completeness of chart data and chart update status, and backup arrangements .5 adjustment of settings and values to suit the present conditions .6 situational awareness while using ECDIS including safe water and proximity of hazards, set and drift, chart data and scale selection, suitability of route, contact detection and management, and integrity of sensors		
Function: Catch handling and stowage at operational level			
Catch handling and stowage	*Catch handling and stowage* Knowledge of safe handling and stowage of catch and the effect of these factors on the safety of the vessel	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	Handling and stowage of catch are carried out in accordance with safety rules/regulations, equipment operating instructions and shipboard stowage limitation

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
		.3 approved simulator training, where appropriate	
Function: Controlling the operation of the vessel and care for persons on board at the management level			
Ensure compliance with pollution prevention requirements and the protection of the marine environment	*Prevention of pollution of the marine environment* Knowledge of the precautions to be observed to prevent pollution of the marine environment Knowledge of the impacts of fishing on the environment including pollution related to abandoned, lost or otherwise discarded fishing gear in the context of annex V of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 thereto Understanding the importance of proactive measures to protect the marine environment	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Procedures for monitoring shipboard operations and ensuring compliance with the requirements of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 thereto
Maintain seaworthiness of the vessel	*Vessel stability* Ability to use stability data, stability and trim tables and precalculated operating conditions Knowledge of:	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	The stability conditions comply with the IMO intact stability criteria under all conditions of loading Actions to ensure and maintain the watertight integrity of the vessel are in

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.1 the effects of suspended weight on stability .2 the effects of fishing gear operations on stability .3 the risks of following and quartering seas *Fishing vessel construction* General knowledge of the principal structural members of a vessel Understanding of the fundamentals of watertight integrity	.3 approved simulator training, where appropriate .4 approved laboratory equipment training .5 application of vessel stability data	accordance with accepted practice
Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* .1 Ability to organize fire drills .2 Knowledge of classes and chemistry of fire .3 Knowledge of fire-fighting systems .4 Knowledge of action to be taken in the event of fire, .5 Knowledge of fire prevention measures and use of fire-fighting appliances	Assessment of evidence obtained from approved fire-fighting training and experience	The type and scale of the problem is promptly identified and initial actions conform with the emergency procedure and contingency plans for the vessel Evacuation, emergency shutdown and isolation procedures are appropriate to the nature of the emergency and are implemented promptly The order of priority, and the levels and timescales of making reports and informing personnel on board, are relevant to the nature of the emergency and

Column 1 Competence	Column 2 Knowledge, understanding and proficiency	Column 3 Methods for demonstrating competence	Column 4 Criteria for evaluating competence
			reflect the urgency of the problem
Operate life-saving appliances	*Life-saving* .1 knowledge of life-saving appliances provided on fishing vessels .2 organization of abandon ship drills and use of the equipment .3 knowledge of survival techniques .4 knowledge of personal responsibility	Assessment of evidence obtained from examination or approved training	Actions in responding to abandon ship and survival situations are appropriate to the prevailing circumstances and conditions and comply with accepted safety practices and standards
Medical aid	*Medical aid* Knowledge of first aid procedures. Practical application of medical guides and advice by radio	Assessment of evidence obtained from approved training	The identification of probable cause, nature and extent of injuries or conditions is prompt and treatment minimizes immediate threat to life
Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions and other relevant international instruments concerning safety of life at sea and protection of the marine environment Basic working knowledge of relevant international instruments concerning the responsible conservation, fishing management,	Assessment of evidence obtained from examination or approved training	Legislative requirements relating to safety of life at sea and protection of the marine environment are correctly identified

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	responsible fisheries and development of living aquatic resources as well as key international instruments related to the fight against illegal, unreported and unregulated (IUU) fishing Understanding of the requirements which crews shall comply with Understanding the importance of sustainable development of the fishing industry		

Section A-II/5-1-1
Mandatory minimum requirements for certification of chief engineer officers and second engineer officers of fishing vessels powered by main propulsion machinery of 3,000 kW propulsion power or more

Standard of competence

1 Every candidate for certification as chief engineer officer and second engineer officer of fishing vessels powered by main propulsion machinery of *3,000* kW power or more shall be required to demonstrate abilities to undertake, the tasks, duties and responsibilities listed in column 1 of table A-II/5-1.

2 The minimum knowledge, understanding and proficiency required for certification is listed in column 2 of table A-II/5-1. This incorporates, expands and extends in depth the subjects listed in column 2 of table A-II/5-2 for officers in charge of an engineering watch.

3 Bearing in mind that a second engineer officer shall be in a position to assume the responsibilities of the chief engineer officer at any time, assessment in these subjects shall be designed to test the candidate's ability to assimilate all available information that affects the safe operation of the ship's machinery and the protection of the marine environment.

4 The level of knowledge of the subjects listed in column 2 of table A-II/5-1 shall be sufficient to enable the candidate to serve in the capacity of chief engineer officer or second engineer officer.

5 The Administration may omit knowledge requirements for types of propulsion machinery other than those machinery installations for which the certificate to be awarded shall be valid. A certificate awarded on such a basis shall not be valid for any category of machinery installation which has been omitted until the engineer officer proves to be competent in these knowledge requirements. Any such limitation shall be stated on the certificate and in the endorsement.

6 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/5-1.

Table A-II/5-1

Specification of minimum standard of competence for chief engineer officers and second engineer officers of fishing vessels powered by main propulsion machinery of 3,000 kW propulsion power or more

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Manage the operation of propulsion plant machinery Note: the Administration may omit knowledge requirements for types of propulsion machinery other than machinery installations for which the certificate to be awarded is to be valid	Design features, and operative mechanism of the following machinery and associated auxiliaries: .1 marine diesel engine .2 marine steam turbine .3 marine gas turbine .4 marine steam boiler	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Explanation and understanding of design features and operating mechanisms are appropriate

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Plan and schedule operations Note: the Administration may omit knowledge requirements for types of propulsion machinery other than machinery installations for which the certificate to be awarded is to be valid	*Theoretical knowledge* Thermodynamics and heat transmission Mechanics and hydromechanics Propulsive characteristics of diesel engines, steam and gas turbines, including speed, output and fuel consumption Heat cycle, thermal efficiency and heat balance of the following: .1 marine diesel engine .2 marine steam turbine .3 marine gas turbine .4 marine steam boiler Refrigerators and refrigeration cycle Physical and chemical properties of fuels and lubricants Technology of materials Naval architecture and ship construction, including damage control	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	The planning and preparation of operations is suited to the design parameters of the power installation and to the requirements of the voyage
Operation, surveillance, performance assessment and	*Practical knowledge* Start up and shut down main propulsion	Examination and assessment of evidence obtained from one or more of the following:	The methods of preparing for the start-up and of making available

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
maintaining safety of propulsion plant and auxiliary machinery	and auxiliary machinery, including associated systems Operating limits of propulsion plant The efficient operation, surveillance, performance assessment and maintaining safety of propulsion plant and auxiliary machinery Functions and mechanism of automatic control for main engine Functions and mechanism of automatic control for auxiliary machinery including but not limited to: .1 generator distribution systems .2 steam boilers .3 oil purifier .4 refrigeration system .5 pumping and piping systems .6 steering gear system .7 catch-handling equipment and deck machinery	.1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	fuels, lubricants, cooling water and air are the most appropriate Checks of pressures, temperatures and revolutions during the start-up and warm-up period are in accordance with technical specifications and agreed work plans Surveillance of main propulsion plant and auxiliary systems is sufficient to maintain safe operating conditions The methods of preparing the shutdown and of supervising the cooling down of the engine are the most appropriate The methods of measuring the load capacity of the engines are in accordance with technical specifications Performance is checked against bridge orders Performance levels are in accordance with technical specifications

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Manage fuel, lubrication and ballast operations	Operation and maintenance of machinery, including pumps and piping systems	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	Fuel and ballast operations meet operational requirements and are carried out so as to prevent pollution of the marine environment
Manage operation of electrical and electronic control equipment	*Theoretical knowledge* Marine electrotechnology, electronics power electronics, automatic control engineering and safety devices Design features and system configurations of automatic control equipment and safety devices for the following: .1 main engine .2 generator and distribution system .3 steam boiler Design features and system configurations of operational control equipment for electrical motors Features of hydraulic and pneumatic control equipment	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Operation of equipment and system is in accordance with operating manuals Performance levels are in accordance with technical specifications

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Manage troubleshooting, restoration of electrical and electronic control equipment to operating condition	*Practical knowledge* Troubleshooting of electrical and electronic control equipment Function test of electrical, electronic control equipment and safety devices Troubleshooting of monitoring systems Software version control	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Maintenance activities are correctly planned in accordance with technical, legislative, safety and procedural specifications Inspection, testing and troubleshooting of equipment are appropriate
Manage safe and effective maintenance and repair procedures	*Theoretical knowledge* Marine engineering practice *Practical knowledge* Manage safe and effective maintenance and repair procedures Planning maintenance, including statutory and class verifications Planning repairs	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved workshop training	Maintenance activities are correctly planned and carried out in accordance with technical, legislative, safety and procedural specifications Appropriate plans, specifications, materials and equipment are available for maintenance and repair Action taken leads to the restoration of plant by the most suitable method
Detect and identify the cause of machinery malfunctions and correct faults	*Practical knowledge* Detection of machinery malfunction, location of faults and action to prevent damage	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience	The methods of comparing actual operating conditions are in accordance with recommended practices and procedures Actions and decisions are in

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Inspection and adjustment of equipment Non-destructive examination	.3 approved simulator training, where appropriate .4 approved laboratory equipment training	accordance with recommended operating specifications and limitations
Ensure safe working practices	*Practical knowledge* Safe working practices	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved laboratory equipment training	Working practices are in accordance with legislative requirements, codes of practice, permits to work and environmental concerns
Control trim and stability	Understanding of fundamental principles of ship construction and the theories and factors affecting trim and stability and measures necessary to preserve trim and stability Knowledge of the effect on trim and stability of a vessel in the event of damage to, and consequent flooding of a compartment and countermeasures to be taken Knowledge of IMO recommendations concerning ship stability	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	Stability and loading conditions are maintained within safety limits at all times
Monitor and control compliance with	*Maritime law*	Examination and assessment of evidence	Procedures for monitoring operations and

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
legislative requirements and measures to ensure safety of life at sea and the protection of the marine environment	A knowledge of international maritime law as embodied in the international agreements and conventions as they affect the specific obligations and responsibilities of the chief engineer officer, particularly those concerning safety and the protection of the marine environment Particular regard shall be paid to the following subjects: .1 certificates and other documents required to be carried on board fishing vessels by international conventions, how they may be obtained and the period of their legal validity .2 responsibilities under a relevant international convention related to the safety of fishing vessels .3 responsibilities under the relevant requirements of chapter V of the International Convention for the Safety of Life at Sea, 1974 .4 responsibilities under the International Convention for the Prevention of Pollution	obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate	maintenance comply with legislative requirements Potential non-compliance is promptly and fully identified Planned renewal and extension of certificates ensures continued validity of surveyed items and equipment

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	from Ships, 1973, as modified by the Protocol of 1978 thereto .5 maritime declarations of health and the requirements of the international health regulations .6 responsibilities under other international instruments affecting the safety of the vessel and crew The extent of knowledge of national maritime legislation is left to the discretion of the Party, but shall include national arrangements for implementing applicable international agreements and conventions .7 knowledge of relevant international instruments on safety and health of personnel on board fishing vessels .8 the principles and international standards applicable to the responsible conservation, management and development of living aquatic resources .9 knowledge of key international instruments and tools		

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	related to the fight against illegal, unreported and unregulated (IUU) fishing		
Maintain safety of the vessel's crew and the operational condition of life-saving and fire-fighting appliances	*Fire prevention and fire-fighting appliances* .1 organization of fire drills .2 classes and chemistry of fire .3 fire-fighting systems .4 understanding of action to be taken in the event of fire, includes fire involving oil systems .5 knowledge of provisions concerning fire-fighting equipment .6 knowledge of fire prevention measures *Life-saving* .1 thorough knowledge of life-saving appliances provided on fishing vessels. .2 ability to organize abandon ship drills and knowledge of the operation of survival craft and rescue boats, their launching appliances and arrangements, and their equipment, including radio life-saving appliances, EPIRBs, SARTs,	Assessment of evidence obtained from approved training	Procedures for monitoring fire detection and safety systems ensure that all alarms are detected promptly and acted upon in accordance with established emergency procedures

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	immersion suits and thermal protective aids .3 actions to be taken to protect and safeguard all persons on board in emergencies .4 actions to limit damage and salve the vessel following a fire, explosion, collision or grounding *Maintenance* .1 maintenance of operational condition of life-saving, fire-fighting and other safety systems		
Develop emergency and damage control plans and handle emergency situations	Ship construction, including damage control Methods and aids for fire prevention, detection and extinction Functions and use of life-saving appliances	Examination and assessment of evidence obtained from approved in-service training and experience	Emergency procedures are in accordance with the established plans for emergency situations

Section A-II/5-1-2
Mandatory minimum requirements for certification of chief engineer officers and second engineer officers on fishing vessels powered by main propulsion machinery of between 750 kW and 3,000 kW propulsion power

Standard of competence

1 Every candidate for certification as chief engineer officer and second engineer officer of seagoing fishing vessels powered by main propulsion machinery of between 750 kW and 3,000 kW power shall be required to demonstrate ability to undertake, at management level, the tasks, duties and responsibilities listed in column 1 of table A-II/5-1.

2 The minimum knowledge, understanding and proficiency required for certification is listed in column 2 of table A-II/5-1. This incorporates, expands and extends in depth the subjects listed in column 2 of table A-II/5-2 for officers in charge of an engineering watch.

3 Bearing in mind that a second engineer officer shall be in a position to assume the responsibilities of the chief engineer officer at any time, assessment in these subjects shall be designed to test the candidate's ability to assimilate all available information that affects the safe operation of the ship's machinery and the protection of the marine environment.

4 The level of knowledge of the subjects listed in column 2 of table A-II/5-1 may be lowered but shall be sufficient to enable the candidate to serve in the capacity of chief engineer officer or second engineer officer at the range of propulsion power specified in this section.

5 Training and experience to achieve the necessary level of theoretical knowledge, understanding and proficiency shall take into account the relevant requirements of this part.

6 The Administration may omit knowledge requirements for types of propulsion machinery other than those machinery installations for which the certificate to be awarded shall be valid. A certificate awarded on such a basis shall not be valid for any category of machinery installation which has been omitted until the engineer officer proves to be competent in these knowledge requirements. Any such limitation shall be stated on the certificate and in the endorsement.

7 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/5-1.

Section A-II/5-2
Mandatory minimum requirements for certification of officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room of fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more

Standard of competence

1 Every candidate for certification as officer in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room shall be required to demonstrate abilities to undertake, the tasks, duties and responsibilities listed in column 1 of table A-II/5-2.

2 The minimum knowledge, understanding and proficiency requires for certification is listed in column 2 of table A-II/5-2.

3 The level of knowledge of the subjects listed in column 2 of table A-II/5-2 shall be sufficient to enable the candidate to serve in the capacity of engineer officers.

4 The Administration may omit knowledge requirements for types of propulsion machinery other than those machinery installations for which the certificate to be awarded shall be valid. A certificate awarded on such a basis shall not be valid for any category of machinery installation which has been omitted until the engineer officer proves to be competent in these knowledge requirements. Any such limitation shall be stated on the certificate and in the endorsement.

5 Every candidate for certification shall be required to provide evidence of having achieved the required standard of competence in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of table A-II/5-2.

Onboard training

6 Every candidate for certification as officer in charge of an engineering watch of a fishing vessel powered by main propulsion machinery of 750 kW or more whose seagoing service, in accordance with paragraphs 2.2 and 2.3 of regulation II/5-2, forms part of a training programme approved as meeting the requirements of this section shall follow an approved programme of onboard training which:

.1 ensures that, during the required period of seagoing service, the candidate receives systematic practical training and experience in the tasks, duties and responsibilities of an officer in charge of an engine-room watch;

.2 is closely supervised and monitored by a qualified and certificated engineer officer, or another appropriately experienced officer on board the ships in which the approved seagoing service is performed; and

.3 is adequately documented in a training record book.

Table A-II/5-2

Specification of minimum standard of competence for officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Marine Engineering at the operational level			
Maintain a safe engineering watch	Thorough knowledge of principles to be observed in keeping an engineering watch, including:	Assessment of evidence obtained from one or more of the following: .1 approved in-service experience	The conduct, handover and relief of the watch conforms with accepted principles and procedures

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.1 duties associated with taking over and accepting a watch .2 routine duties undertaken during a watch .3 maintenance of the machinery space logs and the significance of the readings taken .4 duties associated with handing over a watch Safety and emergency procedures; changeover of remote/automatic to local control of all systems Safety precautions to be observed during a watch and immediate actions to be taken in the event of fire or accident, with particular reference to oil systems	.2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	The frequency and extent of monitoring of engineering equipment and systems conforms to manufacturers' recommendations and accepted principles and procedures, including principles to be observed in keeping an engineering watch A proper record is maintained of the movements and activities relating to the vessel's engineering systems
Use English in written and oral form	Adequate knowledge of the English language to enable the officer to use engineering publications and to perform engineering duties	Examination and assessment of evidence obtained from practical instruction	English language publications relevant to engineering duties are correctly interpreted Communications are clear and understood
Use internal communication systems	Operation of all internal communication systems on board	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience	Transmission and reception of messages are consistently successful Communication records are complete, accurate and comply

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
		.2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	with statutory requirements
Operate main and auxiliary machinery and associated control systems Note: the Administration may omit knowledge requirements for types of propulsion machinery other than machinery installations for which the certificate to be awarded is to be valid	Basic construction and operation principles of machinery systems, including: .1 marine diesel engine .2 marine steam turbine .3 marine gas turbine .4 marine boiler .5 shafting installations, including propeller .6 other auxiliaries, including various pumps, air compressor, purifier, freshwater generator, heat exchanger, refrigeration, air-conditioning and ventilation systems .7 steering gear .8 automatic control systems .9 fluid flow and characteristics of lubricating oil, fuel oil and cooling systems	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved laboratory equipment training	Construction and operating mechanisms can be understood and explained with drawings/instructions

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.10 deck machinery Safety and emergency procedures for operation of propulsion plant machinery, including control systems Preparation, operation, fault detection and necessary measures to prevent damage for the following machinery items and control systems: .1 main engine and associated auxiliaries .2 steam boiler and associated auxiliaries and steam systems .3 auxiliary prime movers and associated systems .4 other auxiliaries, including refrigeration, air-conditioning and ventilation systems	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Operations are planned and carried out in accordance with operating manuals, established rules and procedures to ensure safety of operations and avoid pollution of the marine environment Deviations from the norm are promptly identified The output of plant and engineering systems consistently meets requirements, including bridge orders relating to changes in speed and direction The causes of machinery malfunctions are promptly identified, and actions are designed to ensure the overall safety of the vessel and the plant, having regard to the prevailing circumstances and conditions
Operate fuel, lubrication, ballast and other pumping	Operational characteristics of pumps and piping	Examination and assessment of evidence obtained	Operations are planned and carried out in accordance with operating manuals,

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
systems and associated control systems	systems, including control systems Operation of pumping systems: .1 routine pumping operations .2 operation of bilge and ballast pumping systems Oily-water separators (or similar equipment) requirements and operation	from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	established rules and procedures to ensure safety of operations and avoid pollution of the marine environment Deviations from the norm are promptly identified and appropriate action is taken
Function: Electrical, electronic and control engineering at the operational level			
Operate electrical, electronic and control systems	Basic configuration and operation principles of the following electrical, electronic and control equipment: .1 electrical equipment: .1 generator and distribution systems .2 preparing, starting, paralleling and changing over generators .3 electrical motors including starting methodologies .4 high-voltage installations .5 sequential control circuits and associated system devices	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	Operations are planned and carried out in accordance with operating manuals, established rules and procedures to ensure safety of operations Electrical, electronic and control systems can be understood and explained with drawings/instructions

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.2 electronic equipment: .1 characteristics of basic electronic circuit elements .2 flow chart for automatic and control systems .3 functions, characteristics and features of control systems for machinery items, including main propulsion plant operation control and steam boiler automatic controls .3 control systems: .1 various automatic control methodologies and characteristics .2 proportional-integral-derivative (PID) control characteristics and associated system devices for process control		
Maintenance and repair of electrical and electronic equipment	Safety requirements for working on shipboard electrical systems, including the safe isolation of electrical equipment required before personnel are permitted to work on such equipment	Examination and assessment of evidence obtained from one or more of the following: .1 approved workshop skills training .2 approved practical experience and tests	Safety measures for working are appropriate Selection and use of hand tools, measuring instruments and testing equipment are appropriate and interpretation of results is accurate

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Maintenance and repair of electrical system equipment, switchboards, electric motors, generator and DC electrical systems and equipment Detection of electric malfunction, location of faults and measures to prevent damage Construction and operation of electrical testing and measuring equipment Function and performance tests of the following equipment and their configuration: .1 monitoring systems .2 automatic control devices .3 protective devices The interpretation of electrical and simple electronic diagrams	.3 approved in-service experience .4 approved training vessel experience	Dismantling, inspecting, repairing and reassembling equipment are in accordance with manuals and good practice Reassembling and performance testing is in accordance with manuals and good practice
Function: Maintenance and repair at the operational level			
Appropriate use of hand tools, machine tools and measuring instruments for fabrication and repair on board	Characteristics and limitations of materials used in construction and repair of vessels and equipment Characteristics and limitations of processes used for fabrication and repair Properties and parameters	Assessment of evidence obtained from one or more of the following: .1 approved workshop skills training .2 approved practical experience and tests .3 approved in-service experience	Identification of important parameters for fabrication of typical vessel-related components is appropriate Selection of materials is appropriate Fabrication is to designated tolerances

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	considered in the fabrication and repair of systems and components Methods for carrying out safe emergency/temporary repairs Safety measures to be taken to ensure a safe working environment and for using hand tools, machine tools and measuring instruments Use of hand tools, machine tools and measuring instruments Use of various types of sealants and packings	.4 approved training vessel experience	Use of equipment and hand tools, machine tools and measuring instruments is appropriate and safe

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Maintenance and repair of shipboard machinery and equipment	Safety measures to be taken for repair and maintenance, including the safe isolation of shipboard machinery and equipment required before personnel are permitted to work on such machinery or equipment Appropriate basic mechanical knowledge and skills Maintenance and repair, such as dismantling, adjustment and reassembling of machinery and equipment The use of appropriate specialized tools and measuring instruments Design characteristics and selection of materials in construction of equipment Interpretation of machinery drawings and handbooks The interpretation of piping, hydraulic and pneumatic diagrams	Examination and assessment of evidence obtained from one or more of the following: .1 approved workshop skills training .2 approved practical experience and tests .3 approved in-service experience .4 approved training vessel experience	Safety procedures followed are appropriate Selection of tools and spare gear is appropriate Dismantling, inspecting, repairing and reassembling equipment is in accordance with manuals and good practice Recommissioning and performance testing is in accordance with manuals and good practice Selection of materials and parts is appropriate

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Function: Controlling the operation of the vessel and care for persons on board at the operational level			
Ensure compliance with pollution-prevention requirements	*Prevention of pollution of the marine environment* Knowledge of the impacts of fishing on the environment Knowledge of the precautions to be taken to prevent pollution of the marine environment Anti-pollution procedures and all associated equipment Understanding the importance of proactive measures to protect the marine environment	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved training	Procedures for monitoring shipboard operations and ensuring compliance with MARPOL requirements are fully observed Actions to ensure that a positive environmental reputation is maintained
Maintain seaworthiness of the vessel	*Ship stability* Working knowledge and application of stability, trim and stress tables, diagrams and stress-calculating equipment Understanding of the fundamentals of watertight integrity Understanding of fundamental actions to be taken in the event of partial loss of intact buoyancy *Ship construction* General knowledge of the principal structural members of a vessel	Examination and assessment of evidence obtained from one or more of the following: .1 approved in-service experience .2 approved training vessel experience .3 approved simulator training, where appropriate .4 approved laboratory equipment training	The stability conditions comply with IMO intact stability criteria under all conditions of loading Actions to ensure and maintain the watertight integrity of the vessel are in accordance with accepted practice

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	and the proper names for the various parts		
Prevent, control and fight fires on board	*Fire prevention and fire-fighting appliances* .1 knowledge of classes and chemistry of fire .2 knowledge of action to be taken in the event of fire .3 knowledge of fire prevention measures	Assessment of evidence obtained from approved fire-fighting training and experience	The type and scale of the problem is promptly identified and initial actions conform with the emergency procedure and contingency plans for the vessel Evacuation, emergency shutdown and isolation procedures are appropriate to the nature of the emergency and are implemented promptly The order of priority, and the levels and timescales of making reports and informing personnel on board, are relevant to the nature of the emergency and reflect the urgency of the problem
Operate life-saving appliances	*Life-saving* Ability to direct abandon ship drills and knowledge of the operation of life-saving appliances and their equipment, including the two-way radio-telephone apparatus. Survival at sea techniques including participation in an approved survival at sea course	Assessment of evidence obtained from examination or approved training	Actions in responding to abandon ship and survival situations are appropriate to the prevailing circumstances and conditions and comply with accepted safety practices and standards

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Medical aid	*Medical aid* Knowledge of first aid procedures. Practical application of medical guides and advice by radio	Assessment of evidence obtained from approved training	The identification of probable cause, nature and extent of injuries or conditions is prompt and treatment minimizes immediate threat to life
Monitor compliance with legislative requirements	Basic working knowledge of the relevant IMO conventions and other relevant international instruments concerning safety of life at sea and protection of the marine environment Basic working knowledge of relevant international instruments concerning the responsible conservation, fishing management, responsible fisheries and development of living aquatic resources as well as key international instruments related to the fight against illegal, unreported and unregulated (IUU) fishing Understanding of the requirements which crews shall comply with Understanding the importance of sustainable development of the fishing industry	Assessment of evidence obtained from examination or approved training	Legislative requirements relating to safety of life at sea and protection of the marine environment are correctly identified

Section A-II/6
Mandatory minimum requirements for certification of GMDSS radio operators on board fishing vessels

Application

(No provisions)

Standard of competence

1 The minimum knowledge, understanding and proficiency required for certification of GMDSS radio operators shall be sufficient for radio operators to carry out their radio duties. The knowledge required for obtaining each type of certificate defined in the Radio Regulations shall be in accordance with those regulations. In addition, every candidate for certification of competency shall be required to demonstrate abilities to undertake the tasks, duties and responsibilities listed in column 1 of table A-II/6.

2 The knowledge, understanding and proficiency for endorsement under the Convention of certificates issued under the provisions of the Radio Regulations are listed in column 2 of table A-II/6.

3 The level of knowledge of the subjects listed in column 2 of table A-II/6 shall be sufficient for the candidate to carry out his duties.

4 Every candidate shall provide evidence of having achieved the required standard of competence through:

.1 demonstration of competence to perform the tasks and duties and to assume responsibilities listed in column 1 of table A-II/6, in accordance with the methods for demonstrating competence and the criteria for evaluating competence tabulated in columns 3 and 4 of that table; and

.2 examination or continuous assessment as part of an approved course of training based on the material set out in column 2 of table A-II/6.

Table A-II/6
Specification of minimum standard of competence for GMDSS radio operators

Function: Radiocommunication at the operational level

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Transmit and receive information using GMDSS subsystems and equipment and fulfilling the functional requirements of GMDSS	In addition to the requirements of the Radio Regulations, a knowledge of: .1 search and rescue radiocommunications, including procedures in the International	Examination or assessment of evidence obtained from practical demonstration of operational procedures using: .1 approved equipment	Transmission and reception of communications complies with international regulations and procedures, and are carried out efficiently and effectively

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Aeronautical and Maritime Search and Rescue (IAMSAR) Manual .2 the means to prevent the transmission of false distress alerts and the procedures to mitigate the effects of such alerts .3 ship reporting systems .4 radio medical services .5 use of the International Code of Signals and the IMO Standard Marine Communication Phrases .6 the English language, both written and spoken, for the communication of information relevant to safety of life at sea Note: this requirement may be reduced in the case of the Restricted Radio Operator's Certificate	.2 GMDSS communication simulator, where appropriate .3 radiocommunications laboratory equipment	English language messages relevant to the safety of the vessel and persons on board, and protection of the marine environment are correctly handled

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Provide radio services in emergencies	The provision of radio services in emergencies such as: .1 abandon ship .2 fire on board vessel .3 partial or full breakdown of radio installations Preventive measures for the safety of vessel and personnel in connection with hazards related to radio equipment, including electrical and non-ionizing radiation hazards	Examination or assessment of evidence obtained from practical demonstration of operational procedures using: .1 approved equipment .2 GMDSS communication simulator, where appropriate .3 radiocommunication laboratory equipment	Response is carried out efficiently and effectively

Section A-II/7
Revalidation of certificates for skippers and officers

Professional competence

1 Continued professional competence as required under regulation II/7, shall be established by:

.1 approved seagoing service, performing functions appropriate to the certificate held, for a period of at least:

.1 twelve months in total during the preceding five years; or

.2 three months in total during the preceding six months immediately prior to revalidating; or

.2 having performed functions considered to be equivalent to the seagoing service required in paragraph 1.1; or

.3 passing an approved test; or

.4 successfully completing an approved training course or courses; or

.5 having completed approved seagoing service, performing functions appropriate to the certificate held, for a period of not less than three months in a supernumerary capacity, or in a lower officer rank than that for which the certificate held is valid immediately prior to taking up the rank for which it is valid.

2 The refresher and updating courses required by regulation II/7 shall be approved and include changes in relevant national and international regulations concerning the safety of life at sea and the protection of the marine environment and take account of any updating of the standard of competence concerned.

Section A-II/8
Revalidation of certificates for GMDSS radio operators

Professional competence

1 Continued professional competence, as required under regulation II/8, shall be established by:

.1 approved seagoing service performing functions appropriate to the certificate held for a period of at least:

.1 twelve months in total during the preceding five years; or

.2 three months in total during the preceding six months immediately prior to revalidating; or

.2 having performed functions considered to be equivalent to the seagoing service required in paragraph 1.1; or

.3 passing an approved test; or

.4 successfully completing an approved training course or courses; or

.5 having completed approved seagoing service performing functions appropriate to the certificate held for a period of not less than three months in a supernumerary capacity, or in a lower officer rank than that for which the certificate held is valid immediately prior to taking up the rank for which it is valid.

2 The refresher and updating courses required by regulation II/8 shall be approved and include changes in relevant national and international regulations concerning the safety of life at sea and the protection of the marine environment and take account of any updating of the standard of competence concerned.

CHAPTER III
Standards regarding basic training and onboard safety familiarization
for all fishing vessel personnel

Section A-III/1
Mandatory minimum requirements for basic training and onboard safety familiarization for all fishing vessel personnel

Basic training*

1 Fishing vessel personnel shall, before being assigned to any shipboard duties:

.1 receive appropriate approved basic training or instruction in:

.1 personal survival techniques as set out in table A-III/1-1;

.2 fire prevention and fire fighting as set out in table A-III/1-2;

.3 elementary first aid as set out in table A-III/1-3; and

.4 personal safety and social responsibilities as set out in table A-III/1-4;

.2 be required to provide evidence of having achieved the required standard of competence to undertake the tasks, duties and responsibilities listed in column 1 of tables A-III/1-1, A-III/1-2, A-III/1-3 and A-III/1-4 through:

.1 demonstration of competence, in accordance with the methods and the criteria for evaluating competence tabulated in columns 3 and 4 of those tables; and

.2 examination or continuous assessment as part of an approved training programme in the subjects listed in column 2 of those tables.

2 Fishing vessel personnel qualified in accordance with paragraph 1 in basic training shall be required, every five years, to provide evidence of having maintained the required standard of competence, to undertake the tasks, duties and responsibilities listed in column 1 of tables A-III/1-1 and A-III/1-2.

3 Parties may accept onboard training and experience for maintaining the required standard of competence in the following areas:

.1 personal survival techniques as set out in table A-III/1-1:

.1 don a lifejacket;

.2 board a survival craft from the ship, while wearing a lifejacket;

.3 take initial actions on boarding a lifeboat to enhance chance of survival;

.4 stream a lifeboat drogue or sea anchor;

.5 operate survival craft equipment; and

.6 operate locating devices, including radio equipment;

* The relevant IMO model course(s) may assist in the preparation of training material.

.2 fire prevention and fire fighting as set out in table A-III/1-2:

.1 use self-contained breathing apparatus; and

.2 effect a rescue in a smoke-filled space, using an approved smoke-generating device aboard, while wearing a breathing apparatus.

Onboard safety familiarization training

4 Before being assigned to shipboard duties, all persons employed or engaged on a seagoing fishing vessel, shall receive onboard safety familiarization training or receive sufficient information and instruction, taking into account guidance given in part B, to be able to:

.1 communicate with other persons on board on elementary safety matters and understand safety information symbols, signs and alarm signals;

.2 know what to do if:

.1 a person falls overboard;

.2 fire or smoke is detected; or

.3 the fire or abandon ship alarm is sounded;

.3 identify muster and embarkation stations and emergency escape routes;

.4 locate and don lifejackets;

.5 raise the alarm and have basic knowledge of the use of portable fire extinguishers;

.6 take immediate action upon encountering an accident or other medical emergency before seeking further medical assistance on board; and

.7 close and open the fire, weathertight and watertight doors fitted in the particular fishing vessel other than those for hull opening.

Exemptions

5 The Administration may, in respect of fishing vessels of less than 24 metres in length and/or operating solely in its limited waters, if it considers that a fishing vessel's size and the length or character of its voyage are such as to render the application of the full requirements of this section unreasonable or impracticable, exempt to that extent the fishing vessel personnel on such a fishing vessel or class of fishing vessel from some of the requirements, bearing in mind the safety of people on board, the fishing vessel and property and the protection of the marine environment.

Table A-III/1-1

Specification of minimum standard of competence in personal survival techniques

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Survive at sea in the event of ship abandonment	Types of emergency situations which may occur, such as collision, fire, foundering Types of life-saving appliances normally carried on board fishing vessels Equipment in survival craft Location of personal life-saving appliances Principles concerning survival, including: .1 value of training and drills .2 personal protective clothing and equipment .3 need to be ready for any emergency .4 actions to be taken when called to survival craft stations .5 actions to be taken when required to abandon ship .6 actions to be taken when in the water .7 actions to be taken when aboard a survival craft	Assessment of evidence obtained from approved instruction or during attendance at an approved course or approved in-service experience and examination, including practical demonstration of competence to: .1 don a lifejacket .2 don and use an immersion suit .3 safely jump from a height into the water .4 right an inverted liferaft while wearing a lifejacket .5 swim while wearing a lifejacket .6 keep afloat without a lifejacket .7 board a survival craft from the ship and water while wearing a lifejacket .8 take initial actions on boarding survival craft to enhance chance of survival .9 stream a drogue or sea anchor	Action taken on identifying muster signals is appropriate to the indicated emergency and complies with established procedures The timing and sequence of individual actions are appropriate to the prevailing circumstance and conditions and minimize potential dangers and threats to survival Method of boarding survival craft is appropriate and avoids dangers to other survivors Initial actions after leaving the ship and procedures and actions in water minimize threats to survival Description of how to assist others to board a survival craft Initial action after identifying a man overboard situation

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	.8 assistance to others to board a survival craft .9 main dangers to survivors Basic knowledge of man overboard procedures and for rescuing persons from the sea	.10 operate survival craft equipment .11 operate locating devices, including radio equipment	

Table A-III/1-2

Specification of minimum standard of competence in fire prevention and fire fighting

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Minimize the risk of fire and maintain a state of readiness to respond to emergency situations involving fire	Shipboard fire-fighting organization Location of fire-fighting appliances and emergency escape routes The elements of fire and explosion (the fire triangle) Types and sources of ignition Flammable materials, fire hazards and spread of fire including but not limited to: .1 radiation .2 convection .3 conduction with emphasis on dangers associated with freezing equipment The need for constant vigilance Actions to be taken on board ship Fire and smoke detection and automatic alarm systems Classification of fire and applicable extinguishing agents	Assessment of evidence obtained from approved instruction or attendance at an approved course	Initial actions on becoming aware of an emergency conform with accepted practices and procedures Action taken on identifying muster signals is appropriate to the indicated emergency and complies with established procedures

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Fight and extinguish fires	Fire-fighting equipment and its location on board Instruction in: .1 fixed installations .2 fire-fighter's outfits .3 personal equipment .4 fire-fighting appliances and equipment .5 fire-fighting methods .6 fire-fighting agents .7 fire-fighting procedures .8 use of breathing apparatus for fighting fires and effecting rescues .9 the effect of the use of the wrong agent	Assessment of evidence obtained from approved instruction or during attendance at an approved course, including practical demonstration in spaces which provide truly realistic training conditions (e.g. simulated shipboard conditions) and, whenever possible and practical, in darkness, of the ability to: .1 use various types of portable fire extinguishers .2 use self-contained breathing apparatus .3 extinguish smaller fires, e.g. electrical fires, oil fires, propane fires .4 extinguish extensive fires with water, using jet and spray nozzles .5 extinguish fires with foam, powder or any other suitable chemical agent .6 fight fire in smoke-filled enclosed spaces wearing self-contained breathing apparatus .7 extinguish fire with water fog or any other suitable fire-fighting agent in an	Clothing and equipment are appropriate to the nature of the fire-fighting operations The timing and sequence of individual actions are appropriate to the prevailing circumstances and conditions Extinguishment of fire is achieved using appropriate procedures, techniques and fire-fighting agents Breathing apparatus procedures and techniques comply with accepted practices and procedures Explanation of the effect of using the wrong extinguishing agent is appropriate

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
		accommodation room or simulated engine-room with fire and heavy smoke .8 extinguish oil fire with fog applicator and spray nozzles, dry chemical powder or foam applicators .9 effect a rescue in a smoke-filled space wearing breathing apparatus	

Table A-III/1-3

Specification of minimum standard of competence in elementary first aid

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Take immediate action upon encountering as accident or other medical emergency	Assessment of needs of casualties and threats to own safety Appreciation of body structure and functions Understanding of immediate measures to be taken in cases of emergency, including the ability to: .1 position casualty .2 apply resuscitation techniques .3 control bleeding .4 apply appropriate measures of basic shock management .5 apply appropriate measures in event of burns and scalds, including accidents caused by electric current .6 rescue and transport a casualty .7 improvise bandages and use materials in the emergency kit	Assessment of evidence obtained from approved instruction or during attendance at an approved course	The manner and timing of raising the alarm is appropriate to the circumstances of the accident or medical emergency The identification of probable cause, nature and extent of injuries is prompt and complete, and the priority and sequence of actions is proportional to any potential threat to life Risk of further harm to self and casualty is minimized at all times

Table A-III/1-4

Specification of minimum standard of competence in personal safety and social responsibilities

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Comply with emergency procedures	Types of emergency which may occur, such as collision, fire, foundering Knowledge of shipboard contingency plans for response to emergencies Emergency signals and specific duties allocated to crew members in the muster list; muster stations; correct use of personal safety equipment Identification of, and action to take on discovering, potential emergencies on board fishing vessels, including fire, collision, foundering and ingress of water into the fishing vessel Action to take on hearing emergency alarm signals Value of training and drills Knowledge of escape routes and internal communication and alarm systems	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Initial action on becoming aware of an emergency conforms to established emergency response procedures Information given on raising alarm is prompt, accurate, complete and clear

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
Take precautions to prevent pollution of the marine environment	Basic knowledge of the impact of fishing on the marine environment and the effects of operational or accidental pollution on it Basic knowledge of environmental protection procedures Basic knowledge of marine ecology and understanding of the complexity and diversity of the marine environment Basic knowledge of the responsibilities of fishing vessel personnel under the MARPOL Convention with regard to pollution response equipment Recognition and measures to be taken to prevent pollution by abandoned, lost or otherwise discarded fishing gear and fish packing material Basic knowledge of correct disposal of fishing gear and fish packing material Knowledge of the impacts of plastic waste on the marine environment Understanding the scale of the marine plastic litter problem and the way the	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Organizational procedures designed to safeguard the marine environment are observed at all times Legislative requirements relating to the protection of the marine environment are correctly identified

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	maritime sector contributes to the problem, including the issue of abandoned, lost or otherwise discarded fishing gear (ALDFG)		
Observe safe working practices	Importance of adhering to safe working practices at all times Safety and protective devices available to protect against potential hazards aboard ship Precautions to be taken prior to entering enclosed spaces Familiarization with international measures concerning accident prevention and occupational health* Understanding of the legal requirements that control safety in the fishing industry Understanding of health and safety hazards Awareness of risks on board fishing vessel specifically during fishing operation Basic knowledge of fishing equipment on board fishing vessels and its safe use	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Safe working practices are observed, and appropriate safety and protective equipment is correctly used at all times Correct identification of "hazards" likely to be found on a fishing vessel and methods to remove or reduce "risk"

* The ILO Code of Practice on accident prevention on board ship at sea and in port may be of assistance in the preparation of courses.

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Understand what is a: .1 hazard .2 risk Basic knowledge of a risk assessment process and methods to reduce risk		
Contribute to effective communications on board ship	Understand the principles of, and barriers to, effective communication between individuals and teams within the ship Ability to establish and maintain effective communications	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Communications are clear and effective at all times
Contribute to effective human relationships on board ship	Importance of maintaining good human and working relationships aboard ship Basic teamworking principles and practice, including conflict resolution Social responsibilities; conditions for employment or engagement on board; and individual rights and obligations, and applicable legislation Understanding the dangers of drug and alcohol abuse	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Expected standards of work and behaviour are observed at all times
Understand and take necessary actions to control fatigue	Importance of obtaining the necessary rest	Assessment of evidence obtained from approved instruction or during attendance at an approved course	Fatigue management practices are observed and appropriate actions are used at all times

Column 1	Column 2	Column 3	Column 4
Competence	**Knowledge, understanding and proficiency**	**Methods for demonstrating competence**	**Criteria for evaluating competence**
	Effects of sleep, schedules and the circadian rhythm on fatigue Effects of physical stressors on fishing vessel personnel Effects of environmental stressors in and outside the ship and their impact on fishing vessel personnel Effects of schedule changes on fishing vessel personnel fatigue		

CHAPTER IV
Standards regarding watchkeeping

Section A-IV/1
Fitness for duty

(No provisions)

Section A-IV/2
Basic watchkeeping principles to be observed on board fishing vessels

1.1 En route to or from fishing grounds

1.1.1 Arrangements of the navigational watch

1.1.1.1 The composition of the watch shall at all times be adequate and appropriate to the prevailing circumstances and conditions, and shall take into account the need for maintaining a proper lookout.

1.1.1.2 When deciding the composition of the watch the following factors, inter alia, shall be taken into account:

.1 at no time shall the wheelhouse be left unattended;

.2 weather conditions, visibility and whether there is daylight or darkness;

.3 proximity of navigational hazards which may make it necessary for the officer in charge of the watch to carry out additional navigational duties;

.4 use and operational condition of navigational aids such as radar or electronic position-indicating devices and of any other equipment affecting the safe navigation of the vessel;

.5 whether the vessel is fitted with automatic steering; and

.6 any unusual demands on the navigational watch that may arise as a result of special operational circumstances.

1.1.2 Navigation

1.1.2.1 The intended voyage shall, as far as practicable, be planned in advance taking into consideration all pertinent information, and any course laid down shall be checked before the voyage commences.

1.1.2.2 During the watch the course steered, position and speed shall be checked at sufficiently frequent intervals, using any available navigational aids necessary, to ensure that the vessel follows the planned course.

1.1.2.3 The officer in charge of the watch shall have full knowledge of the location and operation of all safety and navigational equipment on board the vessel, and shall be aware and take account of the operating limitations of such equipment.

1.1.2.4 The officer in charge of a navigational watch shall not be assigned or undertake any duties which would interfere with the safe navigation of the vessel.

1.1.3 Navigational equipment

1.1.3.1 The officers in charge of the watch shall make the most effective use of all navigational equipment at their disposal.

1.1.3.2 When using radar the officer in charge of the watch shall bear in mind the necessity to comply at all times with the provisions on the use of radar contained in the applicable regulations for preventing collisions at sea.

1.1.3.3 In cases of need the officer of the watch shall not hesitate to use the helm, engines, and sound and light signalling apparatus.

1.1.4 Navigational duties and responsibilities

1.1.4.1 The officer in charge of the watch shall:

.1 keep watch in the wheelhouse;

.2 in no circumstances leave the wheelhouse until properly relieved;

.3 continue to be responsible for the safe navigation of the vessel despite the presence of the skipper in the wheelhouse until informed specifically that the skipper has assumed that responsibility and this is mutually understood;

.4 notify the skipper when in any doubt as to what action to take in the interest of safety; and

.5 not hand over the watch to a relieving officer if there is reason to believe that the latter is not capable of carrying out the watchkeeping duties effectively, in which case the skipper shall be notified.

1.1.4.2 On taking over the watch the relieving officer shall confirm and be satisfied as to the vessel's estimated or true position and confirm its intended track, course and speed, and shall note any dangers to navigation expected to be encountered during the watch.

1.1.4.3 Whenever practicable a proper record shall be kept of the movements and activities during the watch relating to the navigation of the vessel.

1.1.5 Lookout

1.1.5.1 Proper lookout shall be maintained in compliance with rule 5 of the International Regulations for Preventing Collisions at Sea, 1972. It shall serve the purpose of:

.1 maintaining a continuous state of vigilance by sight and hearing as well as by all other available means, with regard to any significant changes in the operating environment;

.2 fully appraising the situation and the risk of collision, stranding and other dangers to navigation; and

.3 detecting vessels or aircraft in distress, shipwrecked persons, wrecks and debris.

1.1.5.2 In determining that the composition of the navigational watch is adequate to ensure that a proper lookout can continuously be maintained, the skipper shall take into account all relevant factors, including those described under paragraph 4.1 of this regulation, as well as the following factors:

.1 visibility, state of weather and sea;

.2 traffic density, and other activities occurring in the area in which the vessel is navigating;

.3 the attention necessary when navigating in or near traffic separation schemes and other routeing measures;

.4 the additional workload caused by the nature of the vessel's functions, immediate operating requirements and anticipated manoeuvres;

.5 rudder and propeller control and vessel manoeuvring characteristics;

.6 the fitness for duty of any crew members on call who may be assigned as members of the watch;

.7 knowledge of and confidence in the professional competence of the vessel's officers and crew;

.8 the experience of the officer of the navigational watch and the familiarity of that officer with the vessel's equipment, procedures, and manoeuvring capability;

.9 activities taking place on board the vessel at any particular time, and the availability of assistance to be summoned immediately to the wheelhouse when necessary;

.10 the operational status of instrumentation in the wheelhouse and controls, including alarm systems;

.11 the size of the vessel and the field of vision available from the conning position;

.12 the configuration of the wheelhouse, to the extent such configuration might inhibit a member of the watch from detecting by sight or hearing any external developments; and

.13 any relevant standards, procedures and guidelines relating to watchkeeping arrangements and fitness for duty which have been adopted by the Organization.

1.1.6 Protection of the marine environment

The skipper and the officer in charge of the watch shall be aware of the serious effects of operational or accidental pollution of the marine environment, and shall take all possible precautions to prevent such pollution, particularly within the framework of relevant international and port regulations.

1.1.7 Weather conditions

The officer in charge of the watch shall take relevant measures and notify the skipper when adverse changes in weather could affect the safety of the vessel, including conditions leading to ice accretion.

1.2 Navigation with pilot embarked

The presence of a pilot on board does not relieve the skipper or officer in charge of the watch from their duties and obligations for the safety of the vessel. The skipper and the pilot shall exchange information regarding navigation procedures, local conditions and the vessel's characteristics. The skipper and the officer in charge of the watch shall cooperate closely with the pilot and maintain an accurate check of the vessel's position and movement.

1.3 Vessels engaged in fishing or searching for fish

1.3.1 In addition to the principles enumerated in paragraph 4, the following factors shall be considered and properly acted upon by the officer in charge of the watch:

.1 other vessels engaged in fishing and their gear, own vessel's manoeuvring characteristics, particularly its stopping distance and the diameter of turning circle at sailing speed and with the fishing gear overboard;

.2 safety of the crew on deck;

.3 stability and freeboard caused by exceptional forces resulting from fishing operations, catch handling and stowage, and unusual sea and weather conditions;

.4 the proximity of offshore structures, with special regard to the safety zones; and

.5 wrecks and other underwater obstacles which could be hazardous for fishing gear.

1.3.2 When stowing the catch, attention shall be given to the essential requirements for adequate freeboard, adequate stability and watertight integrity at all times during the voyage to the landing port, taking into consideration consumption of fuel and stores, risk of adverse weather conditions and, especially in winter, risk of ice accretion on or above exposed decks in areas where ice accretion is likely to occur.

1.4 Anchor watch

The skipper shall ensure, with a view to the safety of the vessel and the crew, that a proper watch is maintained at all times from the wheelhouse or deck on fishing vessels at anchor.

2 Engineering watch

2.1 Principles to be observed in keeping an engineering watch

Duties associated with taking/handing over and accepting a watch

2.1.1 The officer in charge of the engineering watch shall not hand over the watch to the relieving officer if there is reason to believe that the latter is obviously not capable of carrying

out the watchkeeping duties effectively, in which case the chief engineer officer shall be notified.

2.1.2 The relieving officer of the engineering watch shall ensure that the members of the relieving engineering watch are apparently fully capable of performing their duties effectively.

2.1.3 Prior to taking over the engineering watch, relieving officers shall satisfy themselves regarding general and specific conditions relating to the safe operation of engine-room systems.

2.1.4 Before going off duty, the officer in charge of the engineering watch shall ensure that all events related to the main and auxiliary machinery which have occurred during the engineering watch are suitably recorded.

Routine duties to be undertaken during a watch

2.1.5 The officer in charge of the engineering watch shall continue to be responsible for machinery space operations, despite the presence of the chief engineer officer in the machinery spaces, until specifically informed that the chief engineer officer has assumed such responsibility, and this is mutually understood.

2.1.6 The officer in charge of the engineering watch shall be familiar with the assigned watchkeeping duties.

2.1.7 The officer in charge of the engineering watch shall be responsible for the isolation, bypassing and adjustment of all machinery under the responsibility of the engineering watch that is to be worked on, and shall record all work carried out.

Maintenance of machinery space logs and the importance of the readings taken

2.1.8 Detailed repair maintenance involving repairs to electrical, mechanical, hydraulic, pneumatic or applicable electronic equipment throughout the ship shall be performed under the awareness of the officer in charge of the engineering watch and chief engineer officer. These repairs shall be recorded.

2.2 Safety and emergency procedures; changeover of remote/automatic to local control of all systems

2.2.1 Officers in charge of the engineering watch shall:

.1 in emergencies, raise the alarm when in their opinion the situation so demands, and take all possible measures to prevent damage to the vessel and persons on board;

.2 be aware of the deck officer's needs relating to the equipment required in the loading or unloading of fish catches and the additional requirements of the ballast and other vessel stability control systems;

.3 make frequent rounds of inspection to determine possible equipment malfunction or failure, and take immediate remedial action to ensure the safety of the vessel and the environment;

.4 ensure that the necessary precautions are taken, within their area of responsibility, to prevent accidents or damage to the various electrical, electronic, hydraulic, pneumatic, mechanical and refrigeration systems of the

vessel including appropriate changeover of remote/automatic to local control of all systems;

.5 ensure that all important events affecting the operation, adjustment or repair of the vessel's machinery are appropriately recorded; and

.6 pay attention to the techniques, methods and procedures necessary to prevent violation of pollution regulations of the local authorities.

2.3 Safety precautions to be observed during a watch and immediate actions to be taken in the event of fire or accident, with particular reference to oil systems

2.3.1 The officer in charge of the engineering watch shall take action necessary to contain the effects of damage resulting from equipment breakdown, fire, flooding, rupture, collision, stranding, oil pollution or other cause.

2.3.2 The officer in charge of the engineering watch shall bear in mind that changes in speed, resulting from machinery malfunction, or any loss of steering, may endanger the safety of the ship and life at sea. The bridge shall be immediately notified, in the event of fire, and of any impending action in machinery spaces that may cause reduction in the ship's speed, imminent steering failure, stoppage of the ship's propulsion system or any alteration in the generation of electric power or similar threat to safety. This notification, where possible, shall be accomplished before changes are made, in order to afford the bridge the maximum available time to take whatever action is possible to avoid a potential marine casualty.

2.3.3 The officer in charge of the engineering watch shall notify the chief engineer officer without delay:

.1 when engine damage or a malfunction that may endanger the safe operation of the ship occurs;

.2 when any malfunction that may cause damage or breakdown of propulsion machinery, auxiliary machinery or monitoring and governing systems occurs; and

.3 in any emergency or if in any doubt as to what decision or measures to take.

3 Radio watchkeeping

The skipper shall ensure that an adequate radio watch is maintained while the vessel is at sea, on appropriate frequencies, taking into account the requirements of the Radio Regulations.

FISHING VESSEL PERSONNEL TRAINING, CERTIFICATION AND WATCHKEEPING CODE

Part B

RECOMMENDED GUIDANCE REGARDING PROVISIONS OF THE STCW-F CONVENTION AND ITS ANNEX

Introduction

1 This part of the STCW-F Code contains recommended guidance intended to assist Parties to the STCW-F Convention and those involved in implementing, applying or enforcing its measures to give the Convention full and complete effect in a uniform manner.

2 The measures suggested are not mandatory, and the examples given are only intended to illustrate how certain Convention requirements may be complied with. However, the recommendations in general represent an approach to the matters concerned which has been harmonized through discussion within IMO involving, where appropriate, consultation with the International Labour Organization, the International Telecommunication Union and the World Health Organization.

3 Observance of the recommendations contained in this part will assist the Organization in achieving its goal of maintaining the highest practicable standards of competence in respect of fishing vessel personnel of all nationalities and fishing vessels of all flags.

4 Guidance is provided in this part in respect of certain articles of the Convention, in addition to guidance on certain regulations in its annex. The numbering of the sections of this part therefore corresponds with that of the articles and the regulations of the Convention. As in part A, the text of each section may be divided into numbered parts and paragraphs, but such numbering is unique to that text alone.

Chapter I
Guidance regarding general provisions

Section B-I/1

(No provisions)

Section B-I/2

(No provisions)

Section B-I/3

(No provisions)

Section B-I/4

(No provisions)

Section B-I/5-1

(No provisions)

Section B-I/5-1

(No provisions)

Section B-I/6

(No provisions)

Section B-I/7

(No provisions)

Section B-I/8

(No provisions)

Section B-I/9

(No provisions)

Section B-I/10

(No provisions)

Section B-I/11

(No provisions)

Section B-I/12
Guidance regarding medical standards

Medical examination and certification

1 Parties, in establishing fishing vessel personnel medical fitness standards and provisions, should take into account the minimum physical abilities set out in table B-I/12 and the guidance given within this section, bearing in mind the different duties of fishing vessel personnel.

2 Parties, in establishing fishing vessel personnel medical fitness standards and provisions, should follow the guidance contained in the [*Guidelines on the medical examinations of fishing vessel personnel*], including any subsequent versions, and any other applicable international guidelines published by the International Labour Organization, the International Maritime Organization or the World Health Organization.

3 Appropriate qualifications and experience for medical practitioners conducting medical fitness examinations of fishing vessel personnel may include occupational health or maritime health qualifications, experience of working as a fishing vessel's doctor or a fishing company doctor or working under the supervision of someone with the aforementioned qualifications or experience.

4 The premises where medical fitness examinations are carried out should have the facilities and equipment required to carry out medical fitness examinations of fishing vessel personnel.

5 Administrations should ensure that recognized medical practitioners enjoy full professional independence in exercising their medical judgement when undertaking medical examination procedures.

6 Persons applying for a medical certificate should present to the recognized medical practitioner appropriate identity documentation to establish their identity. They should also surrender their previous medical certificate.

7 Each Administration has the discretionary authority to grant a variance or waiver of any of the standards set out in table B-I/12 hereunder, based on an assessment of a medical evaluation and any other relevant information concerning an individual's adjustment to the condition and proven ability to satisfactorily perform assigned shipboard functions.

8 The medical fitness standards should, so far as possible, define objective criteria with regard to fitness for sea service, taking into account access to medical facilities and medical expertise on board fishing vessel. They should, in particular, specify the conditions under which fishing vessel personnel suffering from potentially life-threatening medical conditions that are controlled by medication may be allowed to continue to serve at sea.

9 The medical standards should also identify particular medical conditions, such as colour blindness, which might preclude fishing vessel personnel holding particular positions on board fishing vessel.

10 The minimum in-service eyesight standards in each eye for unaided distance vision should be at least 0.1.*

11 Persons requiring the use of spectacles or contact lenses to perform duties should have a spare pair or pairs, as required, conveniently available on board the fishing vessel. Any need to wear visual aids to meet the required standards should be recorded on the medical fitness certificate issued.

12 Colour vision testing should be in accordance with the International Recommendations for Colour Vision Requirements for Transport, published by the Commission Internationale de l'Eclairage (CIE 143-2001, including any subsequent versions) or equivalent test methods.

TableB-I/12

Assessment of minimum entry level and in-service physical abilities for fishing vessel personnel [3]

Shipboard task, function, event or condition[3]	**Related physical ability**	**medical examiner should be satisfied that the candidate:**[4]
Routine movement around vessel: - on moving deck - between levels - between compartments *Note 1 applies to this row*	Maintain balance and move with agility Climb up and down vertical ladders and stairways Step over coamings Open and close watertight doors	Has no disturbance in sense of balance does not have any impairment or disease that prevents relevant movements and physical activities Is, without assistance[5], able to: - climb vertical ladders and stairways - step over high sills - manipulate door closing systems
Routine tasks on board: - use of hand tools - movement of ship's stores - overhead work - valve operation - standing a four-hour watch - working in confined spaces - responding to alarms, warnings and instructions - verbal communication	Strength, dexterity and stamina to manipulate mechanical devices Lift, pull and carry a load (e.g. 18 kg) Reach upwards Stand, walk and remain alert for an extended period Work in constricted spaces and move through restricted	Does not have a defined impairment or diagnosed medical condition that reduces ability to perform routine duties essential to the safe operation of the vessel Has ability to: - work with arms raised - stand and walk for an extended period - enter confined space - fulfil eyesight standards (table A-I/12) - fulfil hearing standards set by

* Value given in Snellen decimal notation.

Shipboard task, function, event or condition[3]	**Related physical ability**	**medical examiner should be satisfied that the candidate:**[4]
Note 1 applies to this row	openings Visually distinguish objects, shapes and signals Hear warnings and instructions Give a clear spoken description	competent authority or take - account of international guidelines - hold normal conversation
Emergency duties[6] on board: - escape - fire-fighting - evacuation *Note 2 applies to this row*	Don a lifejacket or immersion suit Escape from smoke-filled spaces Take part in fire-fighting duties, including use of breathing apparatus Take part in vessel evacuation procedures	Does not have a defined impairment or diagnosed medical condition that reduces ability to perform emergency duties essential to the safe operation of the vessel Has ability to: - don lifejacket or immersion suit - crawl - feel for differences in temperature - handle fire-fighting equipment - wear breathing apparatus (where required as part of duties)

Notes:

1 Rows 1 and 2 of the above table describe: (a) ordinary shipboard tasks, functions, events and conditions; (b) the corresponding physical abilities which may be considered necessary for the safety of a fishing vessel personnel, other crew members and the fishing vessel; and (c) high-level criteria for use by medical practitioners assessing medical fitness, bearing in mind the different duties of fishing vessel personnel and the nature of shipboard work for which they will be employed.

2 Row 3 of the above table describes: (a) emergency shipboard tasks, functions, events and conditions; (b) the corresponding physical abilities which should be considered necessary for the safety of a fishing vessel personnel, other crew members and the fishing vessel; and (c) high-level criteria for use by medical practitioners assessing medical fitness, bearing in mind the different duties of fishing vessel personnel and the nature of shipboard work for which they will be employed.

3 This table is not intended to address all possible shipboard conditions or potentially disqualifying medical conditions. Parties should specify physical abilities applicable to the category of fishing vessel personnel (such as "deck officer" and "engine rating"). The special circumstances of individuals and for those who have specialized or limited duties should receive due consideration.

4 If in doubt, the medical practitioner should quantify the degree or severity of any relevant impairment by means of objective tests, whenever appropriate tests are available, or by referring the candidate for further assessment.

5 The term "assistance" means the use of another person to accomplish the task.

6 The term "emergency duties" is used to cover all standard emergency response situations such as abandon ship or fire-fighting as well as the procedures to be followed by each fishing vessel personnel to secure personal survival.

Chapter II

Guidance regarding certification of skippers, officers, engineers and radio operators

Section B-II/1

(No provisions)

Section B-II/2

Guidance regarding the certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in unlimited water

1 The training regarding sustainable fisheries required in section A-II/2 should include the following theoretical and practical knowledge:

.1 recognize economic aspects of sustainable fishing, including:

.1 knowledge of economic aspects of fishing, including all costs and benefits associated with operating a fishing vessel;

.2 understanding the position of fishers in the supply chain (the way in which fish travel from vessel to consumers); and

.3 be able to identify ways to make fishing more economically sustainable.

.2 apply fishing management and conservation principles, including understanding:

.1 the need of fishing management for the sustainable development of the fishing industry and the international instruments to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing;

.2 the roles of scientists and governments in fisheries management; and

.3 the goals of different elements of fishing management, including responsible harvesting practices and responsible fishing gear/selectivity; and

.3 apply fishing management and conservation principles, including understanding:

.1 the need for sustainable management and development of the fishing industry;

.2 the international instruments on fisheries conservation and management and to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing;

.3 the roles of scientists, Governments and competent fisheries management authorities* in fisheries management; and,

* Including regional fisheries management organizations (RFMOs) of which they are members.

.4 the goals of different elements of fishing management, including responsible harvesting practices and responsible fishing gear/selectivity; and

.4 recognize the social aspects of sustainable fisheries, including:

.1 understanding that care for the human element (social equity) and interaction with society (societal acceptance) are part of a sustainable fishing industry;

.2 understanding the elements of fair treatment of fishing vessel personnel, including but not limited to fair wages, safe working conditions and humane treatment; and

.3 basic knowledge of relevant ILO conventions and national legislation concerning safe and humane working conditions.

Section B-II/3

(No provisions)

Section B-II/4
Guidance regarding the certification of officers in charge of a navigational watch on fishing vessels of 24 metres in length and over operating in limited water

1 The training regarding sustainable fisheries required in section A-II/4 should include the following theoretical and practical knowledge:

.1 recognize economic aspects of sustainable fishing, including:
.1 knowledge of economic aspects of fishing, including all costs and benefits associated with operating a fishing vessel;

.2 understanding the position of fishers in the supply chain (the way in which fish travel from vessel to consumers); and

.3 be able to identify ways to make fishing more economically sustainable.

.2 apply fishing management and conservation principles, including understanding:

.1 the need of fishing management for the sustainable development of the fishing industry and the international instruments to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing;

.2 the roles of scientists and governments in fisheries management; and

.3 the goals of different elements of fishing management, including responsible harvesting practices and responsible fishing gear/selectivity; and

.3 apply fishing management and conservation principles, including understanding:

.1 the need for sustainable management and development of the fishing industry;

.2 the international instruments on fisheries conservation and management and to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing;

.3 the roles of scientists, Governments and competent fisheries management authorities* in fisheries management; and,

.4 the goals of different elements of fishing management, including responsible harvesting practices and responsible fishing gear/selectivity; and

.4 recognize the social aspects of sustainable fisheries, including:

.1 understanding that care for the human element (social equity) and interaction with society (societal acceptance) are part of a sustainable fishing industry;

.2 understanding the elements of fair treatment of fishing vessel personnel, including but not limited to fair wages, safe working conditions and humane treatment; and

.3 basic knowledge of relevant ILO conventions and national legislation concerning safe and humane working conditions.

Section B-II/5-1-1

(No provisions)

Section B-II/5-1-2

(No provisions)

Section B-II/5-2
Guidance regarding the certification of officers in charge of an engineering watch in a manned engine-room or designated duty engineers in a periodically unmanned engine-room of fishing vessels powered by main propulsion machinery of 750 kW propulsion power or more

1 The training regarding sustainable fisheries required in section A-II/5-2 should include the following theoretical and practical knowledge:

.1 recognize economic aspects of sustainable fishing, including:

.1 knowledge of economic aspects of fishing, including all costs and benefits associated with operating a fishing vessel;

* Including regional fisheries management organizations (RFMOs) of which they are members.

.2 understanding the position of fishers in the supply chain (the way in which fish travel from vessel to consumers); and

.3 be able to identify ways to make fishing more economically sustainable.

.2 apply fishing management and conservation principles, including understanding:

.1 the need of fishing management for the sustainable development of the fishing industry and the international instruments to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing;

.2 the roles of scientists and governments in fisheries management; and

.3 the goals of different elements of fishing management, including responsible harvesting practices and responsible fishing gear/selectivity; and

.3 apply fishing management and conservation principles, including understanding:

.1 the need for sustainable management and development of the fishing industry;

.2 the international instruments on fisheries conservation and management and to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing;

.3 the roles of scientists, Governments and competent fisheries management authorities* in fisheries management; and

.4 the goals of different elements of fishing management, including responsible harvesting practices and responsible fishing gear/selectivity; and

.4 recognize the social aspects of sustainable fisheries, including:

.1 understanding that care for the human element (social equity) and interaction with society (societal acceptance) are part of a sustainable fishing industry;

.2 understanding the elements of fair treatment of fishing vessel personnel, including but not limited to fair wages, safe working conditions and humane treatment; and

.3 basic knowledge of relevant ILO conventions and national legislation concerning safe and humane working conditions.

* Including regional fisheries management organizations (RFMOs) of which they are members.

Section B-II/6
Guidance regarding training and certification of GMDSS radio operators on board fishing vessels

TRAINING RELATED TO THE FIRST-CLASS RADIOELECTRONIC CERTIFICATE

General

1 The requirements of medical fitness, especially as to hearing, eyesight and speech, should be met by the candidate before training is commenced.

2 The training should be relevant to the provisions of the STCW-F Convention, the Radio Regulations and the 2012 Cape Town Agreement, with particular attention given to the provisions of chapter IX therein. In developing training requirements, account should be taken of at least the knowledge and training given in paragraphs 3 to 14 below.

Theory

3 Knowledge of the general principles and basic factors necessary for safe and efficient use of all subsystems and equipment required in the GMDSS, sufficient to support the practical training provisions given in paragraph 13.

4 Knowledge of the use, operation and service areas of GMDSS subsystems, including satellite system characteristics, navigational and meteorological warning systems and selection of appropriate communication circuits.

5 Knowledge of the principles of electricity and the theory of radio and electronics sufficient to meet the provisions given in paragraphs 6 to 10 below.

6 Theoretical knowledge of GMDSS radiocommunication equipment, including narrow-band direct-printing telegraphy and radio-telephone transmitters and receivers, digital selective calling equipment, ship earth stations, emergency position-indicating radio beacons (EPIRBs), marine antenna systems, radio equipment for survival craft together with all auxiliary items, including power supplies, as well as general knowledge of the principles of other equipment generally used for radionavigation, with particular reference to maintaining the equipment in service.

7 Knowledge of factors that affect system reliability, availability, maintenance procedures and proper use of test equipment.

8 Knowledge of microprocessors and fault diagnosis in systems using microprocessors.

9 Knowledge of control systems in the GMDSS radio equipment, including testing and analysis.

10 Knowledge of the use of computer software for the GMDSS radio equipment and methods for correcting faults caused by loss of software control of the equipment.

Regulations and documentation

11 Knowledge of:

.1 the 2012 Cape Town Agreement and the Radio Regulations, with particular emphasis on:

.1 distress, urgency and safety radiocommunications;

.2 avoiding harmful interference, particularly with distress and safety traffic; and

.3 prevention of unauthorized transmissions;

.2 other documents relating to operational and communication procedures for distress, urgency, safety and general radiocommunications, including charges, navigational warnings, and weather broadcasts in the Maritime Mobile Service and the Maritime Mobile Satellite Service; and

.3 use of the International Code of Signals and the IMO Standard Marine Communication Phrases.

Watchkeeping and procedures

12 Knowledge of and training in:

.1 communication procedures and discipline to prevent harmful interference in GMDSS subsystems;

.2 procedures for using propagation-prediction information to establish optimum frequencies for communications;

.3 radiocommunication watchkeeping relevant to all GMDSS subsystems, exchange of radiocommunication traffic, particularly concerning distress, urgency and safety procedures, and radio records;

.4 use of the international phonetic alphabet;

.5 monitoring a distress frequency while simultaneously monitoring or working on at least one other frequency;

.6 ship reporting systems and procedures;

.7 radiocommunication procedures of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual;

.8 radio medical systems and procedures; and

.9 causes of false distress alerts and means to avoid them.*

Practical

13 Practical training, supported by appropriate laboratory work, should be given in:

.1 correct and efficient operation of all GMDSS subsystems and equipment under normal propagation conditions and under typical interference conditions;

* See resolution MSC.514(105) – *Guidelines for the avoidance of false distress alerts*.

.2 safe operation of all the GMDSS communication equipment and ancillary devices, including safety precautions;

.3 adequate and accurate keyboard skills for the satisfactory exchange of communications;

.4 operational techniques for:

.1 receiver and transmitter adjustment for the appropriate mode of operation, including digital selective calling and direct-printing telegraphy;

.2 antenna adjustment and realignment, as appropriate;

.3 use of radio life-saving appliances; and

.4 use of emergency position-indicating radio beacons (EPIRBs);

.5 antenna rigging, repair and maintenance, as appropriate;

.6 reading and understanding pictorial, logic and circuit diagrams;

.7 use and care of those tools and test instruments necessary to carry out at-sea electronic maintenance;

.8 manual soldering and desoldering techniques, including those involving semiconductor devices and modern circuits, and the ability to distinguish whether the circuit is suitable to be manually soldered or desoldered;

.9 tracing and repair of faults to component level, where practicable, and to board/module level in other cases;

.10 recognition and correction of conditions contributing to the fault occurring;

.11 maintenance procedures, both preventive and corrective, for all GMDSS communication equipment and radionavigation equipment; and

.12 methods of alleviating electrical and electromagnetic interference such as bonding, shielding and bypassing.

Miscellaneous

14 Knowledge of and/or training in:

.1 the English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea;

.2 world geography, especially the principal shipping routes, services of rescue coordination centres (RCCs) and related communication routes;

.3 survival at sea, the operation of lifeboats, rescue boats, liferafts, buoyant apparatus and their equipment, with special reference to radio life-saving appliances;

.4 fire prevention and fire fighting, with particular reference to the radio installation;

.5 preventive measures for the safety of ship and personnel in connection with hazards related to radio equipment, including electrical, radiation, chemical and mechanical hazards;

.6 first aid, including heart-respiration revival techniques; and

.7 coordinated universal time (UTC), global time zones and the international date line.

TRAINING RELATED TO THE SECOND-CLASS RADIOELECTRONIC CERTIFICATE

General

15 The requirements of medical fitness, especially as to hearing, eyesight and speech, should be met by the candidate before training is commenced.

16 The training should be relevant to the provisions of the STCW-F Convention, the Radio Regulations and the 2012 Cape Town Agreement, with particular attention given to the provisions of chapter IX therein. In developing training requirements, account should be taken of at least the knowledge and training given in paragraphs 17 to 28 below. *

Theory

17 Knowledge of the general principles and basic factors necessary for safe and efficient use of all subsystems and equipment required in the GMDSS, sufficient to support the practical training provisions given in paragraph 27 below.

18 Knowledge of the use, operation and service areas of GMDSS subsystems, including satellite system characteristics, navigational and meteorological warning systems and selection of appropriate communication circuits.

19 Knowledge of the principles of electricity and the theory of radio and electronics sufficient to meet the provisions given in paragraphs 20 to 24 below.

20 General theoretical knowledge of GMDSS radiocommunication equipment, including narrow-band direct-printing telegraphy and radio-telephone transmitters and receivers, digital selective calling equipment, ship earth stations, emergency position-indicating radio beacons (EPIRBs), marine antenna systems, radio equipment for survival craft together with all auxiliary items, including power supplies, as well as general knowledge of other equipment generally used for radionavigation, with particular reference to maintaining the equipment in service.

21 General knowledge of factors that affect system reliability, availability, maintenance procedures and proper use of test equipment.

22 General knowledge of microprocessors and fault diagnosis in systems using microprocessors.

23 General knowledge of control systems in the GMDSS radio equipment, including testing and analysis.

* The relevant IMO model course(s) may be of assistance in the preparation of courses.

24 Knowledge of the use of computer software for the GMDSS radio equipment and methods for correcting faults caused by loss of software control of the equipment.

Regulations and documentation

25 Knowledge of:

.1 the 2012 Cape Town Agreement and the Radio Regulations, with particular emphasis on:

.1 distress, urgency and safety radiocommunications;

.2 avoiding harmful interference, particularly with distress and safety traffic; and

.3 the prevention of unauthorized transmissions;

.2 other documents relating to operational and communication procedures for distress, urgency, safety and general radiocommunications, including charges, navigational warnings, and weather broadcasts in the Maritime Mobile Service and the Maritime Mobile Satellite Service; and

.3 the use of the International Code of Signals and the IMO Standard Marine Communication Phrases.

Watchkeeping and procedures

26 Training should be given in:

.1 communication procedures and discipline to prevent harmful interference in GMDSS subsystems;

.2 procedures for using propagation-prediction information to establish optimum frequencies for communications;

.3 radiocommunication watchkeeping relevant to all GMDSS subsystems, exchange of radiocommunication traffic, particularly concerning distress, urgency and safety procedures, and radio records;

.4 use of the international phonetic alphabet;

.5 monitoring a distress frequency while simultaneously monitoring or working on at least one other frequency;

.6 ship reporting systems and procedures;

.7 radiocommunication procedures of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual;

.8 radio medical systems and procedures; and

.9 causes of false distress alerts and means to avoid them.*

* See resolution MSC.514(105) – *Guidelines for the avoidance of false distress alerts*.

Practical

27 Practical training, supported by appropriate laboratory work, should be given in:

.1 correct and efficient operation of all GMDSS subsystems and equipment under normal propagation conditions and under typical interference conditions;

.2 safe operation of all the GMDSS communication equipment and ancillary devices, including safety precautions;

.3 adequate and accurate keyboard skills for the satisfactory exchange of communications;

.4 operational techniques for:

.1 receiver and transmitter adjustment for the appropriate mode of operation, including digital selective calling and direct-printing telegraphy;

.2 antenna adjustment and realignment, as appropriate;

.3 use of radio life-saving appliances; and

.4 use of emergency position-indicating radio beacons (EPIRBs);

.5 antenna rigging, repair and maintenance, as appropriate;

.6 reading and understanding pictorial, logic and module interconnection diagrams;

.7 use and care of those tools and test instruments necessary to carry out at-sea electronic maintenance at the level of replacement of a unit or module;

.8 basic manual soldering and desoldering techniques and their limitations;

.9 tracing and repair of faults to board/module level;

.10 recognition and correction of conditions contributing to the fault occurring;

.11 basic maintenance procedures, both preventive and corrective, for all the GMDSS communication equipment and radionavigation equipment; and

.12 methods of alleviating electrical and electromagnetic interference, such as bonding, shielding and bypassing.

Miscellaneous

28 Knowledge of, and/or training in:

.1 the English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea;

.2 world geography, especially the principal shipping routes, services of rescue coordination centres (RCCs) and related communication routes;

.3 survival at sea, the operation of lifeboats, rescue boats, liferafts, buoyant apparatus and their equipment, with special reference to radio life-saving appliances;

.4 fire prevention and fire fighting, with particular reference to the radio installation;

.5 preventive measures for the safety of ship and personnel in connection with hazards related to radio equipment, including electrical, radiation, chemical and mechanical hazards;

.6 first aid, including heart-respiration revival techniques; and

.7 coordinated universal time (UTC), global time zones and the international date line.

TRAINING RELATED TO THE GENERAL OPERATOR'S CERTIFICATE

General

29 The requirements of medical fitness, especially as to hearing, eyesight and speech, should be met by the candidate before training is commenced.

30 The training should be relevant to the provisions of the STCW-F Convention, the Radio Regulations and the 2012 Cape Town Agreement, with particular attention given to the provisions of chapter IX therein. In developing training requirements, account should be taken of at least the knowledge and training given in paragraphs 31 to 36 below.*

Theory

31 Knowledge of the general principles and basic factors necessary for safe and efficient use of all subsystems and equipment required in the GMDSS sufficient to support the practical training provisions given in paragraph 35 below.

32 Knowledge of the use, operation and service areas of GMDSS subsystems, including satellite system characteristics, navigational and meteorological warning systems and selection of appropriate communication circuits.

Regulations and documentation

33 Knowledge of:

.1 the 2012 Cape Town Agreement and the Radio Regulations, with particular emphasis on:

.1 distress, urgency and safety radiocommunications;

.2 avoiding harmful interference, particularly with distress and safety traffic; and

* The relevant IMO model course(s) may be of assistance in the preparation of courses.

.3 prevention of unauthorized transmissions;

.2 other documents relating to operational and communication procedures for distress, urgency, safety and general radiocommunications, including charges, navigational warnings, and weather broadcasts in the Maritime Mobile Service and the Maritime Mobile Satellite Service; and

.3 use of the International Code of Signals and the IMO Standard Marine Communication Phrases.

Watchkeeping and procedures

34 Training should be given in:

.1 communication procedures and discipline to prevent harmful interference in GMDSS subsystems;

.2 procedures for using propagation-prediction information to establish optimum frequencies for communications;

.3 radiocommunication watchkeeping relevant to all GMDSS subsystems, exchange of radiocommunication traffic, particularly concerning distress, urgency and safety procedures, and radio records;

.4 use of the international phonetic alphabet;

.5 monitoring a distress frequency while simultaneously monitoring or working on at least one other frequency;

.6 ship reporting systems and procedures;

.7 radiocommunication procedures of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual;

.8 radio medical systems and procedures; and

.9 causes of false distress alerts and means to avoid them.*

Practical

35 Practical training should be given in:

.1 correct and efficient operation of all GMDSS subsystems and equipment under normal propagation conditions and under typical interference conditions;

.2 safe operation of all the GMDSS communications equipment and ancillary devices, including safety precautions;

.3 accurate and adequate keyboard skills for the satisfactory exchange of communications; and

* See resolution MSC.514(105) – *Guidelines for the avoidance of false distress alerts*.

.4 operational techniques for:

.1 receiver and transmitter adjustment for the appropriate mode of operation, including digital selective calling and direct-printing telegraphy;

.2 antenna adjustment and realignment as appropriate;

.3 use of radio life-saving appliances; and

.4 use of emergency position-indicating radio beacons (EPIRBs).

Miscellaneous

36 Knowledge of, and/or training in:

.1 the English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea;

.2 world geography, especially the principal shipping routes, services of rescue coordination centres (RCCs) and related communication routes;

.3 survival at sea, the operation of lifeboats, rescue boats, liferafts, buoyant apparatus and their equipment, with special reference to radio life-saving appliances;

.4 fire prevention and fire fighting, with particular reference to the radio installation;

.5 preventive measures for the safety of ship and personnel in connection with hazards related to radio equipment, including electrical, radiation, chemical and mechanical hazards;

.6 first aid, including heart-respiration revival techniques; and

.7 coordinated universal time (UTC), global time zones and the international date line.

TRAINING RELATED TO THE RESTRICTED OPERATOR'S CERTIFICATE

General

37 The requirements of medical fitness, especially as to hearing, eyesight and speech, should be met by the candidate before training is commenced.

38 The training should be relevant to the provisions of the STCW-F Convention, the Radio Regulations and the 2012 Cape Town Agreement, with particular attention given to the provisions of chapter IX therein. In developing training guidance, account should be taken of at least the knowledge and training given in paragraphs 39 to 44 below.*

* The relevant IMO model course(s) may be of assistance in the preparation of courses.

Theory

39 Knowledge of the general principles and basic factors, including VHF range limitation and antenna height effect necessary for safe and efficient use of all subsystems and equipment required in GMDSS sea area A1, sufficient to support the training given in paragraph 43 below.

40 Knowledge of the use, operation and service areas of GMDSS sea area A1 sub-systems, e.g. navigational and meteorological warning systems and the appropriate communication circuits.

Regulations and documentation

41 Knowledge of:

.1 those parts of the 2012 Cape Town Agreement and the Radio Regulations relevant to sea area A1, with particular emphasis on:

.1 distress, urgency and safety radiocommunications;

.2 avoiding harmful interference, particularly with distress and safety traffic; and

.3 prevention of unauthorized transmissions;

.2 other documents relating to operational and communication procedures for distress, urgency, safety and general radiocommunications, including charges, navigational warnings and weather broadcasts in the Maritime Mobile Service in sea area A1; and

.3 use of the International Code of Signals and the IMO Standard Marine Communication Phrases.

Watchkeeping and procedures

42 Training should be given in:

.1 communication procedures and discipline to prevent harmful interference in GMDSS sub-systems used in sea area A1;

.2 VHF communication procedures for:

.1 radiocommunication watchkeeping, exchange of radiocommunication traffic, particularly concerning distress, urgency and safety procedures, and radio records;

.2 monitoring a distress frequency while simultaneously monitoring or working on at least one other frequency; and

.3 the digital selective calling system;

.3 use of the international phonetic alphabet;

.4 ship reporting systems and procedures;

.5 VHF radiocommunication procedures of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual;

.6 radio medical systems and procedures; and

.7 causes of false distress alerts and means to avoid them.*

Practical

43 Practical training should be given in:

.1 correct and efficient operation of the GMDSS sub-systems and equipment prescribed for ships operating in sea area A1 under normal propagation conditions and under typical interference conditions;

.2 safe operation of relevant GMDSS communication equipment and ancillary devices, including safety precautions; and

.3 operational techniques for use of:

.1 VHF, including channel, squelch, and mode adjustment, as appropriate;

.2 radio life-saving appliances;

.3 emergency position-indicating radio beacons (EPIRBs); and

.4 receivers capable of receiving maritime safety information and search and rescue related information (e.g. NAVTEX).

Miscellaneous

44 Knowledge of, and/or training in:

.1 the English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea;

.2 services of rescue coordination centres (RCCs) and related communication routes;

.3 survival at sea, the operation of lifeboats, rescue boats, liferafts, buoyant apparatus and their equipment, with special reference to radio life-saving appliances;

.4 fire prevention and fire fighting, with particular reference to the radio installation;

.5 preventive measures for the safety of ship and personnel in connection with hazards related to radio equipment, including electrical, radiation, chemical and mechanical hazards; and

.6 first aid, including heart-respiration revival techniques.

* See resolution MSC.514(105) – *Guidelines for the avoidance of false distress alerts*.

TRAINING RELATED TO MAINTENANCE OF GMDSS INSTALLATIONS ON BOARD SHIPS

General

45 The person designated to perform functions for at-sea electronic maintenance should either hold an appropriate certificate as specified by the Radio Regulations, as required, or have equivalent at-sea electronic maintenance qualifications, as may be approved by the Administration, taking into account the recommendations of the Organization on the training of such personnel.

46 The following guidance on equivalent electronic maintenance qualifications is provided for use by Administrations as appropriate.

47 Training as recommended below does not qualify any person to be an operator of GMDSS radio equipment who does not hold an appropriate Radio Operator's Certificate.

Maintenance training equivalent to the First-Class Radioelectronic Certificate

48 In determining training equivalent to the elements of the listed First-Class Radioelectronic Certificate:

.1 the theory content should cover at least the subjects given in paragraphs 3 to 10;

.2 the practical content should cover at least the subjects given in paragraph 13; and

.3 the miscellaneous knowledge included should cover at least the subjects given in paragraph 14.

Maintenance training equivalent to the Second-Class Radioelectronic Certificate

49 In determining training equivalent to the maintenance elements of the Second-Class Radioelectronic Certificate:

.1 the theory content should cover at least the subjects given in paragraphs 17 to 24;

.2 the practical content should cover at least the subjects given in paragraph 27; and

.3 the miscellaneous knowledge included should cover at least the subjects given in paragraph 28.

Section B-II/7

(No provisions)

Section B-II/8

(No provisions)

Section B-II/a*
Guidance on training of deckhand fishing working on fishing vessels of 24 metres in length and over

Definition

1 *Deckhand fishing* means a member of the vessel's crew other than the skipper or an officer.

Safety familiarization for deckhand fishing

2 Before being assigned to shipboard duties, deckhand fishing should be familiar with the following:

.1 marine terms and orders commonly used in fishing vessels;

.2 the dangers associated with fishing operations such as shooting the fishing gear into the water, hauling the fishing gear and landing the catch on board; and

.3 construction, application and purpose of each piece of deck equipment associated with a particular type of fishing gear, including, but not limited to:

.1 trawl gallows;

.2 gantries;

.3 bollards;

.4 power blocks;

.5 pursing blocks;

.6 winches and booms;

.7 derricks;

.8 net drums and side rollers; and

.9 line and trap haulers; and

.4 the dangers associated with the movement of equipment not fixed.

Training for deckhand fishing

3 Deckhand fishing should, before being assigned to any shipboard duties, receive appropriate training cover competences given below.

* There are no corresponding regulations in the Convention or sections in part A of the Code for sections B-II/a and B-II/b.

COMPETENCES

Contribute to safe operation

4 Understanding of dangers caused by the vessel's motions and accelerations.

5 Understanding of dangers caused by slippery surfaces on board.

6 Understanding of good onboard conduct, particularly to minimize fire hazards.

7 Knowledge of the use of personal protection equipment.

Contribute to maintain stability and seaworthiness

8 Understanding of the watertight and weathertight integrity of common types of fishing vessels.

9 Understanding of the operation of closing devices for doors and other openings relevant to the watertight and weathertight integrity of the fishing vessel.

10 Knowledge of stowage of the catch, fishing gear.

11 Knowledge of the function of freeing ports.

Contribute to berthing, anchoring, catch handling and other mooring operations

12 Knowledge of the handling and maintenance of deck appliances and equipment such as winches, derricks, booms, stoppers, chains, wire rope and ropes.

13 Knowledge and safe working practice of making splices and eye splices in wire ropes and ropes.

14 General knowledge of mooring operations and the handling and safe working practice of mooring ropes, including springs, bow, stern and breast ropes.

15 Knowledge of helm orders, commands for mooring, anchoring and towing.

16 Knowledge of possible hazards and risks on mooring, anchoring and towing.

Section B-II/b[*]

Guidance on training of advanced deckhand fishing working on fishing vessels of 24 metres in length and over

[*] There are no corresponding regulations in the Convention or sections in part A of the Code for sections B-II/a and B-II/b.

Definition

1 *Advanced deckhand fishing* means a qualified deckhand participating in the safe operation of the fishing vessel, preparation for and carrying out fishing operations, handling, safe stowage and, where appropriate, processing the catch and repairing the fishing gear.

Training for advanced deckhand fishing

2 Advanced deckhand fishing should, before being assigned to any shipboard duties, receive appropriate training cover competences given below.

COMPETENCES

Function: Navigation at the support level

Contribute to enhance communication for safety navigation

3 Knowledge of common nautical terms which apply to the work and navigation of a fishing vessel.

Contribute to hazard identification

4 Working knowledge of margins of safety and prepare the fishing vessel to go to sea, including:

.1 the procedure for keeping a proper lookout in order to maintain a margin of safety between own vessel and other traffic;

.2 the safe distances between boats and land; and

.3 the risk of collision.

Contribute to safe navigation using guidance equipment

5 Knowledge about the principles of a visual lookout.

6 Knowledge of GPS operations that describe the dangers of operating GPS equipment without proper training.

Contribute to safe anchor operation

7 Knowledge of anchors, including weighing and dragging.

8 Knowledge of common nautical terms which apply to anchoring.

Contribute to safe mooring operation

9 Knowledge of mooring operation and equipment including mooring ropes.

Contribute to safe towing operation

10 Knowledge of towing operation.

Contribute to safe navigational watch

11 Ability to steer the fishing vessel on a compass course and maintain a course satisfactory.

12 Understanding the method of handing over the wheel and lookout duty when vessel is under way in order to ensure its continuity.

13 Knowledge of watchkeeping, including:

.1 engine checks;

.2 safe watchkeeping practices; and

.3 International Collision Prevention Regulations.

14 Knowledge of use of magnetic and gyro-compass.

Function: Catch handling and stowage at the support level

Contribute to safe catch handling and stowage

15 Knowledge of the effects upon a fishing vessel of catch handling and stowage factors.

16 Knowledge of the related principles and guidelines for responsible fisheries.

17 Understanding of responsible harvesting, including:

.1 effects of discards and by-catch;

.2 causes of habitat damage through fishing operations; and

.3 proper disposal of unserviceable fishing gear.

18 Understanding of responsible fishing gear selectivity including its importance and factors that affects size and species selectivity.

19 Knowledge of the relevant national Administrations and their fisheries responsibilities.

Function: Controlling the operation of the vessel and care for persons on board at the support level

Apply occupational health and safety precautions

20 Understanding parts of the fishing vessel, including:

.1 functions of fishing vessel equipment and gear;

.2 main components of fishing gear including trawl net, purse seine net, set net, cast net, long line, dredge and fish pot; and

.3 fish aggregating devices (FADs) and main types of fishing gear, including: surrounding nets (e.g. purse seine nets), seine nets, trawls, dredges, lift nets,

falling gear (e.g. cast nets), gillnets and entangling nets, traps (e.g. pots), hooks and lines (e.g. longlines).

Ability to make and use knots and splices

21 Ability to tie and use various types of knots.

22 Ability to make splices and whipping.

23 Ability to apply rope and chain stoppers depending on the situation.

Ability to use purchases

24 Ability to use various types of purchases for rigging.

25 Understanding of the purpose of tackles.

Function: Maintenance and repair at the support level

Contribute to safe operation and maintenance of the deck equipment

26 Knowledge and understanding of the construction, application and purpose of deck equipment on fishing vessels.

27 Understanding of the procedures for safe operation and maintenance of deck equipment.

28 Knowledge of fibre ropes, wire ropes and chains for use and maintenance, including precautions to take.

29 Understanding watertight and weather tight integrity of common types of fishing vessels.

Chapter III
Guidance regarding basic training for all fishing vessel personnel

Section B-III/1
Guidance regarding basic training and onboard safety familiarization for all fishing vessel personnel

Personal survival techniques

1 The training in personal survival techniques required by section A-III/1 should include the following theoretical and practical knowledge:

.1 principles concerning survival including:

.1 actions to be taken at rescue operations by a helicopter; and

.2 getting the survival craft quickly away of the fishing vessel and fishing gear.

Fire prevention and fire fighting

2 The training in fire prevention and fire fighting required by section A-III/1 should include the following theoretical and practical knowledge:

.1 re-entry procedure; and

.2 fire prevention measures such as:

.1 prohibition of smoking;

.2 location of heat sources to prevent contact with combustible materials;

.3 control of use of blowlamps, cutting or welding equipment;

.4 risk assessment and purchase control of articles and substances in order to avoid the introduction of fire hazards, where possible;

.5 risk assessment and control of the use of articles and substances that pose fire hazards in order to avoid the introduction of fire risks;

.6 adequate cleanliness of working areas; and

.7 adequate supervision of cooking facilities.

Elementary first aid

3 The training in elementary first aid required by section A-III/1 should include the following theoretical and practical knowledge:

.1 use of telemedical assistance service;* and

.2 means to obtain medical advice by radio.

Personal safety and social responsibilities

4 The training in personal safety and social responsibilities required by section A-III/1 should include the following theoretical and practical knowledge:

.1 consequences of panic;

.2 immediate and correct action to assist a craft in distress;

.3 risk assessment by:

.1 identification of hazards;

.2 identification of associated risk for health and safety;

.3 decision on appropriate control measures;

.4 prediction of potential outcomes; and

.5 determination of level of risk;

.4 risk mitigation methods, including:

.1 elimination;

.2 guarding of hazards and persons;

.3 procedure and training;

.4 personal protective equipment (PPE);

.5 signage; and

.6 maintenance;

.5 near misses, incidents and accidents, including:

.1 identification of root causes;

.2 recognition of contributing factors;

.3 evaluation of relevant outcomes;

* See MSC/Circ.960 on *Medical assistance at sea and importance of the role of telemedical assistance services*

.4 determination of the difference between a near miss, an incident and an accident;

.5 prevention of further development of near misses, incidents and accidents including the safe isolation of equipment, machinery and systems and the future occurrence of near misses, incidents and accidents; and

.6 reporting of a near miss, incident or accident according to legislative requirements, internal safety procedures and confidentiality requirements; and

.6 communication phrases and handling of signals during fishing operations such as:

.1 shooting and hauling of the fishing gear;

.2 transferring the catch;

.3 working with deck and fishing gear; and

.4 lifting.

5 The training in personal safety and social responsibilities required by section A-III/1 should include awareness training in the following elements:

.1 methods for safety management appropriate to fishing vessels, including:

.1 policy statement;

.2 crew introduction;

.3 onboard training;

.4 working procedures;

.5 maintenance schedules;

.6 fishing vessel design;

.7 checklists;

.8 health surveillance; and

.9 agreed common language;

.2 participation in continued monitoring of improvement of safety by:

.1 understanding the reasons for revising existing safety methods including preventive and corrective actions;

.2 understanding of guidance to support revision processes including existing methods, legislation, and accident, incident and near miss reports;

.3 evaluating at least the following options necessary for the successful implementation of changes:

.1 feasibility of proposed changes;

.2 effectiveness of the implementation of changes; and

.3 current behaviour/culture on board;

.3 recognition of a near miss, an incident and an accident;

.4 risks on board fishing vessels during fishing operations such as:

.1 shooting and hauling of the fishing gear; and

.2 transferring the catch;

.5 risks on board fishing vessels with regard to:

.1 falls;

.2 crushing;

.3 fluctuation and loose load; and

.4 cable breaks; and

.6 risks, hazards and safe working procedures for operational safety during:

.1 mooring;

.2 unmooring;

.3 working at height;

.4 hot work; and

.5 working with hazardous substances.

Section B-III/a*

Guidance on basic sustainable fisheries training for all fishing vessel personnel

1 Fishing vessel personnel should, before being assigned to any shipboard duties, receive appropriate approved basic sustainable fisheries training in:

.1 sustainable fisheries;

.2 prevention of pollution of the marine environment; and

.3 efficient use of energy and reduction of air pollution.

Above trainings should cover competences given below.

* There is no corresponding regulation in the Convention or sections in part A of the Code for section B--II/a.

Competences

Define sustainable fisheries

2 Understanding that sustainable development requires a balance of social responsibility (People), care for the environment (Planet) and economic prosperity (Profit).

3 Be able to apply the principles of sustainable development to the fishing industry.

Recognize the ocean as a diverse and valuable environment

4 Understanding the importance of healthy oceans for the fishing industry.

Prevent plastic pollution to the (marine) environment

5 Be able to properly handle garbage, as defined in MARPOL Annex V, on board ships and the correct disposal in ports.

Contribute to the efficient use of energy and reduction of air pollution

6 Knowledge of the impacts of air pollution to the environment.

7 Understanding the urgency of climate change and the way the maritime sector contributes to the problem.

8 Be able to contribute to the efficient use of energy and the reduction of air pollution.

Ensure a positive reputation of the fishing industry

9 Understanding the importance of interaction with society, transparency and accountability to ensure a good reputation and a "licence to operate".

Chapter IV
Guidance regarding watchkeeping

Section B-IV/1

(No provisions)

Section B-IV/2

(No provisions)

***

ANNEX 3[1]
(English only)

DRAFT MSC CIRCULAR ON

GUIDELINES ON THE MEDICAL EXAMINATION OF FISHING VESSEL PERSONNEL

1 The Maritime Safety Committee, at its [108th] session ([…]), approved the *Guidelines on the medical examination of fishing vessel personnel*, developed by the Organization jointly with the International Labour Organization, as set out in the annex.

2 The Guidelines aim to assist Parties in ensuring that the standards of medical fitness for fishing vessel personnel in the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F), 1995, and the [Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) Code] are effectively implemented.

3 Member Governments and Parties to the STCW-F Convention are invited to take full account of the Guidelines in the annex when implementing the standards of medical fitness for fishing vessel personnel in the STCW-F Convention and Code.

4 This circular takes effect from [DATE].

[1] Tracked changes (i.e. "strikeout" and "grey shading") are used to indicate deletions and new insertions applied to the base document (i.e. STCW.7/Circ.19/Rev.1).

ANNEX

DRAFT GUIDELINES ON THE MEDICAL EXAMINATION OF FISHING VESSEL PERSONNEL

[Preface

The International Labour Organization's Work in Fishing Convention 2007 and the International Maritime Organization's Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) require that every fisher holding a certificate issued under the provisions of these Conventions, who is serving at sea, shall hold a valid medical certificate issued in accordance with the provisions of the Conventions.

Guidelines on the Medical Examinations of Seafarers, produced by the International Labour Organization (ILO) and the International Maritime Organization (IMO), have been in place for many years. These could provide an appropriate basis for establishing medical criteria for fishers, given that the medical criteria outlined in these Guidelines are already being applied to a large number of fishing personnel.

The structure and much of the text of the existing ILO/IMO "Guidelines on the medical examinations of Seafarers" has been used in the production of these Guidelines for Fishers. The dissemination and implementation of these Guidelines should contribute towards the harmonization of standards for the medical examinations of fishers and improve the quality and effectiveness of the health care provided for fishers.

Further, according to the Work in Fishing Convention, 2007, the competent authorities are obliged to monitor the occupational health risks of all fishers. The objective of this Convention is to ensure that fishers have decent conditions of work on board fishing vessels with regard to minimum requirements for work on board, conditions of service, accommodation and food, occupational safety and health protection, medical care and social security. These Guidelines therefore include information concerning the occupational risks faced by fishers within their profession.

They also suggest additional requirements in the competences of the medical practitioners (appendix I) and prompt the competent authorities to establish a continuous systematic monitoring programme of the fishers' occupational health risks and their health status that cannot be covered by the two-yearly health examinations (appendix J). Medical practitioners performing such examinations should have a clear understanding of the unique aspects of fishing, as their professional judgement is often critical to the health and safety of fishers.]

Part 1. Introduction

I. Purpose and scope of the Guidelines

~~Seafarers~~ Fishing vessel personnel are required to undergo medical examinations to reduce risks to other crew members and for the safe operation of the ~~ship~~ fishing vessel, as well as to safeguard their personal health and safety.

~~MLC, 2006~~ The Work in Fishing Convention, 2007 (No.188) and the STCW-F Convention, ~~1978~~ 1995, as amended, require ~~a seafarer~~ fishing vessel personnel to hold a medical certificate, detail the information to be recorded and indicate certain specific aspects of fitness that need to be assessed.

These Guidelines apply to ~~seafarer~~ fishing vessel personnel in accordance with the requirements of ~~MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188) and the STCW-F Convention, ~~1978~~ 1995, as amended. ~~They revise and replace the *Guidelines for Conducting Pre-sea and Periodic Medical Fitness Examinations for Seafarers*, published by ILO and WHO in 1997.~~

When implementing and utilizing these Guidelines, it is essential to ensure that:

(i) the fundamental rights, protections, principles, and employment and social rights outlined in ~~articles III and IV the preamble of MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188) are respected;

(ii) from the point of view of safety of life and property at sea and the protection of the marine environment, ~~seafarers on board ships~~ fishing vessel personnel on board fishing vessel are qualified and fit for their duties; and

(iii) medical certificates genuinely reflect ~~seafarers'~~ fishing vessel personnel's states of health, in light of the duties they are to perform, the competent authority shall, after consultation with the ~~shipowners'~~ fishing vessel owners' and ~~seafarers'~~ fishing vessel personnel's organizations concerned, in giving due consideration to applicable international guidelines ~~referred to in Guideline B.1.2 of MLC, 2006~~, prescribe the nature of the medical examination and certificate, as outlined in ~~Standard A.1.2.2~~ Article 11 of ~~MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188).

These Guidelines are intended to provide ~~maritime~~ relevant administrations with an internationally recognized set of criteria for use by competent authorities either directly or as the basis for framing national medical examination standards that will be compatible with international requirements. Valid and consistent guidelines should assist medical practitioners, ~~shipowners~~ fishing vessel owners, ~~seafarers'~~ fishing vessel personnel's representatives, ~~seafarers~~ fishing vessel personnel and other relevant persons with the conduct of medical fitness examinations of serving ~~seafarers~~ fishing vessel personnel and ~~seafarer~~ fishing vessel personnel candidates. Their purpose is to help administrations establish criteria that will lead to equitable decisions about who can safely and effectively perform their routine and emergency duties at sea, provided these are compatible with their individual health-related capabilities.

These Guidelines have been developed in order to reduce the differences in the application of medical requirements and examination procedures and to ensure that the medical certificates which are issued to ~~seafarers~~ fishing vessel personnel are a valid indicator of their medical fitness for the duties they will perform. Ultimately, the aim of the Guidelines is to contribute to health and safety at sea.

A medical certificate issued in accordance with the requirements of the STCW-F Convention, ~~1978~~ 1995, as amended, also meets the requirements of ~~MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188).

II. Contents and use of the Guidelines

The Guidelines are arranged in the following manner:

Part 1 summarizes the purpose and scope of the Guidelines, their contents and the background to their preparation, and identifies the main features of a framework for medical examinations and the issue of a medical certificate to a ~~seafarer~~ fishing vessel personnel.

Part 2 provides information relevant to competent authorities to assist with the framing of national regulations that will be compatible with relevant international instruments on the health and fitness of ~~seafarers~~ fishing vessel personnel.

Part 3 provides information relevant to those who are carrying out ~~seafarer~~ fishing vessel personnel medical assessments. This may be used directly or may form the basis for national guidelines for medical practitioners.

Part 4 includes a series of appendices on standards for different types of impairing conditions, recordkeeping and the contents of the medical certificate. The series of appendices includes a guidance on how to establish a programme to monitor the health and occupational risk factors relevant to fishing vessel personnel, the implementation of a training programme for medical practitioners, standards for different types of impairing conditions, record-keeping and the contents of the medical certificate.

Some parts of the Guidelines are more appropriate for competent authorities than for individual medical practitioners, and vice versa. Nevertheless, it is suggested that the whole of the Guidelines be taken into consideration to ensure that all topics and information are taken into account. The Guidelines are designed as a tool to enhance medical examinations and make them more consistent; they cannot and are not intended to replace the professional skill and judgement of recognized medical practitioners.

III. Background to the preparation of the Guidelines

In 1997 the ILO and WHO published the first international guidelines concerning the medical examinations of seafarers. This has been an invaluable document for maritime authorities, the social partners in the maritime industry and the medical practitioners who conduct medical examinations of seafarers. These Guidelines have been revised several times. However, until the ILO Work in Fishing Convention, 2007 (C118) was published and ratified in the countries there were no guidelines for the medical examination and occupational health care for fishing vessel personnel.

~~In 1997, ILO and WHO published the first international guidelines concerning the medical examinations of seafarers. This has been an invaluable document for maritime authorities, the social partners in the shipping industry and the medical practitioners who conduct medical examinations of seafarers. Since 1997 there have been important changes in the diagnosis, treatment and prognosis of many of the medical conditions that need to be taken into account. The 1997 Guidelines provided detailed information on the conduct of seafarer medical examinations but they did not, with the exception of vision, assist by proposing the appropriate criteria to be used when deciding whether a medical certificate could be issued for other conditions.~~

~~The need for revision was recognized by a number of maritime authorities, by the social partners and by doctors undertaking seafarer medical examinations. This led to a resolution being adopted by the ninety-fourth (Maritime) session of the International Labour Conference in 2006 recommending that the need for revision should be considered.~~ IMO, in its comprehensive review of the ~~1978~~ 1995 STCW-F Convention ~~and Code~~, ~~also~~ recognized the need to include medical fitness criteria that were relevant to ~~maritime safety~~ the safe operation of fishing vessels, and concluded that the ~~present~~ Guidelines required ~~revision~~ development.

ILO and IMO subsequently agreed to create a joint working group to develop revised Guidelines.

IV. ~~Seafarer~~ Fishing vessel personnel medical fitness examinations

The aim of the medical examination is to ensure that the ~~seafarer~~ fishing vessel personnel being examined is medically fit to perform his or her routine and emergency duties at sea and is not suffering from any medical condition likely to be aggravated by service at sea, to render him or her unfit for service or to endanger the health of other persons on board and navigation safety. Wherever possible, any conditions found should be treated prior to returning to work at sea so that the full range of routine and emergency duties can be undertaken. If this is not possible, the abilities of the ~~seafarer~~ fishing vessel personnel should be assessed in relation to his or her routine and emergency duties and recommendations made on what the ~~seafarer~~ fishing vessel personnel is able to do and whether any reasonable adjustments could enable him or her to work effectively. In some cases, problems will be identified that are incompatible with duties at sea and cannot be remedied. Appendices A to E provide information on the disabilities and medical conditions which are not likely to prevent all routine and emergency duties being performed, those which require adaptation or limitation to routine and emergency duties, and those which result in either short-term or ~~longer~~ long-term unfitness to work at sea as fishing vessel personnel. Medical examination findings are used to decide whether to issue a medical certificate to the fishing vessel personnel.

Medical examination findings are used to decide whether to issue a medical certificate to ~~a seafarer~~ fishing vessel personnel. Consistent decision-making needs to be based on the application of criteria for fitness that are applied in a uniform way, both nationally and, because of the global nature of ~~seafaring and marine transport,~~ fishing operations, internationally. These Guidelines provide the basis for establishing national arrangements which are compliant with the relevant international conventions.

The medical certificate is neither a certificate of general health nor a certification of the absence of illness. It is a confirmation that the ~~seafarer~~ fishing vessel personnel is expected to be able to meet the minimum requirements for performing the routine and emergency duties specific to their post at sea safely and effectively during the period of validity of the medical certificate. Hence, the routine and emergency duties must be known to the examining medical practitioner, who will have to establish, using clinical skills, whether the ~~seafarer~~ fishing vessel personnel ~~meets~~ meet the standards for all anticipated routine and emergency duties specific to their individual post and whether any routine or emergency duties need to be modified to enable them to be performed safely and effectively.

The ability to safely and effectively perform routine and emergency duties depends on both a person's current degree of fitness and on the likelihood that they will develop an impairing condition during the validity period of the medical certificate. Criteria for performing routine and emergency duties safely will be higher where the person has critical safety duties, either as part of their routine or in emergencies. Other safety consequences also need to be considered, for instance whether ~~a seafarer~~ fishing vessel personnel is suffering from any medical condition

likely to be aggravated by service at sea, to render the ~~seafarer~~ fishing vessel personnel unfit for such service, or to endanger the health and safety of other persons on board.

The examining medical practitioner should base the decision to issue a medical certificate on whether criteria for minimum performance requirements, as listed in the appendices to this document, are met in the following areas:

(i) vision (appendix A), hearing (appendix B) and physical capabilities (appendix C);

(ii) impairment from the use of medication (appendix D); and

(iii) presence or recent history of an illness or condition (appendix E).

The consequences of impairment or illness will depend on the routine and emergency duties and, in some cases, on the distance from shore-based medical facilities.

Thus, the examining medical practitioner needs the skills to assess individual fitness in all these areas and the knowledge to relate their findings to the requirements of the individual's routine and emergency duties at sea whenever any limitations in fitness are identified.

Competent authorities may, without prejudice to the safety of the ~~seafarers~~ fishing vessel personnel or the ~~ship~~ fishing vessel, consider the relevant capabilities, conditions and on board duties of those assessed. Competent authorities may differentiate between those persons seeking to start a career at sea in the industry and those ~~seafarers~~ fishing vessel personnel already serving at sea in the industry ~~and between different functions on board, bearing in mind the different duties of seafarers~~ fishing vessel personnel.

Part 2. Guidance for competent authorities

V. Relevant standards of and guidance from the International Labour Organization, the International Maritime Organization and the World Health Organization

The Guidelines have taken into account the appropriate conventions, recommendations and other instruments of ILO, IMO and WHO. Competent authorities should ensure that medical practitioners are provided with information on other relevant standards which may have been formulated after the date of adoption of these Guidelines.

ILO instruments concerning the medical examination and health of ~~seafarers~~ fishing vessel personnel

Several earlier conventions on ~~seafarer~~ fishing vessel personnel working conditions have been consolidated in ~~MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188), including requirements for the issue of medical certificates (~~regulation 1.2 and associated standards and guidelines~~ articles 10 to 12) and for medical care on board ~~ship~~ fishing vessel and ashore (~~regulation 4.1 and associated standards and guidelines~~ articles 29 to 30).

An important objective of ~~MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188) is to safeguard the health and welfare of ~~seafarers~~ fishing vessel personnel. ~~MLC, 2006~~ the Work in Fishing Convention, 2007 (No.188) applies to ~~all seafarers~~ all fishing vessel personnel and all fishing vessels engaged in commercial fishing operations except where expressly provided otherwise in the Convention (article II, paragraph ~~2~~ 1).

IMO instruments concerning medical examination requirements for ~~seafarers~~ fishing vessel personnel

The IMO STCW-F Convention, ~~1978~~ 1995, as amended, includes requirements for medical examinations and the issue of medical certificates.

Earlier versions of the STCW-F Convention included ~~criteria for vision and physical capability~~ requirements for medical fitness, particularly regarding eyesight and hearing but ~~not for other aspects~~ no specified criteria for any aspects of medical assessment. STCW-F include requirements for competent authorities to ensure that all those responsible for assessing the medical fitness of fishing vessel personnel are medical practitioners recognized by the Party to the STCW-F convention for the purpose of fishing vessel personnel's medical examination in accordance with the provisions of section A-I/12 of the STCW-F Code.

~~Every seafarer~~ Fishing vessel personnel holding a certificate issued under the provisions of the STCW-F Convention who ~~is~~ are serving at sea must also hold a valid medical certificate issued in accordance with the provisions of the STCW-F Convention regulation ~~I/9~~ I/12 and of section ~~A-I/9~~ A-I/12 of the STCW-F Code.

WHO measures concerning ~~seafarers'~~ fishing vessel personnel's health and medical services and medical examinations of ~~seafarers~~ fishing vessel personnel

~~The WHO Executive Board and the World Health Assembly have adopted resolutions on the health of seafarers (WHA14.51, EB29.R10, WHA15.21, EB37.R25 and EB43.R23), requesting to assist nations to improve the health of seafarers, ameliorate the medical records of seafarers and make available to seafarers services in each port where the necessary specialized medical care can be provided. Furthermore, I In May 1996, a resolution of the forty-ninth World Health Assembly (WHA49.12) on the WHO Global Strategy for Occupational Health for All and in May 2007, a resolution of the sixtieth World Health Assembly (WHA60.26), the Global Plan of Action on Workers' Health urges countries to give special attention to full occupational health services for the working population, including groups at high risk, such as seafarers fishing vessel personnel.~~ In addition, the following guidelines approved by the WHO Guidelines Review Committee since 2007 include references to medical examinations: the "Guidelines for treatment of tuberculosis" (fourth edition); the "WHO policy on TB infection control in health-care facilities, congregate settings and households"; the "Guidelines for using HIV testing technologies in surveillance: selection, evaluation and implementation" (2009 update); and the "mhGAP Intervention Guide for mental, neurological and substance use disorders in non-specialized health settings".

VI. Purpose and contents of the medical certificate

~~MLC, 2006 (Standard A1.2)~~ The Work in Fishing Convention, 2007 (No.188) (Article 12, ~~paragraph 2~~ paragraph 1) and the STCW-F Convention, ~~1978~~ 1995, as amended, ~~(section A-I/9, paragraph 7)~~ (section A-I/12, paragraph 7) specify the information that should be included as a minimum on the medical certificate. The detailed content of these Guidelines aligns with these requirements and the other more detailed provisions of the relevant international conventions, which should be consulted when developing national procedures. The aim of the Guidelines is, wherever possible, to avoid subjectivity and to give objective criteria for decision-making. The content of the medical certificate for fishing vessel personnel will be identical to that of the seafarers, except that the medical practitioners will give more attention to the specific occupational health risks for fishing vessel personnel and offer guidance on prevention.

The period of validity of the medical certificate is indicated in ~~MLC, 2006, (Standard A1.2, paragraph 7)~~ the Work in Fishing Convention, 2007 (No.188) (Article 12, paragraph 2) and the STCW-F Convention, ~~1978~~ 1995, as amended ~~(regulation I/9)~~ (regulation I/12). Both Conventions specify that the medical certificate will remain in force for a maximum period of two years from the date on which it is granted, unless the ~~seafarer~~ fishing vessel personnel is under the age of 18, in which case the maximum period of validity is one year. Medical certificates issued in accordance with the STCW-F Convention, ~~1978~~ 1995, as amended, which expire during the course of a voyage, will continue to be in force until the next port of call where the ~~seafarer~~ fishing vessel personnel can obtain a medical certificate from a medical practitioner recognized by the Party, provided that the period does not exceed three months. In urgent cases, the administration may permit ~~a seafarer~~ fishing vessel personnel to work without a valid medical certificate until the next port of call where a medical practitioner recognized by the Party is available, provided that the period of such permission does not exceed three months and the ~~seafarer~~ fishing vessel personnel concerned is in possession of an expired medical certificate of recent date. In so far as a medical certificate relates to colour vision, it will remain in force for a period not exceeding six years from the date it is granted.

Two years is the period over which fitness should normally be assessed. However, if the examining medical practitioner considers that more frequent surveillance of a condition that may affect health or performance at sea is indicated, a medical certificate of shorter duration should be issued and arrangements made for reassessment. The examining medical practitioner should only issue a medical certificate with a duration of less than two years if they can justify their reasons in a particular case.

The medical practitioner should indicate on the medical certificate whether the person is fit for all duties worldwide within their department (deck/engine/catering/other), as indicated on their medical certificate; whether they can undertake all routine and emergency duties but are only able to work in specified waters, or whether adaptation of some routine and emergency duties is required. Safety-critical visual capabilities such as lookout duties should be specifically indicated.

If the ~~seafarer~~ fishing vessel personnel cannot perform routine and emergency duties safely and effectively and adaptation of duties is not possible, the ~~seafarer~~ fishing vessel personnel should be notified that they are "not fit for duty". If adaptation is possible then they should be notified that they are "fit for duty with limitations". The notification must be accompanied by an explanation of the ~~seafarer's~~ fishing vessel personnel's right to appeal as provided in section IX.

Where illnesses and injuries may impair the ability of ~~a seafarer~~ fishing vessel personnel with a valid medical certificate to perform routine and emergency duties safely, their current fitness may need to be assessed. Such examinations may be considered in various circumstances such as more than 30 days incapacitation, disembarkation for medical reasons, hospital admission or requirement for new medication. Their current medical certificate may be revised accordingly.

Before training commences, it is advantageous for any person who intends to subsequently work ~~at sea~~ as fishing vessel personnel to be medically examined to confirm that they meet the required medical fitness standards.

VII. Right to privacy

All persons involved in the conduct of medical examinations, including those who come into contact with medical examination forms, laboratory results and other medical information, should ensure the right to privacy of the examinee. Medical examination reports should be marked as confidential and so treated, and all medical data collected from ~~a seafarer~~ fishing

vessel personnel should be protected. Medical records should only be used for determining the fitness of the ~~seafarer~~ fishing vessel personnel for work and for enhancing health care; they should not be disclosed to others without prior written informed consent from the ~~seafarer~~ fishing vessel personnel. Personal medical information should not be included on medical certificates or other documents made available to others following the medical examination. The ~~seafarer~~ fishing vessel personnel should have the right of access to and receipt of a copy of his/her personal medical data.

VIII. Recognition of medical practitioners

The competent authority should maintain a list of recognized medical practitioners to conduct medical examinations of ~~seafarers~~ fishing vessel personnel and issue medical certificates. The competent authority should consider the need for medical practitioners to be personally interviewed and for clinic facilities to be inspected before authorization to conduct medical examinations of ~~seafarers~~ fishing vessel personnel is given. A list of medical practitioners recognized by the competent authority should be made available to competent authorities in other countries, companies and ~~seafarers'~~ fishing vessel personnel's organizations ~~on request~~. The competent authority should provide means to verify the authenticity of the medical certificates issued. Recognized medical practitioners by the Administration for examining the medical fitness of seafarers in accordance with 1978 STCW Convention, as amended, can also be authorized for the medical examination of fishing vessel personnel without further recognition taking into account these Guidelines.

The competent authority, when developing guidance for the conduct of medical fitness examinations, should take into consideration that general medical practitioners ~~may~~ need ~~more~~ detailed guidance than medical practitioners with competence in ~~maritime health~~ the health of fishing vessel personnel and the industry.

In addition, the provision of an expert helpline can aid decision-making on novel or complex problems and can be a source of information that may be used to improve the quality of assessments.

The names of any medical practitioners whose recognition has been withdrawn during the previous 24 months should continue to be included, with a note to the effect that they are no longer recognized by the competent authority to conduct ~~seafarers'~~ fishing vessel personnel's medical examinations.

A medical practitioner so recognized by the competent authority:

(i) should be a qualified medical practitioner currently accredited by the medical registration authority for the place where they are working;

(ii) should be experienced in general and occupational medicine ~~or maritime occupational medicine~~;

(iii) should have knowledge of the living and working conditions on board ~~ships~~ fishing vessels and the job demands on ~~seafarers~~ fishing vessel personnel in so far as they relate to the effects of health problems on fitness for work, gained wherever possible through special instruction and through knowledge based on personal experience of ~~seafaring~~ fishing;

(iv) should have facilities for the conduct of examinations that are conveniently situated for access by ~~seafarers~~ fishing vessel personnel and enable all the requirements of the medical fitness examination to be met and conducted with respect for confidentiality, modesty and cleanliness;

(v) should be provided with written guidance on the procedures for the conduct of medical examinations of ~~seafarers~~ fishing vessel personnel, including information on appeals procedures for persons denied a medical certificate as a result of an examination;

(vi) should understand their ethical position as examining medical practitioners acting on behalf of the competent authority, ensuring that any conflicts with this are recognized and resolved;

(vii) should refer any medical problems found, when appropriate, for further investigation and treatment, whether or not ~~a seafarer~~ fishing vessel personnel is issued with a medical certificate; and

(viii) should enjoy professional independence from ~~shipowners~~ fishing vessel owners, ~~seafarers~~ fishing vessel personnel and their representatives in exercising their medical judgement in terms of the medical examination procedures. Those employed by, or contracted to, a ~~maritime fisheries employer~~ a fishing vessel owner or crewing agency should have terms of engagement which ensure that an assessment is based on statutory standards.

It is further recommended that such medical practitioners:

(i) should be provided with information on the standard of competence for ~~seafarers~~ fishing vessel personnel designated to take charge of medical care on board ~~ships~~ fishing vessels in relevant national laws and regulations; and

(ii) should be familiar with the latest edition of the *International Medical Guide for Ships*, or an equivalent medical guide for use on ~~ships~~ fishing vessels.

~~In the case of a certificate solely concerned with a seafarer's fishing vessel personnel's sight and/or hearing, the competent authority may authorize a person other than a recognized medical practitioner to test the seafarer fishing vessel personnel and issue such a certificate. In such cases, the qualifications for such authorized persons should be clearly established by the competent authority and such persons should receive information on the appeals procedure described in section IX of these Guidelines.~~

The competent authority should have in place quality assurance procedures to ensure that medical examinations meet the required standards. These should include publicized arrangements for:

(i) the investigation of complaints from ~~shipowners~~ fishing vessel owners, ~~seafarers~~ fishing vessel personnel and their representatives concerning the medical examination procedures and the authorized medical practitioners;

(ii) collection and analysis of anonymized information from medical practitioners about the numbers of examinations undertaken and their outcomes; and

(iii) the introduction, where practical, of a nationally agreed review and audit programme for examining medical practitioners' practices and recordkeeping undertaken by, or on behalf of, the competent authority. Alternatively, they could endorse appropriate external clinical accreditation arrangements for those undertaking ~~seafarers'~~ fishing vessel personnel's medical examinations, the results of which would be made available to the authority.

Recognized medical practitioners who are found by the competent authority as a result of an appeal, complaint, audit procedure or other reasons to no longer meet the requirements for recognition should have their authorization to conduct ~~seafarers'~~ fishing vessel personnel's medical examinations withdrawn.

IX. Appeals procedures

~~MLC, 2006 (Standard A1.2, paragraph 5) provides that seafarers who have been refused a medical certificate or have had a limitation imposed on their ability to work must be given the opportunity to have a further examination by another independent recognized medical practitioner or by an independent medical referee. The STCW Code, in section A-I/9, paragraph 6, requires Parties to the Convention to establish processes and procedures to enable seafarers fishing vessel personnel who do not meet fitness standards or who have had a limitation imposed on them to have their case reviewed in line with that Party's provisions for appeal.~~ As required by both the STCW-F Code, in section A-I/12, and Work in Fishing Convention, 2007 (No.188) (Article 11, (e)) fishing vessel personnel who have been refused a medical certificate or have had a limitation imposed on their ability to work must be given the opportunity to have a further examination by another independent recognized medical practitioner or by an independent medical referee.

The competent authority may delegate the arrangements for appeals, or part of them, to an organization or authority exercising similar functions in respect of ~~seafarers~~ fishing vessel personnel generally.

The appeals procedure may include the following elements:

(i) the medical practitioner or referee undertaking the review should have at least the same qualifications as the medical practitioner who conducted the initial examination;

(ii) the medical practitioner or referee undertaking the review process should be provided access to other medical experts;

(iii) the appeals procedure should not result in unnecessary delays for the ~~seafarer~~ fishing vessel personnel or ~~shipowner~~ fishing vessel owner;

(iv) the same principles of confidentiality called for in the handling of medical records should apply to the appeals procedure; and

(v) quality assurance and review procedures should be in place to confirm the consistency and appropriateness of decisions taken at appeal.

Part 3. Guidance to persons ~~authorized~~ recognized by competent authorities to conduct medical examinations and to issue medical certificates

X. Role of the medical examination ~~in shipboard safety~~ in fishing safety and health

The medical practitioner should be aware of the role of the medical examination in the enhancement of safety and health at sea and in assessing the ability of ~~seafarers~~ fishing vessel personnel to perform their routine and emergency duties and to live on board:

(i) The consequences of impairment from illness while working at sea will depend on the routine and emergency duties of the ~~seafarer~~ fishing vessel personnel and on the distance of the ~~ship~~ fishing vessel from shore-based medical care. Such impairments may adversely affect ~~ship~~ fishing vessel s, as both the individual and those who provide care will not be available for

normal duties. Illness at sea can also put the individual at risk because of the limited care available, as ~~ships'~~ fishing vessel's officers only receive basic first-aid and other medical training, and ~~ships~~ fishing vessels are only equipped with basic medical supplies. Medication used by ~~seafarers~~ fishing vessel personnel needs to be carefully assessed as it can lead to impairment from side effects that cannot be readily managed at sea. Where medication is essential to control a potentially life-threatening condition, inability to take it may lead to serious consequences.

(ii) Infectious diseases may be transmitted to others on board. This is particularly relevant to food-borne infections in those who prepare or handle food or drinks. Screening for relevant infections may be undertaken at the medical examination or at other times.

(iii) Limitations to physical capability may affect ability to perform routine and emergency duties (e.g. using breathing apparatus). Such limitations may also make rescue in the event of injury or illness difficult.

(iv) The medical examination can be used to provide an opportunity to identify early disease or risk factors for subsequent illness. The ~~seafarer~~ fishing vessel personnel can be advised on preventive measures or referred for further investigation or treatment in order to maximize their opportunities for continuing their career ~~at sea~~ as fishing vessel personnel. However, the ~~seafarer~~ fishing vessel personnel should be made aware that ~~it does not replace~~ such advice or referral does not replace the need for other clinical contacts or necessarily provide the main focus for advice on health maintenance.

(v) If a medical condition is identified, any adverse consequences may be reduced by increasing the frequency of surveillance, limiting duties to those where the medical condition is not relevant or limiting the pattern of voyages to ensure that health care is readily available.

(vi) ~~Seafarers~~ Fishing vessel personnel need to be able to adjust to living and working conditions on board ~~ships~~ fishing vessels, including the requirement to keep watches at varying times of the day and night, the motion of the vessel in bad weather, the need to live and work within the limited spaces of a ~~ship~~ fishing vessel, to climb and lift weights and to work under a wide variety of weather conditions ~~(see appendix C, table B-I/9 for examples of relevant physical abilities)~~.

(vii) ~~Seafarers~~ Fishing vessel personnel should be able to live and work closely with the same people for long periods of time and under occasionally stressful conditions. They should be capable of dealing effectively with isolation from family and friends and, in some cases, from persons of their own cultural background.

~~Shipping~~ Fishing operations and shipboard duties vary substantially. For a fuller understanding of the physical demands of particular categories of work on board ~~ships~~ fishing vessels, medical practitioners should acquire knowledge of the STCW-F Convention, ~~1978~~ 1995, as amended, the ILO Work in Fishing Convention, and the ILO Handbook for improving living and working conditions on board fishing vessels 2010 and appropriate national requirements, and should consult the relevant national authority, ~~shipping~~ fisheries company and ~~trade~~ fisheries union representatives and otherwise endeavour to learn as much as possible about ~~seafaring~~ fishing life.

XI. Type and frequency of medical examinations

For most medical conditions, the same criteria are appropriate for medical examinations undertaken at all stages of a ~~seafaring~~ fishing career. However, where a condition is present that is likely to worsen in the future and thus limit a ~~cadet's or~~ trainee's ability to undertake the range of duties and assignments that are essential for complete training, there may be less flexibility in the application of fitness standards than for serving ~~seafarers~~ fishing vessel personnel, in order to ensure that all training requirements can be met.

Examinations are normally performed every two years. Where there is a health condition that requires more frequent surveillance, they may be performed at shorter intervals. It is important to recognize that the requirement for more frequent examinations may limit the ability of ~~a seafarer~~ fishing vessel personnel to obtain employment and lead to additional costs for the ~~seafarer~~ fishing vessel personnel or their employer. If examinations are at intervals of less than two years, they may solely concern the condition under surveillance and, in this case, any reissued medical certificate should not be valid for more than two years from the previous full examination.

Any examination requirements of employers or insurers should be distinguished from statutory fitness examinations; the ~~seafarer~~ fishing vessel personnel should be informed if both are being assessed at the same time and should consent to this. A medical certificate should be issued if statutory standards are met, irrespective of compliance with any additional employer requirements.

~~Seafarer~~ Fishing vessel personnel medical examinations may also provide an opportunity to take measures to correct or mitigate medical conditions which could adversely affect the health of ~~seafarers~~ fishing vessel personnel and should include measures of a preventive character. Tests necessary to evaluate the occupational exposure at work on board ~~ship~~ fishing vessel may, when appropriate, be performed at the same time as the periodic examinations.

XII. Conduct of medical examinations

The following suggested procedures do not aim to replace in any way the judgement or experience of the medical practitioner. They will, however, serve as a tool to assist in the conduct of examinations of ~~seafarers~~ fishing vessel personnel. A model medical examination form has been provided in appendix F.

(i) The medical practitioner should determine whether there is any special purpose for the examination (e.g. return after illness or follow-up for continuing health problem) and, if so, should conduct the examination accordingly.

(ii) The identity of the ~~seafarer~~ fishing vessel personnel to be examined should be verified. The number ~~of~~ reflected on their ~~seafarer's book~~ seafarers' identity documents in accordance with national requirements or Seafarers' Identity Documents Convention (Revised), 2003, as amended (No.185), passport or other relevant identity document, as appropriate, should be entered on the examination form.

(iii) The ~~examinee's~~ fishing vessel personnel's intended position on board ~~ship~~ the fishing vessel and, as far as practicable, the physical and mental demands of this work and the anticipated voyage pattern should be established. This may give insights that enable work to continue but with limitations based on the nature of the voyage (for example, fit for coastal or harbour service only) and the job to be held.

(iv) Information should be collected from the ~~examinee~~ fishing vessel personnel on his or her previous medical history. Point-by-point questions on the details of previous diseases and injuries should be asked and the results recorded. Details of other diseases or injuries not covered should also be recorded. After the information is collected, the examinee should sign the form to certify that to the best of his/her knowledge it is a true statement. An individual should not, however, bear the burden of proof concerning the consequences of illness, past or present, on his or her fitness for work.

(v) The ~~examinee's~~ fishing vessel personnel's previous medical records, where appropriate and available, should be reviewed.

(vi) The physical examination and the necessary additional examinations should be checked and recorded according to set procedures (see appendix F).

(vii) Hearing, eyesight and colour vision, if necessary, should be checked and recorded. Eyesight should be in compliance with the ~~international eyesight standards for seafarers~~ minimum in-service eyesight standards for fishing vessel personnel set out in section ~~A-I/9~~ A-I/12 of the STCW-F Code (see appendix A for vision standards and appendix B for hearing standards). In examinations, appropriate equipment should be used in the assessment of hearing capacity, visual acuity, colour vision and night blindness, particularly regarding those examinees who will be engaged in lookout duties.

(viii) Physical capability should be assessed where the medical examination identifies that it may be limited by an impairment or medical condition (see appendix C).

(ix) Testing for the presence of alcohol and drugs in the course of a medical examination does not form part of these international Guidelines. Where it is performed, as a requirement of national authorities or employers, the procedures used should follow national, if available, or international good practice guidelines. These should provide adequate procedural and ethical safeguards for the ~~seafarer~~ fishing vessel personnel. Consideration should be given to the Guiding Principles on Drug and Alcohol Testing Procedures for Worldwide Application in the Maritime Industry, adopted by the Joint ILO-WHO Committee on the Health of Seafarers (Geneva, 10-14 May 1993), and any subsequent revisions.

(x) The application of multiple biochemistry or haematology tests or the use of imaging techniques applied to all ~~seafarers~~ fishing vessel personnel is not recommended, other than where indicated in appendices A to E. Such tests should only be used where there is a clinical indication. The validity of any test used for the identification of a relevant medical condition will depend on the frequency with which the condition occurs. Use is a matter for national or local judgement, based on disease incidence and test validity. In addition, decisions about fitness based solely on the results of single or multiple screening tests in the absence of a specific diagnosis or impairment are of limited predictive value. Unless tests have very high validity, use will result in inappropriate certification of a proportion of those tested.

(xi) The medical practitioner should be aware that there are no well-validated tests for the assessment of mental aspects of working ability that are suitable for inclusion in the medical examinations of ~~seafarers~~ fishing vessel personnel.

(xii) The results of the examination should be recorded and assessed to determine if the ~~seafarer~~ fishing vessel personnel is fit for the work which will be undertaken. Appendices A to E contain guidance on medical criteria used to consider whether ~~a seafarer~~ fishing vessel personnel is fit or currently unfit for work ~~at sea~~ as fishing vessel personnel. The age and experience of the ~~seafarer~~ fishing vessel personnel to be examined, the nature of the duties to be performed and the type of ~~shipping~~ fishing operation ~~and cargo~~ should be taken into account.

There are defined numerical criteria for some aspects of vision (appendix A) and hearing (appendix B). Here, decisions on fitness will depend on achieving the levels of perception that are listed, taking note of the explanatory information in the appendices. For other conditions, where such numerical criteria do not exist, the criteria have been classified in three categories, depending on the likelihood of recurrence at different stages and the severity of each condition.

Case-by-case assessment is recommended in the appendices where a specialist view on prognosis is needed or where there is considerable diversity in capability or likelihood of recurrence or progression.

(A) Incompatible with the reliable performance of routine and emergency duties safely or effectively:

(i) expected to be temporary (T), i.e. less than two years;

(ii) expected to be permanent (P), i.e. more than two years.

For ~~seafarers~~ fishing vessel personnel who are determined by the medical practitioner to have a medical condition where such a finding has been made, a medical certificate would not normally be issued.

This category means that the medical condition is such that the ~~seafarer~~ fishing vessel personnel may cause a danger to the safety of the vessel or to other persons on board; they may not be able to perform their routine and emergency duties on board; or their health or life may be put at greater risk than would be the case if they were on shore. The category may be used temporarily until a condition has been treated, returns to normal or a period without further episodes indicates that the likelihood of recurrence is no longer increased. It may be used on a permanent basis where the ~~seafarer~~ fishing vessel personnel has a condition that can be expected to render them unable to meet the standards in the future.

(B) Able to perform some but not all routine and emergency duties or to work in some but not all waters (R): a restricted medical certificate would normally be issued.

Increased surveillance needed (L): a medical certificate of limited duration would normally be issued.

This category may mean that the ~~seafarer~~ fishing vessel personnel has a condition that requires more frequent medical assessment than the two-year normal interval between medical certificates – i.e. a time-limited medical certificate (L).

Alternatively, they may be capable of performing the routine and emergency duties required of all ~~seafarers~~ fishing vessel personnel but need some of their own duties to be adapted because they are expected not to be able to perform some of the duties specific to the work they normally undertake. They may also be more likely to suffer serious adverse effects from working in certain climates or beyond a certain distance from onshore medical care. In these cases, the job adaptations needed are specified and the medical certificate is restricted (R).

Use of this category can enable ~~seafarers~~ fishing vessel personnel to remain working despite the presence of certain health-related impairments. However, it should be used only when clearly indicated as it may lead to the possibility that an employer will choose not to engage ~~a~~ ~~seafarer~~ fishing vessel personnel even for duties that are within their capabilities or where duties can readily be adjusted.

(C) **Able to perform all duties worldwide within designated department**: an unrestricted medical certificate of full duration would normally be issued.

This category means that the ~~seafarer~~ fishing vessel personnel can be expected to be fit for all duties within their department on board and can fully discharge all routine and emergency duties for the duration of the medical certificate.

If the ~~seafarer~~ fishing vessel personnel is found fit for the work to be performed, the medical certificate should be issued. Any restrictions concerning work (i.e. the job the ~~seafarer~~ fishing vessel personnel will perform, the ~~trade~~ fishing area, the time limit or other considerations) should be reflected on the medical certificate in the description of the work he or she is fit to undertake. Further information on the medical certificate is provided in appendix G.

If the ~~seafarer~~ fishing vessel personnel is found temporarily or permanently unfit for service or has restrictions and/or limitations placed on their duties, he or she should be given an explanation of the reasons and should be advised of the right to appeal and on how to make an appeal. Additional guidance on appeals procedures is provided in section IX of these Guidelines. If "temporarily unfit", advice should be given on the need to undergo additional tests, to obtain opinions from specialists or to complete dental or other treatment, rehabilitation and/or appropriate medical care. The ~~seafarer~~ fishing vessel personnel should be informed when to return for another examination.

As appropriate, the ~~seafarer~~ fishing vessel personnel should be counselled on lifestyle (limiting alcohol intake, stopping smoking, modifying diet, losing weight, avoiding drug abuse and mental health awareness, etc.) and on the dangers of and methods of prevention of malaria, hepatitis, HIV/AIDS and other communicable diseases. Printed health educational materials on drug and alcohol abuse prevention, smoking cessation, diet, communicable diseases prevention, etc. should also be provided, if available.

The medical examination records should be clearly marked as confidential and retained, according to national regulations, in the custody of the health establishment where the medical certificate was issued. The file should be kept confidential and should not be used for any purpose other than facilitating the treatment of ~~seafarers~~ fishing vessel personnel and should be made available only to persons duly authorized in accordance with national data protection laws.

Relevant information on his/her health should be given to the ~~seafarer~~ fishing vessel personnel on request and the ~~seafarer~~ fishing vessel personnel should be advised to take it to the next medical examination or when he or she is treated for an illness or injury. If possible, a card indicating blood type, any serious allergies and other vital information should also be given to the ~~seafarer~~ fishing vessel personnel to facilitate emergency treatment.

A copy of the medical certificate should be kept in the files of the health institution in which it was issued.

APPENDIX A

Vision standards

Testing

All tests needed to determine the visual fitness of a ~~seafarer~~ fishing vessel personnel are to be reliably performed by a competent person and use procedures recognized by the relevant national authority. Quality assurance of vision-testing procedures at a person's first ~~seafarer~~ fishing vessel personnel examination is particularly important to avoid inappropriate career decisions; competent authorities may wish to specify this in detail:

- Distance vision should be tested using Snellen test type or equivalent.
- Near vision should be tested with reading test type.
- Colour vision should be tested by colour confusion plates (Ishihara or equivalent). Supplementary investigations such as lantern tests may be used when appropriate (see the International Recommendations for Colour Vision Requirements for Transport of the International Commission on Illumination (CIE-143-2001, including any subsequent versions)). The use of colour-correcting lenses will invalidate test results and should not be permitted.
- Visual fields may initially be assessed using confrontation tests (Donders, etc.) and any indication of limitation or the presence of a medical condition where visual field loss can occur should lead to more detailed investigation.
- Limitations to night vision may be secondary to specific eye diseases or may follow ophthalmological procedures. They may also be noted during other tests or found as a result of limitations to low-contrast vision testing. Specialist assessment should be undertaken if reduced night vision is suspected.

Visual correction

Medical practitioners should advise persons required to use spectacles or contact lenses to perform duties that they should have a spare pair or pairs, as required, conveniently available on board the ~~ship~~ fishing vessel.

Additional guidance

If laser refractive surgery has been undertaken, recovery should be complete and the quality of visual performance, including contrast, glare sensitivity and the quality of night vision, should have been checked by a specialist in ophthalmology.

All ~~seafarers~~ fishing vessel personnel should achieve the minimum eyesight standard of 0.1 unaided in each eye ~~(STCW Code, section B-I/9, paragraph 10)~~. This standard may also be relevant to other ~~seafarers~~ fishing vessel personnel to ensure visual capability under emergency conditions when visual correction may be lost or damaged.

~~Seafarers~~ Fishing vessel personnel not covered by the STCW-F Convention's eyesight standards should have vision sufficient to perform their routine and emergency duties safely and effectively.

STCW-F Code table ~~A-I/9~~ A-I/12: Minimum in-service eyesight standards for ~~seafarers~~ fishing vessel personnel

(copy and paste table A-I/12 of the draft STCW-F CODE)

APPENDIX B

Hearing standards

Testing

Hearing capacity for ~~seafarers~~ fishing vessel personnel apart from those identified below should be an average of at least 30 dB (unaided) in the better ear and an average of 40 dB (unaided) in the less good ear within the frequencies 500, 1,000, 2,000 and 3,000 Hz (approximately equivalent to speech-hearing distances of 3 metres and 2 metres, respectively).

It is recommended that hearing examinations should be made by a pure tone audiometer. Alternative assessment methods using validated and standardized tests that measure impairment to speech recognition are also acceptable. Speech and whisper testing may be useful for rapid practical assessments. It is recommended that those undertaking deck/bridge duties are able to hear whispered speech at a distance of 3 metres.

Hearing aids are only acceptable in serving ~~seafarers~~ fishing vessel personnel where it has been confirmed that the individual will be capable of safely and effectively performing the specific routine and emergency duties required of them on the vessel that they serve on throughout the period of their medical certificate. (This may well require access to a back-up hearing aid and sufficient batteries and other consumables.) Arrangements need to be in place to ensure that they will be reliably aroused from sleep in the event of an emergency alarm.

If noise-induced hearing loss is being assessed as part of a health surveillance programme, different criteria and test methods will be required.

It is recommended that national authorities indicate which tests for hearing are to be used, based on national audiological practices, using the above thresholds as criteria. Procedures should include the methods to be adopted in deciding if the use of a hearing aid is acceptable.

APPENDIX C

Physical capability requirements

Introduction

The physical capability requirements for work ~~at sea~~ on board a fishing vessel vary widely and have to take account of both routine and emergency duties. The functions that may require assessment include:

- strength;
- stamina;
- flexibility;
- balance and coordination;
- size – compatible with entry into confined areas;
- exercise capacity – heart and respiratory reserve; and
- fitness for specific tasks – wearing breathing apparatus.

Medical conditions and physical capability

Limitations may arise from a range of conditions, such as:

- high or low body mass/obesity;
- severely reduced muscle mass;
- musculoskeletal disease, pain or limitations to movement;
- a condition following an injury or surgery;
- lung disease;
- heart and blood vessel disease; and
- some neurological diseases.

Physical capability assessment

Physical capability testing should be undertaken ~~when there is an indication for it, for instance because of the presence of one of the above conditions or because of other concerns about a seafarer's fishing vessel personnel's physical capabilities. The aspects that are tested will depend on the reasons for doing it~~ if medical conditions or physical capabilities are apparent that adversely impact range of conditions relevant to the required physical duties of the fishing vessel personnel. ~~Table B-I/9~~ Table B-I/12 gives recommendations for physical capability abilities to be assessed for those ~~seafarers covered by the STCW Convention, 1978, as amended~~ fishing vessel personnel covered by the STCW-F Convention, 1995 as amended, based on the tasks undertaken at sea.

The following approaches may be used to assess whether the requirements in table ~~B-I/9~~ B-I/12 are met:

- Observed ability to do routine and emergency duties in a safe and effective way.
- Tasks that simulate normal and emergency duties.
- Assessment of cardio-respiratory reserve, including spirometry and ergometric tests.

This will predict maximum exercise capacity and hence the ~~seafarer's~~ fishing vessel personnel's ability to perform physically demanding work. A large reserve will also indicate that heart and lung performance is less likely to be compromised in the next few years. The benchmark test is maximum oxygen uptake (VO2 max). This requires dedicated

equipment. Step tests such as the Chester or the Harvard are simpler alternatives, which may be used for screening. If step tests are abnormal, they should be further validated (e.g. VO2 max or treadmill stress tests).

- Informal testing of reserve, for instance climbing three to six flights of stairs and assessing any distress, plus the speed of pulse rate decline on stopping. This is not readily reproducible but can be used for repeat assessment at the same location by the same medical practitioner.

- Clinical assessment of strength, mobility, coordination, etc.

Additional information may come from activities recently or regularly undertaken, as described by the ~~seafarer~~ fishing vessel personnel, such as:

- physically demanding duties on the vessel, e.g. carrying weights or handling mooring equipment;

- attendance at a physically demanding course within the last two years, e.g. fire-fighting, ~~helicopter escape~~ Sea Survival or STCW-F basic training; and

- a confirmed personal pattern of regular strenuous exercise.

Interpretation of results

(1) Is there any evidence that the ~~seafarer~~ fishing vessel personnel is not able to perform their routine and emergency duties effectively?

(2) Are there any observed limitations to strength, flexibility, stamina or coordination?

(3) What is the outcome of any test for cardio-respiratory reserve?

(i) Test performance limited by shortness of breath, musculoskeletal or other pain, or exhaustion. Causes need to be investigated and taken into account in determining fitness.

(ii) Unable to complete test.

(iii) Completed but stressed or with poor recovery after stopping.

(iv) Completed to good or average standard.

(4) Discuss subjective feelings during the test with the subject and also go over experiences of fitness and capability when doing normal tasks and emergency drills. Obtain corroboration from others if performance at work uncertain.

Decision-making

Information from a range of sources may be required and many of these are not easily accessed in the course of a medical examination:

(1) Is there any indication that physical capability may be limited (e.g. stiffness, obesity or history of heart disease)?

(i) No – do not test.

(ii) Yes – consider what tests or observations will enable the ~~seafarer's~~ fishing vessel personnel's capability to perform their routine and emergency duties to be determined. Go to (2).

(2) Do the test results indicate that capabilities may be limited?

(i) No – provided there are no underlying conditions that affect conduct of assessment. Able to perform all duties worldwide within designated department.

(ii) Yes – but duties can be modified to enable safe working, without putting excess responsibilities on others. Able to perform some but not all duties (R).

(iii) Yes – but cause of limitation can be remedied. Incompatible with reliable performance of essential duties safely or effectively (T).

(iv) Yes – but cause of limitation cannot be remedied. Incompatible with reliable performance of essential duties safely or effectively (P).

Table B-I/12 Assessment of minimum entry level and in-service physical abilities for fishing vessel personnel

(copy and paste table B-I/12 of the STCW-F CODE)

APPENDIX D

Fitness criteria for medication use

Introduction

Medication can play an important part in enabling ~~seafarers~~ fishing vessel personnel to continue to work at sea. Some have side effects that can affect safe and effective performance of duties and some have other complications that will increase the likelihood of illness at sea.

This appendix is only concerned with continuing prescribed medication use that is identified at the medical examination. ~~Ship~~ Fishing vessel ~~operators~~ owners need policies in place to reduce the impairing effects from short-term use of prescribed medication or the use of over-the-counter preparations.

The use of oral medication at sea may be prevented by nausea and vomiting, and illness may arise if an oral medication is used to suppress the harmful effects of a condition (e.g. epilepsy) or if it is used to replace essential body chemicals (e.g. hormones).

The examining medical practitioner will need to assess the known adverse effects of each medication used and the individual's reaction to it.

The use of specific medication for some conditions listed in appendix E is noted with the condition.

If medication is clinically essential for the effective control of a condition, e.g. insulin, anticoagulants and medication for mental health conditions, it is dangerous to stop it in an attempt to be fit for work at sea.

The medical practitioner should be alert to the need for the ~~seafarer~~ fishing vessel personnel to have written documentation for the use of their medications. This should be in a form that can be shown to any official who may question the presence of the medication on board. This is particularly important for those medications that are legally prescribed controlled drugs or those drugs which may be abused.

Medications that can impair routine and emergency duties

(1) Medication affecting the central nervous system functions (e.g. sleeping tablets, antipsychotics, some analgesics, some anti-anxiety and anti-depression treatments and some antihistamines).

(2) Agents that increase the likelihood of sudden incapacitation (e.g. insulin, some of the older anti-hypertensives and medications predisposing to seizures).

(3) Medication impairing vision (e.g. hyoscine and atropine).

Medications that can have serious adverse consequences for the user while at sea

(1) Bleeding from injury or spontaneously (e.g. warfarin); individual assessment of likelihood needed. Anticoagulants such as warfarin or dicoumarin normally have a likelihood of complications that is incompatible with work at sea but, if coagulation values are stable and closely monitored, work that is near to onshore medical facilities and that does not carry an increased likelihood of injury may be considered.

(2) Dangers from cessation of medication use (e.g. metabolic replacement hormones including insulin, anti-epileptics, anti-hypertensives and oral anti-diabetics).

(3) Antibiotics and other anti-infection agents.

(4) Anti-metabolites and cancer treatments.

(5) Medications supplied for use at individual discretion (asthma treatments and antibiotics for recurrent infections).

Medications that require limitation of period at sea because of surveillance requirements

A wide range of agents, such as anti-diabetics, anti-hypertensives and endocrine replacements.

Issue of medical certificates

Incompatible with the reliable performance of routine and emergency duties safely or effectively defined as Permanent (P) or Temporary (T):

- on the recommendation of the examining medical practitioner, based on reliable information about severe impairing side effects;

- oral medication where there are life-threatening consequences if doses are missed because of sickness;

- evidence indicating the likelihood of cognitive impairment when taken as prescribed; and

- established evidence of severe adverse effects likely to be dangerous at sea, e.g. anticoagulants.

Able to perform some but not all duties or to work in some but not all waters:

(R): medication can cause adverse effects but these only develop slowly, hence work in ~~coastal waters~~ limited waters will allow access to medical care.

(L): surveillance of medication effectiveness or side effects needed more frequently ~~that~~ than full duration of medical certificate (see guidelines on individual conditions in appendix E).

Able to perform all duties worldwide within designated department:

No impairing side effects; no requirements for regular surveillance of treatment.

APPENDIX E

Fitness criteria for common medical conditions

Introduction

The medical practitioner should bear in mind that it is not possible to develop a comprehensive list of fitness criteria covering all possible conditions and the variations in their presentation and prognosis. The principles underlying the approach adopted in the table below may often be extrapolated to conditions not covered by it. Decisions on fitness when a medical condition is present depend on careful clinical assessment and analysis and the following points need to be considered whenever a decision on fitness is taken:

- The recommendations in this appendix are intended to allow some flexibility of interpretation while being compatible with consistent decision-making that aims to maintain safety at sea.

- The medical conditions listed are common examples of those that may render ~~seafarers~~ fishing vessel personnel unfit. The list can also be used to determine appropriate limitations to fitness. The criteria given can only provide guidance for physicians and should not replace sound medical judgement.

- The implications for working and living at sea vary widely, depending on the natural history of each condition and the scope for treatment. Knowledge about the condition and an assessment of its features in the individual being examined should be used to reach a decision on fitness.

The table in this appendix is laid out as follows:

Column 1: WHO International Classification of Diseases, 10th revision (ICD-10) and 11th revision. Codes are listed as an aid to analysis and, in particular, international compilation of data.

Column 2: The common name of the condition or group of conditions, with a brief statement on its relevance to work at sea.

Column 3: The guideline recommending when work at sea is unlikely to be indicated, either temporarily or permanently. This column should be consulted first when the table is being used to aid decisions about fitness.

Column 4: The guideline recommending when work at sea may be appropriate but when restriction of duties or monitoring at intervals of less than two years is likely to be appropriate. This column should be consulted if the ~~seafarer~~ fishing vessel personnel does not fit the criteria in column 3.

Column 5: The guideline recommending when work at sea within a ~~seafarer's~~ fishing vessel personnel's designated department is likely to be appropriate. This column should be consulted if the ~~seafarer~~ fishing vessel personnel does not fit the criteria in column 3 or 4.

For some conditions, one or more columns are either not relevant or are not an appropriate certification category. These are identified by the term "Not applicable".

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
A00–B99 (01)	**Infections**			
A00–09 (1A00-40)	**Gastrointestinal infection** *Transmission to others, recurrence*	T – If detected while onshore (current symptoms or awaiting test results on carrier status); or confirmed carrier status until elimination demonstrated	Not applicable	*Non-catering department:* When satisfactorily treated or resolved *Catering department:* Fitness decision to be based on medical advice – bacteriological clearance may be required
A15–16 (1B10)	**Pulmonary TB** *Transmission to others, recurrence*	T – Positive screening test or clinical history, until investigated If infected, until treatment stabilized and lack of infectivity confirmed P – Relapse or severe residual damage	Not applicable	Successful completion of a course of treatment in accordance with WHO. Treatment of Tuberculosis guidelines.
A50–64 (1A60-9Z)	**Sexually transmissible infections** *Acute impairment, recurrence*	T – If detected while onshore, until diagnosis confirmed, treatment initiated and impairing symptoms resolved P – Untreatable impairing late complications	R – Consider near coastal if oral treatment regime in place and symptoms non-incapacitating	On successful completion of treatment
B15 (1E50.0)	**Hepatitis A** *Transmissible by food or water contamination*	T – Until jaundice resolved and liver function tests returned to normal	Not applicable	On full recovery
B16–19 (1E50.1-5Z)	**Hepatitis B, C, etc.** *Transmissible by contact with blood or other bodily fluids.*	T – Until jaundice resolved and liver function tests returned to normal	R, L – Uncertainty about total recovery or lack of infectivity. Case-by-case decision-making	On full recovery and confirmation of low level of infectivity

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
	Possibility of permanent liver impairment and liver cancer.	P – Persistent liver impairment with symptoms affecting safe work at sea or with likelihood of complications	based on duties and voyage patterns.	
B20–24 (1C60)	**HIV+** **Transmissible by contact with blood or other bodily fluids** **Progression to HIV-associated diseases or AIDS**	T – Until stabilized on treatment with CD4 level of >350 or when treatment changed and tolerance of new medication uncertain P – Non-reversible impairing HIV-associated diseases. Continuing impairing effects of medication.	R, L – Time limited and/or near coastal: HIV+ and low likelihood of progression; on no treatment or on stable medication without side effects, but requiring regular specialist surveillance	HIV+, no current impairment and very low* likelihood of disease progression. No side effects of treatment or requirements for frequent surveillance.
A00–B99 (01) Not listed separately	**Other infections** **Personal impairment, infection of others**	T – If detected while onshore: until free from risk of transmission and capable of performing duties P – If continuing likelihood of repeated impairing or infectious recurrences	Case-by-case decision based on nature of infection	Full recovery and confirmation of low level of infectivity

ICD-10 (ICD-11) *(diagnostic codes)*	**Condition *(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
C00–D48 (02)	**Cancers**			
C00–D48 (02)	**Malignant neoplasms – including lymphoma, leukaemia and related conditions. Recurrence – especially acute complications, e.g. harm to self from bleeding and to others from seizures.**	T – Until investigated, treated and prognosis assessed P – Continuing impairment with symptoms affecting safe work at sea or with high likelihood of recurrence	L – Time limited to interval between specialist reviews if: - cancer diagnosed <5 years ago; and - there is no current impairment of performance of normal or emergency duties or living at sea; and - there is a low likelihood of recurrence and minimal risk of requirement for urgent medical treatment. R – Restricted to near coastal waters if any continuing impairment does not interfere withessential duties and any recurrence is unlikely to require emergency medical treatment	Cancer diagnosed more than five years ago, or specialist reviews no longer required and no current impairment or low continuing likelihood of impairment from recurrence To be confirmed by specialist report with evidence for opinion stated
D50–89 (03)	**Blood disorders**			
ICD-10 (ICD-11) *(diagnostic codes)*	**Condition *(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
D50–59 (3A00-9Z)	**Anaemia/Haemoglobinopathies.** **Reduced exercise tolerance.** **Episodic red cell breakdown.**	T – Distant waters, until haemoglobin normal and stable P – Severe recurrent or continuing anaemia or impairing symptoms from red cell breakdown that are untreatable	R, L – Consider restriction to near coastal waters and regular surveillance if reduced haemoglobin level but asymptomatic	Normal levels of haemoglobin
D73 (3B80-8Z)	**Splenectomy (history of surgery).** **Increased susceptibility to certain infections.**	T – Post surgery until fully recovered	R – Case-by-case assessment. Likely to be fit for coastal and temperate work but may need restriction on service in tropics.	Case-by-case assessment
D50–89 (03) Not listed separately	**Other diseases of the blood and blood-forming organs.** **Varied recurrence of abnormal bleeding and also possibly reduced exercise tolerance or low resistance to infections.**	T – While under investigation P – Chronic coagulation disorders	Case-by-case assessment for other conditions	Case-by-case assessment
E00–90 **(05)**	**Endocrine and metabolic**			
E10 (5A10)	**Diabetes – Insulin using.** **Acute impairment from hypoglycaemia. Complications from loss of blood glucose control.** **Increased likelihood of visual, neurological and cardiac problems.**	T – From start of treatment until stabilized P – If poorly controlled or not compliant with treatment. History of hypoglycaemia or loss of hypoglycaemic awareness. Impairing complications of diabetes.	R, L – Subject to evidence of good control, full compliance with treatment recommendations and good hypoglycaemia awareness. Fit for near coastal duties without solo watchkeeping. Time limited until next specialist check-up. Must be under regular specialist surveillance.	Not applicable

ICD-10 (ICD-11) *(diagnostic codes)*	**Condition *(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively - expected to be temporary (T) - expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
ICD-10 (ICD-11) *(diagnostic codes)*	**Condition *(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively - expected to be temporary (T) - expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
E11–14 (5A11-14)	**Diabetes – Non-insulin treated, on other medication. Progression to insulin use, increased likelihood of visual, neurological and cardiac problems.**	T – Distant waters and watchkeeping until stabilized	R – Near coastal waters and non-watchkeeping duties until stabilized R – Near coastal waters, no solo watchkeeping if minor side effects from medication. Especially when using sulphonylureas. L – Time limited if compliance poor or medication needs frequent review. Check diet, weight and vascular risk factor control.	When stabilized, in the absence of impairing complications
	Diabetes – Non-insulin treated, treated by diet alone. Progression to insulin use, increased likelihood of visual, neurological and cardiac problems.	T – Distant waters and watchkeeping until stabilized	R – Near coastal waters and non-watchkeeping duties until stabilized L – Time limited when stabilized, if compliance poor. Check diet, weight and vascular risk factor control.	When stabilized, in the absence of impairing complications

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
E65–68 (5B80-5C3Z)	**Obesity/abnormal body mass – high or low.** **Accident to self, reduced mobility and exercise tolerance for routine and emergency duties. Increased likelihood of diabetes, arterial diseases and arthritis.**	T – If safety-critical duties cannot be performed, capability or exercise test (appendix C) performance is poor P – Safety-critical duties cannot be performed; capability or exercise test performance is poor with failure to achieve improvements. Note: Body mass index is a useful indicator of when additional assessment is needed. National norms will vary. It should not form the sole basis for decisions on capability.	R, L – Time limited and restricted to near coastal waters or to restricted duties if unable to perform certain tasks but able to meet routine and emergency capabilities for assigned safety-critical duties	Capability and exercise test (appendix E) performance average or better, weight steady or reducing and no co-morbidity
E00–90 (05) Not listed separately	**Other endocrine and metabolic disease (thyroid, adrenal including Addison's disease, pituitary, ovaries, testes)** **Likelihood of recurrence or complications**	T – Until treatment established and stabilized without adverse effects P – If continuing impairment, need for frequent adjustment of medication or increased likelihood of major complications	R, L – Case-by-case assessment with specialist advice if any uncertainty about prognosis or side effects of treatment. Need to consider likelihood of impairing complications from condition or its treatment, including problems taking medication, and consequences of infection or injury while at sea.	If medication stable with no problems in taking at sea and surveillance of conditions infrequent, no impairment and very low likelihood of complications. Addison's disease: The risks will usually be such that an unrestricted certificate should not be issued.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
F00–99 (06)	**Mental, cognitive and behavioural disorders**			
F10 (6C40)	**Alcohol abuse (dependency). Recurrence, accidents, erratic behaviour/safety performance.**	T – Until investigated and stabilized and criteria for fitness met. Until one year after initial diagnosis or one year after any relapse. P – If persistent or there is co-morbidity likely to progress or recur while at sea	R, L – Time limited, not to work as master in charge of vessel or without close supervision and continuing medical monitoring, provided that: treating physician reports successful participation in rehabilitation programme; and there is an improving trend in liver function tests.	After three years from end of last episode without relapse and without co-morbidity
F11–19 (6C41-4Z)	**Drug dependence/persistent substance abuse, includes both illicit drug use and dependence on prescribed medications. Recurrence, accidents, erratic behaviour/safety performance.**	T – Until investigated and stabilized and criteria for fitness met. Until one year after initial diagnosis or one year after any relapse. P – If persistent or there is co-morbidity likely to progress or recur while at sea	R, L – Time limited, not to work as master in charge of vessel or without close supervision and continuing medical monitoring, provided that: – treating physician reports successful participation in rehabilitation programme; – evidence of completion of unannounced/random programme of drug screening for at least three months with no positives and at least three negatives; and – continuing participation in drugscreening programme.	After three years from end of last episode without relapse and without co-morbidity

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
F20–31 (6A20-25, 6A60-61, 6A6Y-6Z)	**Psychosis (acute) – whether organic, schizophrenic or other category listed in the ICD. Bipolar (manic depressive disorders).** **Recurrence leading to changes to perception/cognition, accidents, erratic and unsafe behaviour.**	Following single episode with provoking factors: T – Until investigated and stabilized and conditions for fitness met. At least three months after episode.	R, L – Time limited, restricted to near coastal waters and not to work as master in charge of vessel or without close supervision and continuing medical monitoring, provided that: – ~~seafarer~~ fishing vessel personnel has insight; – is compliant with treatment; and – has no adverse effects from medication.	Case-by-case assessment at least one year after the episode, provided that provoking factors can and will always be avoided.
		Following single episode without provoking factors or more than one episode with or without provoking factors: T – Until investigated and stabilized and conditions for fitness met. At least two years since last episode. P – More than three episodes or continuing likelihood of recurrence. Criteria for fitness with or without restrictions are not met.	R, L – Time limited, restricted to near coastal waters and not to work as master in charge of vessel or without close supervision and continuing medical monitoring providing that: – the ~~seafarer~~ fishing vessel personnel has insight; – is compliant with treatment; and – has no impairing adverse effects from medication.	Case-by-case assessment to exclude likelihood of recurrence at least five years since end of episode if no further episodes; no residual symptoms; and no medication needed during last two years.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
F32–38 (6A70-8Z)	**Mood/affective disorders** **Severe anxiety state, depression or any other mental disorder likely to impair performance.** **Recurrence, reduced performance, especially in emergencies.**	T – While acute, under investigation or if impairing symptoms or side effects of medication present. At least three months on stable medication. P – Persistent or recurrent impairing symptoms	R, L – Restrict to near coastal waters and not to work as master in charge of ship, only when ~~seafarers~~ fishing vessel personnel has: – good functional recovery; – insight; – is fully compliant with treatment, with no impairing side effects; and – a low* likelihood of recurrence.	Case-by-case assessment to exclude likelihood of recurrence after at least two years with no further episodes and with no medication or on medication with no impairing effects
	Mood/affective disorders **Minor or reactive symptoms of anxiety/depression.** **Recurrence, reduced performance, especially in emergencies.**	T – Until symptom free. If on medication to be on a stable dose and free from impairing adverse effects. P – Persistent or recurrent impairing symptoms	R, L – Time limited and consider geographical restriction if on stable dose of medication and free from impairing symptoms or impairing side effects from medication	Case-by-case assessment after one year from end of episode if symptom free and off medication or on medication with no impairing effects
F00–99 (06) Not listed separately	**Other disorders, e.g. disorders of personality, attention (e.g. ADHD), development (e.g. autism).** **Impairment of performance and reliability and impact on relationships.**	P – If considered to have safety-critical consequences	R – As appropriate if capable of only limited duties	No anticipated adverse effects while at sea. No incidents during previous periods of sea service.
G00–99 (08)	**Diseases of the nervous system**			
G40–41 (8A60-6Z)	**Single seizure.** **Harm to ship, others and self from seizures.**	Single seizure T – While under investigation and for one year after seizure	R – One year after seizure and on stable medication. Non-watchkeeping duties in near coastal waters	One year after seizure and one year after end of treatment. If provoked, there should be no continuing exposure to the provoking agent

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
	Epilepsy – No provoking factors (multiple seizures). **Harm to ship, others and self from seizures.**	T – While under investigation and for two years after last seizure P – Recurrent seizures, not controlled by medication	R – Off medication or on stable medication with good compliance: case-by-case assessment of fitness, restricted to non-watchkeeping duties in near-coastal waters	Seizure-free for at least the last 10 years, has not taken anti-epilepsy drugs during that 10-year period and does not have a continuing likelihood of seizures
	Epilepsy – provoked by alcohol, medication, head injury (multiple seizures). **Harm to ship, others and self from seizures.**	T – While under investigation and for two years after last seizure P – Recurrent fits, not controlled by medication	R – Case-by-case assessment after two years' abstention from any known provoking factors, seizure-free and either off medication or on stable medication with good compliance; restricted to non-watchkeeping duties in near coastal waters	Seizure-free for at least the last five years, has not taken anti-epilepsy drugs during that five-year period, provided there is not continuing exposure to the provoking agent
G43 (8A80)	**Migraine (frequent attacks causing incapacity).** **Likelihood of disabling recurrences.**	P – Frequent attacks leading to incapacity	R – As appropriate. If only capable of limited duties.	No anticipated incapacitating adverse effects while at sea. No incidents during previous periods of sea service.
G47 (7A00-7B2Z) (Sleep-wake disorders: 07)	**Sleep apnoea.** **Fatigue and episodes of sleep while working.**	T – Until treatment started and successful for three months P – Treatment unsuccessful or not being complied with	L – Once treatment demonstrably working effectively for three months, including compliance with CPAP (continuous positive airway pressure) machine use confirmed. Six-monthly assessments of compliance based on CPAP machine recording	Case-by-case assessment based on job and emergency requirements, informed by specialist advice
	Narcolepsy.	T – Until controlled by treatment for at least two years	R, L – Near coastal waters and no watchkeeping duties, if specialist	Not applicable

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
	Fatigue and episodes of sleep while working.	P – Treatment unsuccessful or not being complied with	confirms full control of treatment for at least two years. Annual review.	
G00–99 (08) Not listed separately	**Other organic nervous disease, e.g. multiple sclerosis, Parkinson's disease Recurrence/progression. Limitations on muscular power, balance, coordination and mobility.**	T – Until diagnosed and stable P – If limitations affect safe working or unable to meet physical capability requirements (appendix C)	R, L – Case-by-case assessment based on job and emergency requirements, informed by specialist advice	Case-by-case assessment based on job and emergency requirements, informed by specialist advice
R55 (MG45)	**Syncope and other disturbances of consciousness. Recurrence causing injury or loss of control.**	T – Until investigated to determine cause and to demonstrate control of any underlying condition Event is: (a) Simple faint; Not a simple faint; unexplained disturbance, not recurrent and without any detected underlying cardiac, metabolic or neurological cause T – Four weeks Disturbance; recurrent or with possible underlying cardiac, metabolic or neurological cause T – With possible underlying cause that is not identified or	R, L – Case-by-case decision, near coastal with no lone watchkeeping R, L – Case-by-case decision, near coastal with no lone watchkeeping	Simple faint; if no incapacitating recurrences. Three months after event if no recurrences. With possible underlying cause but no treatable cause found; one year after event if no recurrences. With possible underlying cause found and treated; three months after successful treatment.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
		treatable; for six months after event if no recurrences T – With possible underlying cause or cause found and treated; for one month after successful treatment (d) Disturbance of consciousness with features indicating a seizure. Go to G40–41. P – For all of above if recurrent incidents persist despite full investigation and appropriate treatment		With seizure markers – not applicable.
T90 (NA00-0Z)	**Intracranial surgery/injury, including treatment of vascular anomalies or serious head injury with brain damage.** **Harm to ship, others and self from seizures. Defects in cognitive, sensory or motor function. Recurrence or complication of underlying condition.**	T – For one year or longer until seizure likelihood low,* based on advice from specialist P – Continuing impairment from underlying condition or injury or recurrent seizures	R – After at least one year, near coastal, no lone watchkeeping if seizure likelihoods low* and no impairment from underlying condition or injury. Conditional on continued compliance with any treatment and on periodic review, as recommended by specialist.	No impairment from underlying condition or injury, not on anti-epilepsy medications. Seizure likelihood very low.* Conditional on continued compliance with any treatment and on periodic review, as recommended by specialist.
H00–99 (09, 10)	**Diseases of the eyes and ears**			
H00–59 (09)	**Eye disorders: Progressive or recurrent (e.g. glaucoma, maculopathy, diabetic**	T – Temporary inability to meet relevant vision standards (appendix A) and low likelihood	R – Near coastal waters if recurrence unlikely but foreseeable	Very low likelihood of recurrence. Progression to a level where vision standards

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	retinopathy, retinitis pigmentosa, keratoconus, diplopia, blepharospasm, uveitis, corneal ulceration and retinal detachment). **Future inability to meet vision standards, risk of recurrence.**	of subsequent deterioration or impairing recurrence once treated or recovered P – Inability to meet relevant vision standards (appendix A) or, if treated, increased likelihood of subsequent deterioration or impairing recurrence	and treatable with early medical intervention L – If risk of progression foreseeable but unlikely and can be detected by regular monitoring	(appendix A) are not met during period of certificate is very unlikely.
H65–67 (AA80-AB0Z)	**Otitis – External or media. Recurrence, risk as infection source in food handlers, problems using hearing protection.**	T – Until treated P – If chronic discharge from ear in food handler	Case-by-case assessment. Consider effects of heat, humidity and hearing protection use in otitis externa.	Effective treatment and no excess likelihood of recurrence
H68–95 (AB10-AC0Z)	**Ear disorders: Progressive (e.g. otosclerosis)**	T – Temporary inability to meet relevant hearing standards (appendix B) and low likelihood of subsequent deterioration or impairing recurrence once treated or recovered P – Inability to meet relevant hearing standards (appendix B) or, if treated, increased likelihood or subsequent deterioration or impairing recurrence	L – If risk of progression foreseeable but unlikely and it can be detected by regular monitoring	Very low likelihood of recurrence. Progression to a level where hearing standards (appendix B) are not met during period of certificate is very unlikely.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
H81 (AB34)	**Ménière's disease and other forms of chronic or recurrent disabling vertigo.** **Inability to balance, causing loss of mobility and nausea.** **See STCW table in appendix C.**	T – During acute phase P – Frequent attacks leading to incapacity	R – As appropriate. If only capable of limited duties. R, L – If frequent specialist surveillance required	Low* likelihood of impairing effects while at sea
I00–99 (11)	**Cardiovascular system**			
I05–08I34–39 (BB60-BC20)	**Congenital and valve disease of heart (including surgery for these conditions).** **Heart murmurs not previously investigated.** **Likelihood of progression, limitations on exercise.**	T – Until investigated and, if required, treated P – If exercise tolerance limited or episodes of incapacity occur or if on anticoagulants or if permanent high likelihood of impairing event	R – Near coastal waters if case-by-case assessment indicates either likelihood of acute complications or rapid progression L – If frequent surveillance is recommended	Heart murmurs – Where unaccompanied by other heart abnormalities and considered benign by a specialist cardiologist following examination. Other conditions – Case-by-case assessment based on specialist advice.
I10–15 (BA00-04)	**Hypertension** **Increased likelihood of ischemic heart disease, eye and kidney damage and stroke. Possibility of acute hypertensive episode.**	T – Normally if >160 systolic or >100 diastolic mm Hg until investigated and treated in accordance with national or international guidelines for hypertension management P – If persistently >160 systolic or >100 diastolic mm Hg with or without treatment	L – If additional surveillance needed to ensure level remains within national guideline limits	If treated in accordance with national guidelines and free from impairing effects from condition or medication
I20–25 (BA40-6Z)	**Cardiac event, i.e. myocardial infarction, ECG evidence of past myocardial infarction or newly**	T – For three months after initial investigation and treatment, longer if symptoms not resolved	L – If excess likelihood of recurrence is very low* and fully compliant with risk reduction	Not applicable

ICD-10 (ICD-11) *(diagnostic codes)*	**Condition** *(justification for criteria)*	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
	recognized left bundle-branch block, angina, cardiac arrest, coronary artery bypass grafting, coronary angioplasty. **Sudden loss of capability, exercise limitation. Problems of managing repeat cardiac events at sea.**	P – If criteria for issue of certificate not met and further reduction of likelihood of recurrence improbable	recommendations and no relevant co-morbidity, issue six-month certificate initially and then annual certificate R, L – If excess likelihood of recurrence is low.* Restricted to: – no lone working or solo watchkeeping; and – operations in near-coastal waters, unless working on vessel with ship's doctor. Issue six-month certificate initially and then annual certificate. R, L – If likelihood of recurrence is moderate* and asymptomatic. Able to meet the physical requirements or their normal and emergency duties: – no lone working or watchkeeping/lookout; and – operating within one hour of port, unless working on vessel with ship's doctor. Case-by-case assessment to determine restrictions. Annual review.	

ICD-10 (ICD-11) *(diagnostic codes)*	**Condition** *(justification for criteria)*	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
I44–49 (BC63-65)	**Cardiac arrhythmias and conduction defects (including those with pacemakers and implanted cardioverter defibrillators (ICD)).** **Likelihood of impairment from recurrence, sudden loss of capability, exercise limitation.** **Pacemaker/ICD activity may be affected by strong electric fields.**	T – Until investigated, treated and adequacy of treatment confirmed P – If disabling symptoms present or excess likelihood of impairment from recurrence, including ICD implant	L – Surveillance needed at shorter intervals and no impairing symptoms present and very low* excess likelihood of impairment from recurrence, based on specialist report R – Restrictions on solo duties or for distant waters if low* likelihood of acute impairment from recurrence or foreseeable requirement for access to specialist care. Surveillance and treatment regime to be specified. If pacemaker fitted, duration of certificate to coincide with pacemaker surveillance.	Surveillance not needed or needed at intervals of more than two years; no impairing symptoms present; and very low* likelihood of impairment from recurrence, based on specialist report
I61–69G46 (8B00-2Z) (8B26)	**Ischaemic cerebrovascular disease (stroke or transient ischaemic attack).** **Increased likelihood of recurrence, sudden loss of capability, mobility limitation.** **Liable to develop other circulatory disease causing sudden loss of capability.**	T – Until treated and any residual impairment stabilized and for three months after event P – If residual symptoms interfere with duties or there is significant excess likelihood of recurrence	R, L – Case-by-case assessment of fitness for duties; exclude from lone watchkeeping. Assessment should include likelihood of future cardiac events. General standards of physical fitness should be met (appendix C). Annual assessment.	Not applicable
I73 (BD42-4Z) (4A44.8)	**Arterial-claudication** **Likelihood of other circulatory disease causing sudden loss of capability. Limits to exercise capacity.**	T – Until assessed P – If incapable of performing duties	R, L – Consider restriction to non-watchkeeping duties in coastal waters, provided symptoms are minor and do not impair essential duties or if they are resolved by	Not applicable

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
I73 (BD42-4Z) (4A44.8) *(continued)*			surgery or other treatment and general standard of fitness can be met (appendix C). Assess likelihood of future cardiac events (follow criteria in I20–25). Review at least annually.	
I83 (BD74.1)	**Varicose veins** **Possibility of bleeding if injured, skin changes and ulceration**	T – Until treated if impairing symptoms. Post-surgery for up to one month	Not applicable	No impairing symptoms or complications
I80.2–3 (BD71.4)	**Deep vein thrombosis/pulmonary embolus.** **Likelihood of recurrence and of serious pulmonary embolus.** **Likelihood of bleeding from anticoagulant treatment.**	T – Until investigated and treated and normally while on short-term anticoagulants P – Consider if recurrent events or on permanent anticoagulants	R, L – May be considered fit for work with a low liability for injury in national coastal waters, once stabilized on anticoagulants with regular monitoring of level of coagulation	Full recovery with no anticoagulant use
I00–99 (11) Not listed separately	**Other heart disease, e.g. cardio-myopathy, pericarditis, heart failure.** **Likelihood of recurrence, sudden loss of capability, exercise limitation.**	T – Until investigated, treated and adequacy of treatment confirmed P – If impairing symptoms or likelihood of impairment from recurrence	Case-by-case assessment, based on specialist reports	Case-by-case assessment, very low* likelihood of recurrence
J00–99 (12)	**Respiratory system**			
J02–04J30–39 (CA02-05) (CA08-0Z)	**Nose, throat and sinus conditions.** **Impairing for individual. May recur. Transmission of infection to food/other crew in some conditions.**	T – Until resolved P – If impairing and recurrent	Case-by-case assessment	When treatment complete, if no factors predisposing to recurrence

ICD-10 (ICD-11) *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively - expected to be temporary (T) - expected to be permanent (P)	Able to perform some but not all duties or to work in some but notall waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department
J40–44 (CA20-22)	Chronic bronchitis and/or emphysema. Reduced exercise tolerance and impairing symptoms.	T – If acute episode P – If repeated severe recurrences or if general fitness standards cannot be met or if impairing shortness of breath	R, L – Case-by-case assessment More stringency for distant water duties. Consider fitness for emergencies and ability to meet general standards of physical fitness (appendix C). Annual review.	Not applicable
J45–46 (CA23)	Asthma (detailed assessment with information from specialistin all new entrants). Unpredictable episodes of severe breathlessness.	T – Until episode resolved, cause investigated (including any occupational link) and effective treatment regime in place. In person under age 20 with hospital admission or oral steroid use in last three years. P – If foreseeable likelihood of rapid life-threatening asthma attack while at sea or history of uncontrolled asthma, i.e. history of multiple hospital admissions	R, L – Near coastal waters only or on ship with doctor if history of moderate** adult asthma, with good control with inhalers and no episodes requiring hospital admission or oral steroid use in last two years, or history of mild or exercise-induced asthma that requires regular treatment	Under age 20: If history of mild or moderate** childhood asthma, but with no hospital admissions or oral steroid treatment in last three years and no requirements for continuing regular treatment Over age 20: If history of mild** or exercise-induced** asthma and no requirements for continuing regular treatment
J93 (CB21)	Pneumothorax (spontaneous or traumatic). Acute impairment from recurrence.	T – Normally for 12 months after initial episode or shorter duration as advised by specialist P – After recurrent episodes unless pleurectomy or pleurodesis performed	R – Duties in harbour areas only once recovered	Normally 12 months after initial episode or shorter duration as advised by specialist.) Post-surgery – based on advice of treating specialist.

ICD-10 (ICD-11) *(diagnostic codes)*	**Condition** *(justification for criteria)*	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
K00–~~99~~93 (13)	**Digestive system**			
K01–06 (DA08-0D)	**Oral health.** **Acute pain from toothache.** **Recurrent mouth and gum infections.**	T – If visual evidence of untreated dental defects or oral disease P – If excess likelihood of dental emergency remains after treatment completed or ~~seafarer~~ fishing vessel personnel non-compliant with dental recommendations	R – Limited to near coastal waters, if criteria for full fitness not met, and type of operation will allow for access to dental care without safety-critical manning issues for vessel	If teeth and gums (gums alone of edentulous and with well-fitting dentures in good repair) appear to be good. No complex prosthesis; or if dental check in last year, with follow-up completed and no problems since.
K25–28 (DA60-63)	**Peptic ulcer.** **Recurrence with pain, bleeding or perforation.**	T – Until healing or cure by surgery or by control of helicobacter and on normal diet for three months P – If ulcer persists despite surgery and medication	R – Consider case-by-case assessment for earlier return to near coastal duties	When cured and on normal diet for three months
K40–41 (DD51-52)	**Hernias – Inguinal and femoral.** **Likelihood of strangulation.**	T – Until surgically investigated to confirm no likelihood of strangulation and, if required, treated	R – Untreated: Consider case-by-case assessment for near coastal waters	When satisfactorily treated or exceptionally when surgeon reports that there is no likelihood of strangulation
K42–43 (DD53-57)	**Hernias – Umbilical, ventral.** **Instability of abdominal wall on bending and lifting.**	Case-by-case assessment depending on severity of symptoms or impairment. Consider implications of regular heavy whole-body physical effort.	Case-by-case assessment depending on severity of symptoms or impairment. Consider implications of regular heavy whole-body physical effort.	Case-by-case assessment depending on severity of symptoms or impairment. Consider implications of regular heavy whole-body physical effort.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
K44 (DD50.0)	**Hernias – Diaphragmatic (hiatus). Reflux of stomach contents and acid causing heartburn, etc.**	Case-by-case assessment based on severity of symptoms when lying down and on any sleep disturbance caused by them	Case-by-case assessment based on severity of symptoms when lying down and on any sleep disturbance caused by them	Case-by-case assessment based on severity of symptoms when lying down and on any sleep disturbance caused by them
K50,51,57,58, 90 (DD70, 71, DC70-1Z, DD91.0, DA96.0)	**Non-infectious enteritis, colitis, Crohn's disease, diverticulitis, etc.** **Impairment and pain.**	T – Until investigated and treated P – If severe or recurrent	R – Does not meet the requirements for unrestricted certificate but rapidly developing recurrence unlikely: near coastal duties	Case-by-case specialist assessment. Fully controlled with low likelihood of recurrence.
K60I84 (DB50) (BD74.1)	**Anal conditions: Piles (haemorrhoids), fissures, fistulae.** **Likelihood of episode causing pain and limiting activity.**	T – If piles prolapsed, bleeding repeatedly or causing symptoms; if fissure or fistula painful, infected, bleeding repeatedly or causing faecal incontinence P – Consider if not treatable or recurrent	Case-by-case assessment of untreated cases for near coastal duties	When satisfactorily treated
K70, 72 (DB94,91,99.7 ,99.8)	**Cirrhosis of liver** **Liver failure. Bleeding oesophageal varices.**	T – Until fully investigated P – If severe or complicated by ascites or oesophageal varices	R, L – Case-by-case specialist assessment	Not applicable
K80–83 (DC11-14)	**Biliary tract disease.** **Biliary colic from gallstones, jaundice, liver failure.**	T – Biliary colic until definitely treated P – Advanced liver disease, recurrent or persistent impairing symptoms	R, L – Case-by-case specialist assessment. Does not meet requirements for unlimited certificate. Sudden onset of biliary colic unlikely.	Case-by-case specialist assessment. Very low likelihood of recurrence or worsening in next two years.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
K85–86 (DC30-3Z)	**Pancreatitis** **Likelihood of recurrence**	T – Until resolved P – If recurrent or alcohol related, unless confirmed abstention	Case-by-case assessment based on specialist reports	Case-by-case assessment based on specialist reports, very low likelihood of recurrence
Y83 (PK80)	**Stoma (ileostomy, colostomy)** **Impairment if control is lost – need for bags, etc. Potential problems during prolonged emergency.**	T – Until stabilized P – Poorly controlled	R – Case-by-case assessment	Case-by-case specialist assessment
N00–99 (16)	**Genito-urinary conditions**			
N00, N17 (GB40&XT5R, GB60)	**Acute nephritis** **Renal failure, hypertension**	P – Until resolved	Case-by-case assessment if any residual effects	Full recovery with normal kidney function and no residual damage
N03–05, N18–19 (GB40&XT8W, GB41, GB40&XK70) (GB61, GB6Z)	**Sub-acute or chronic nephritis or nephrosis.** **Renal failure, hypertension.**	T – Until investigated	R, L – Case-by-case assessment by specialist, based on renal function and likelihood of complications	Case-by-case assessment by specialist, based on renal function and likelihood of complications
N20–23 (GB70-7Z)	**Renal or ureteric calculus.** **Pain from renal colic.**	T – Until investigated and treated P – Recurrent stone formation	R – Consider if concern about ability to work in tropics or under high temperature conditions. Case-by-case assessment for near coastal duties.	Case-by-case assessment by specialist with normal urine and renal function without recurrence

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
N33, N40 (GC00-01) (GA90)	**Prostatic enlargement/urinary obstruction.** **Acute retention of urine.**	T – Until investigated and treated P – If not remediable	R – Case-by-case assessment for near coastal duties	Successfully treated; low* likelihood of recurrence
N70–98 (GA00-07, GA12-1Z)	**Gynaecological conditions – Heavy vaginal bleeding, severe menstrual pain, endometriosis, prolapse of genital organs or other.** **Impairment from pain or bleeding**	T – If impairing or investigation needed to determine cause and remedy it	R – Case-by-case assessment if condition is likely to require treatment on voyage or affect working capacity	Fully resolved with low* likelihood of recurrence
R31, 80, 81, 82 (MF50.4Z, GB4Z, GB90.45, MF9Y)	**Proteinuria, haematuria, glycosuria or other urinary abnormality.** **Indicator of kidney or other diseases.**	T – If initial findings clinically significant P – Serious and non-remediable underlying cause – e.g. impairment of kidney function	L – When repeat surveillance required R, L – When uncertainty about cause but no immediate problem	Very low likelihood of serious underlying condition
Z90.5 (QF01.Y)	**Removal of kidney or one non-functioning kidney.** **Limits to fluid regulation under extreme conditions if remaining kidney not fully functional.**	P – Any reduction of function in remaining kidney in new ~~seafarer~~ fishing vessel personnel. Significant dysfunctionin remaining kidney of serving ~~seafarer~~ fishing vessel personnel.	R – No tropical or other heat exposure. Serving ~~seafarer~~ fishing vessel personnel with minor dysfunction in remaining kidney.	Remaining kidney must be fully functional and not liable to progressive disease, based on renal investigations and specialist report

ICD-10 (ICD-11) *(diagnostic codes)*	**Condition** *(justification for criteria)*	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
O00–99 (18)	**Pregnancy**			
O00–99 (18)	**Pregnancy.** **Complications, late limitations on mobility. Potential for harm to mother and child in the event of premature delivery at sea.**	T – Late stage of pregnancy and early postnatal period. Abnormality of pregnancy requiring high level of surveillance.	R, L – Case-by-case assessment if minor impairing effects. May consider working until later in pregnancy on near coastal vessel.	Uncomplicated pregnancy with no impairing effects – normally until 24th week. Decisions to be in accord with national practice and legislation. Pregnancy should be declared at an early stage so that national recommendations on antenatal care and screening can be followed.
L00–99 (14)	**Skin**			
L00–08 (EA00-6Y)	**Skin infections** **Recurrence, transmission to others**	T – Until satisfactorily treated P – Consider for catering staff with recurrent problems	R, L – Based on nature and severity of infection	Cured with low likelihood of recurrence
L10–99 (EA80-EM0Z)	**Other skin diseases, e.g. eczema, dermatitis, psoriasis.** **Recurrence, sometimes occupational cause.**	T – Until investigated and satisfactorily treated	Case-by-case decision R – As appropriate if aggravated by heat, or substances at work	Stable, not impairing

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
M00–99 (15)	**Musculoskeletal**			
M10–23 (FA00-33)	**Osteoarthritis, other joint diseases and subsequent joint replacement.** **Pain and mobility limitation affecting normal or emergency duties. Possibility of infection or dislocation and limited life of replacement joints.**	T – Full recovery of function and specialist advice required before return to sea after hip or knee replacement P – For advanced and severe cases	R – Case-by-case assessment based on job requirements and history of condition. Consider emergency duties and evacuation from ~~ship~~ fishing vessel. Should meet general fitness requirements (appendix D).	Case-by-case assessment. Able to fully meet routine and emergency duty requirements with very low likelihood of worsening such that duties could not be undertaken
M24.4 (FA34.2)	**Recurrent instability of shoulder or knee joints** **Sudden limitation of mobility, with pain**	T – Until satisfactorily treated	R – Case-by-case assessment of occasional instability	Treated; very low* likelihood of recurrence
M54.5 (ME84.2)	**Back pain.** **Pain and mobility limitation affecting normal or emergency duties. Exacerbation of impairment.**	T – In acute stage P – If recurrent or incapacitating	Case-by-case assessment	Case-by-case assessment
Y83.4 Z97.1 (QB83) (QB51.9)	**Limb prosthesis.** **Mobility limitation affecting normal or emergency duties.**	P – If essential duties cannot be performed	R – If routine and emergency duties can be performed but thereare limitations on specific non-essential activities	If general fitness requirements are fully met (appendix C). Arrangementsfor fitting prosthesis in emergency must be confirmed.

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
	General			
R47, F80 (MA80) (6A01)	**Speech disorders** **Limitations to communication ability**	P – Incompatible with reliable performance of routine and emergency duties safely or effectively	R – If assistance with communication is needed to ensure reliable performance of routine and emergency duties safely and effectively. Specify assistance.	No impairment to essential speech communication
T78 Z88 (NF09) (QC44.2)	**Allergies (other than allergic dermatitis and asthma).** **Likelihood of recurrence and increasing severity of response.** **Reduced ability to perform duties.**	T – Until fully investigated by specialist P – If life-threatening response reasonably foreseeable	Case-by-case assessment of likelihood and severity of response, management of the condition and access to medical care R – Where response is impairingrather than life-threatening, and reasonable adjustments can be made to reduce likelihood of recurrence	Where response is impairing rather than life-threatening, and effects can be fully controlled by long-term non-steroidal self-medication or by lifestyle modifications that are practicable at sea with no safety-critical adverse effects
Z94 (QB63.Z)	**Transplants – Kidney, heart, lung, liver (for prosthetics, i.e. joints, limbs, lenses, hearing aids, heart valves, etc. see condition-specific sections).** **Possibility of rejection. Side effects of medication.**	T – Until effects of surgery and anti-rejection medication stable P – Case-by-case assessment, with specialist advice	R, L – Case-by-case assessment, with specialist advice	Not applicable

ICD-10 (ICD-11) ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **- expected to be temporary (T)** **- expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R)** **Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
Classify by condition	Progressive conditions, which are currently within criteria, e.g. Huntington's chorea (including family history) and keratoconus	T – Until investigated and treated if indicated P – Consider at pre-sea medical if likely to prevent completion or limit scope of training	Case-by-case assessment, with specialist advice. Such conditions are acceptable if harmful progression before next medical is judged unlikely.	Case-by-case assessment, with specialist advice. Such conditions are acceptable if harmful progression before next medical is judged unlikely.
Classify by condition	Conditions not specifically listed	T – Until investigation and treated if indicated P – If permanently impairing	Use analogy with related conditions as a guide. Consider likelihood of sudden incapacity, recurrence or progression and limitations on performing normal and emergency duties. If in doubt, obtain advice or consider restriction and referral to referee.	Use analogy with related conditions as a guide. Consider excess likelihood of sudden incapacity, of recurrence or progression and limitations on performing normal and emergency duties. If in doubt, obtain advice or consider restriction and referral to referee.

Notes:

* *Recurrence rates: Where the terms very low, low and moderate are used for the excess likelihood of a recurrence. These are essentially clinical judgements but, for some conditions, quantitative evidence on the likelihood of recurrence is available. Where this is available, e.g. for seizure and cardiac events, it may indicate the need for additional investigations to determine an individual's excess likelihood of a recurrence.*

Quantitative recurrence levels approximate to:

- *Very low: recurrence rate less than 2% per year.*
- *Low: recurrence rate 2% to 5% per year.*
- *Moderate: recurrence rate 5% to 20% per year.*

** *Asthma severity definitions:*

Childhood asthma:

- *Mild: Onset age >10, few or no hospitalizations, normal activities between episodes, controlled by inhaler therapy alone, remission by age 16, normal lung function.*

- *Moderate: Few hospitalizations, frequent use of reliever inhaler between episodes, interference with normal exercise activity, remission by age 16, normal lung function.*

- *Severe: Frequent episodes requiring treatment to be made more intensive, regular hospitalization, frequent oral or IV steroid use, lost schooling, abnormal lung function.*

Adult asthma:

Asthma may persist from childhood or start over the age of 16. There is a wide range of intrinsic and external causes for asthma developing in adult life. In late-entry recruits with a history of adult onset asthma, the role of specific allergens, including those causing occupational asthma, should be investigated. Less specific inducers such as cold, exercise and respiratory infection also need to be considered. All can affect fitness for work at sea.

- *Mild intermittent asthma: Infrequent episodes of mild wheezing occurring less than once every two weeks, readily and rapidly relieved by beta agonist inhaler.*

- *Mild asthma: Frequent episodes of wheezing requiring use of beta agonist inhaler or the introduction of a corticosteroid inhaler. Taking regular inhaled steroids (or steroid/long-acting beta agonists) may effectively eliminate symptoms and the need for use of beta agonist treatment.*

- *Exercise-induced asthma: Episodes of wheezing and breathlessness provoked by exertion, especially in the cold. Episodes may be effectively treated by inhaled steroids (or steroid/long-acting beta agonist) or other oral medication.*

- *Moderate asthma: Frequent episodes of wheezing despite regular use of inhaled steroid (or steroid/long-acting beta agonist) treatment requiring continued use of frequent beta agonist inhaler treatment or the addition of other medication, occasional requirement for oral steroids.*

- *Severe asthma: Frequent episodes of wheezing and breathlessness, frequent hospitalization, frequent use of oral steroid treatment.*

APPENDIX F

Suggested format for recording medical examinations of ~~seafarers~~ fishing vessel personnel

Name (last, first, middle): _____
Date of birth (day/month/year): ..../..../……
~~Sex~~ Gender: __ Male __ Female
Home address: _____
Method of confirmation of identity, e.g. Passport No./~~Seafarer's book~~ Seaman's record book No. or other relevant identity document No.: _____
Department (deck/engine/radio/food handling/other): _____
Routine and emergency duties (if known): _____
~~Type of ship (e.g. container, tanker, passenger): _____~~
~~Trade area~~ Area of operation/trade (e.g. ~~coastal~~ limited waters, ~~tropical, worldwide~~ unlimited waters): _____
Examinee's personal declaration
(Assistance should be offered by medical staff)
Have you ever had any of the following conditions?

Condition		**Yes**	**No**
1.	Eye/vision problem		
2.	High blood pressure		
3.	Heart/vascular disease		
4.	Heart surgery		
5.	Varicose veins/piles		
6.	Asthma/bronchitis		
7.	Blood disorder		
8.	Diabetes		
9.	Thyroid problem		
10.	Digestive disorder		
11.	Kidney problem		
12.	Skin problem		
13.	Allergies		
14.	Infectious/contagious diseases		
15.	Hernia		
16.	Genital disorder		
17.	Pregnancy		
18.	Sleep problem		
19.	Do you smoke, use alcohol or drugs, if so how much?		
20.	Operation/surgery		
21.	Epilepsy/seizures		

22.	Dizziness/fainting	

Condition		**Yes**	**No**
23.	Loss of consciousness		
24.	Psychiatric problems		
25.	Depression		
26.	Attempted suicide		
27.	Loss of memory		
28.	Balance problem		
29.	Severe headaches		
30.	Ear (hearing, tinnitus)/nose/throat problem		
31.	Restricted mobility		
32.	Back or joint problem		
33.	Amputation		
34.	Fractures/dislocations		

If you answered "yes" to any of the above questions, please give details:

Additional questions		**Yes**	**No**
35.	Have you ever been signed off as sick or repatriated from a ~~ship~~ vessel?		
36.	Have you ever been hospitalized?		
37.	Have you ever been declared unfit for sea duty?		
38.	Has your medical certificate ~~even~~ ever been restricted or revoked?		
39.	Are you aware that you have any medical problems, diseases or illnesses?		
40.	Do you feel healthy and fit to perform the duties of your designated position/occupation?		
41.	Do you feel healthy and fit to safely and effectively perform emergency duties?		
~~41~~ 42.	Are you allergic to any medication?		

Comments:

Additional questions **Yes No**

~~42~~ 43. Are you taking any non-prescription or prescription medications?

If yes, please list the medications taken, and the purpose(s) and dosage(s):

I hereby certify that the personal declaration above is a true statement to the best of my knowledge.

Signature of examinee: _____ Date (day/month/year):…./…./……

Witnessed by (signature): _____ Name (typed or printed): _____

I hereby authorize the release of all my previous medical records from any health professionals, health institutions and public authorities to Dr._____
(the approved medical practitioner).

Signature of examinee: _____ Date (day/month/year): ..../..../……..

Witnessed by (signature): _____ Name (typed or printed): _____

Date and contact details for previous medical examination (if known): _____

MEDICAL EXAMINATION

Sight

Use of glasses or contact lenses: Yes/No (if yes, specify which type and for what purpose)

Visual acuity

	Unaided			**Aided**	
	Right eye	**Left eye**	**Binocular**	**Right eye**	**Left eye**	**Binocular**
Distant						
Near						

Visual fields

	Normal	**Defective**

Right eye

Left eye

Colour vision

☐ Not tested ☐ Normal ☐ Doubtful ☐ Defective

Hearing

Pure tone and audiometry (threshold values in dB)

	500 Hz	**1,000 Hz**	**2,000 Hz**	**3,000 Hz**
Right ear				
Left ear				

Speech and whisper test (metres)

	Normal	**Whisper**
Right ear		
Left ear		

Clinical findings

Height: _____ (cm) Weight: _____ (kg)
Pulse rate: _____/(minute) Rhythm: _____
Blood pressure: Systolic: _____ (mm Hg) Diastolic: _____ (mm Hg)
Urinalysis: Glucose: _____ Protein: _____ Blood: _____

	Normal	**Abnormal**
Head		
Sinuses, nose, throat		
Mouth/teeth		
Ears (general)		
Tympanic membrane		
Eyes		
Ophthalmoscopy		
Pupils		
Eye movement		
Lungs and chest		
Breast examination		
Heart		
Skin		
Varicose veins		
Vascular (inc. pedal pulses)		

	Normal	Abnormal
Abdomen and viscera		
Hernia		
Anus (not rectal exam)		
G-U system		
Upper and lower extremities		
Spine (C/S, T/S and L/S)		
Neurologic (full/brief)		
Psychiatric		
General appearance		

Chest X-ray

☐ Not performed ☐ Performed on (day/month/year): ..../..../…….

Results:

Other diagnostic test(s) and result(s)

Test: Result:

Medical practitioner's comments and assessment of fitness, with reasons for any limitations:

Assessment of fitness for service at sea

On the basis of the examinee's personal declaration, my clinical examination and the diagnostic test results recorded above, I declare the examinee medically:

☐ Fit for lookout duty ☐ Not fit for lookout duty

	Deck service	Engine service	Fishing service	Catering service	Other services
Fit	☐	☐	☐	☐	
Unfit	☐	☐	☐	☐	

☐ Without restrictions ☐ With restrictions Visual aid required ☐ Yes ☐ No

Describe restrictions (e.g. specific position, type of ~~ship~~ fishing vessel, ~~trade~~ fishing area)

Medical certificate's date of expiration (day/month/year): _____/_____/_____
Date medical certificate issued (day/month/year): _____/_____/_____
Number of medical certificate: _____
Signature of medical practitioner: _____
Medical practitioner information (name, licence number, address):

_____

_____

APPENDIX G

Medical certificate for service at sea

The minimum requirements for medical certificates are specified in STCW-F Code, section ~~A-I/9~~ A-I/12, paragraph 7. These form a suitable framework for all ~~seafarer~~ fishing vessel personnel medical certificates. Certificates meeting the criteria will also meet the requirements of the ~~Maritime Labour Convention, 2006~~ Work in Fishing Convention, 2007 (No. 188). Only information directly relevant to the functional requirements of the ~~seafarer's~~ fishing vessel personnel's duties should be included. Details of any medical conditions identified or test results, other than those listed, should not be recorded on the certificate. It is recommended that the certificate is in a format which minimizes the likelihood of alteration of its contents or fraudulent copy.

1 **Authorizing authority** and the requirements under which the document is issued

2 **~~Seafarer~~ Fishing vessel personnel information**

2.1. Name: *(last, first, middle)*

2.2. Date of birth: *(day/month/year)*

2.3. Gender: *(male/female)*

2.4. Nationality:

3 **Declaration of the recognized medical practitioner**

3.1. Confirmation that identification documents were checked at the point of examination: *Yes/No*

3.2. Hearing meets the standards in STCW-F Code, section ~~A-I/9~~ A-I/12: *Yes/No/Not applicable*

3.3. Unaided hearing satisfactory? *Yes/No*

3.4. Visual acuity meets standards in STCW-F Code, section ~~A-I/9~~ A-I/12? *Yes/No*

3.5. Colour vision meets standards in STCW-F Code, section ~~A-I/9~~ A-I/12? *Yes/No* (testing only required every six years)

3.5.1. Date of last colour vision test:

3.6. Fit for lookout duties? *Yes/No*

3.7. No limitations or restrictions on fitness? *Yes/No*
If "no", specify limitations or restrictions:

3.8. Is the ~~seafarer~~ fishing vessel personnel free from any medical condition likely to be aggravated by service at sea or to render the ~~seafarer~~ fishing vessel personnel unfit for such service or to endanger the health of other persons on board? *Yes/No*

3.9. Date of examination: *(day/month/year)*

3.10. Expiry date of certificate: *(day/month/year)*

4 **Details of the issuing authority**

4.1. Official stamp (including name) of the issuing authority

4.2. Signature of the authorized person

5 ~~**Seafarer's**~~ **Fishing vessel personnel's signature** – *Confirming that the ~~seafarer~~ fishing vessel personnel has been informed of the content of the certificate and of the right to a review in accordance with paragraph 6 of section ~~A-I/9~~ A-I/12 of the STCW-F Code.*

6 The certificate should indicate that it is issued to meet the requirements of both the STCW-F Convention, ~~1978~~ 1995, as amended, and the ~~Maritime Labour Convention, 2006~~ Work in Fishing Convention, 2007 (No. 188).

APPENDIX H

Extract from the ~~Maritime Labour Convention, 2006~~ ILO Work in Fishing Convention, 2007 (No. 188)

[Article 10

1. No fishers shall work on board a fishing vessel without a valid medical certificate attesting to fitness to perform their duties.

2. The competent authority, after consultation, may grant exemptions from the application of paragraph 1 of this Article, taking into account the safety and health of fishers, size of the vessel, availability of medical assistance and evacuation, duration of the voyage, area of operation, and type of fishing operation.

3. The exemptions in paragraph 2 of this Article shall not apply to a fisher working on a fishing vessel of 24 metres in length and over or which normally remains at sea for more than three days. In urgent cases, the competent authority may permit a fisher to work on such a vessel for a period of a limited and specified duration until a medical certificate can be obtained, provided that the fisher is in possession of an expired medical certificate of a recent date.

Article 11

Each Member shall adopt laws, regulations or other measures providing for:

(a) the nature of medical examinations;

(b) the form and content of medical certificates;

(c) the issue of a medical certificate by a duly qualified medical practitioner or, in the case of a certificate solely concerning eyesight, by a person recognized by the competent authority as qualified to issue such a certificate; these persons shall enjoy full independence in exercising their professional judgement;

(d) the frequency of medical examinations and the period of validity of medical certificates;

(e) the right to a further examination by a second independent medical practitioner in the event that a person has been refused a certificate or has had limitations imposed on the work he or she may perform; and

(f) other relevant requirements.

Article 12

In addition to the requirements set out in Article 10 and Article 11, on a fishing vessel of 24 metres in length and over, or on a vessel which normally remains at sea for more than three days:

1. The medical certificate of a fisher shall state, at a minimum, that:

(a) the hearing and sight of the fisher concerned are satisfactory for the fisher's duties on the vessel; and

(b) the fisher is not suffering from any medical condition likely to be aggravated by service at sea or to render the fisher unfit for such service or to endanger the safety or health of other persons on board.

2. The medical certificate shall be valid for a maximum period of two years unless the fisher is under the age of 18, in which case the maximum period of validity shall be one year.

3. If the period of validity of a certificate expires in the course of a voyage, the certificate shall remain in force until the end of that voyage.]

APPENDIX I

Extract from the International Convention on Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel, 1995

"**Regulation I/12**
Medical standards

1 Each Party shall establish standards of medical fitness for fishing vessel personnel and procedures for the issue of a medical certificate in accordance with the provisions of this regulation and of section A-I/12 of the STCW-F Code.

2 Each Party shall ensure that those responsible for assessing the medical fitness of fishing vessel personnel are medical practitioners recognized by the Party for the purpose of fishing vessel personnel medical examinations, in accordance with the provisions of section A-I/12 of the STCW-F Code.

3 Every crew member holding a certificate issued under the provisions of the Convention, who is serving at sea, shall also hold a valid medical certificate issued in accordance with the provisions of this regulation and of section A-I/12 of the STCW-F Code.

4 Every candidate for certification shall:

.1 be not less than 16 years of age; or

.2 be not less than 15 years of age provided that the candidate is authorized by the competent authority in accordance with national laws and practice.*

.3 provide satisfactory proof of his or her identity; and

.4 meet the applicable medical fitness standards established by the Party.

5 Medical certificates shall remain valid for a maximum period of two years unless the crew member is under the age of 18, in which case the maximum period of validity shall be one year.

6 If the period of validity of a medical certificate expires in the course of a voyage, then the medical certificate shall continue in force until the next port of call where a medical practitioner recognized by the Party is available, provided that the period shall not exceed three months.

7 In urgent cases the Administration may permit a crew member to work without a valid medical certificate until the next port of call where a medical practitioner recognized by the Party is available, provided that:

.1 the period of permission does not exceed three months; and

.2 the crew member concerned is in possession of an expired medical certificate of recent date."

* Reference is made to article 9 of the ILO Work in Fishing Convention, 2007 (No.188).

APPENDIX J

Extract from the Standards of Training, Certification and Watchkeeping for Fishing Vessel Personnel (STCW-F) Code

*"***Section A-I/12**
Medical standards

1 Parties, when establishing standards of medical fitness for fishing vessel personnel as required by regulation I/12, shall adhere to the minimum in-service eyesight standards set out in table A-I/12 and take into account the criteria for physical and medical fitness set out in paragraph 2. They should also take into account the guidance given in section B-I/12 of this Code and [joint ILO/IMO Guidelines on the medical examination of fishing vessel personnel].

These standards may, to the extent determined by the Party without prejudice to the safety of the fishing vessel personnel or the fishing vessel, differentiate between those persons seeking to start a career at sea and those fishing vessel personnel already serving at sea and between different functions on board, bearing in mind the different duties of fishing vessel personnel. They shall also take into account any impairment or disease that will limit the ability of the fishing vessel personnel to effectively perform his/her duties during the validity period of the medical certificate.

2 The standards of physical and medical fitness established by the Party shall ensure that fishing vessel personnel satisfy the following criteria:

.1 have the physical capability, taking into account paragraph 5 below to fulfil all the requirements of the basic safety training as required by chapter III section A-III/1;

.2 demonstrate adequate hearing and speech to communicate effectively and detect any audible alarms;

.3 have no medical condition, disorder or impairment that will prevent the effective and safe conduct of their routine and emergency duties on board during the validity period of the medical certificate;

.4 are not suffering from any medical condition likely to be aggravated by service at sea or to render the fishing vessel personnel unfit for such service or to endanger the health and safety of other persons on board; and

.5 are not taking any medication that has side effects that will impair judgment, balance or any other requirements for effective and safe performance of routine and emergency duties on board.

3 Medical fitness examinations of fishing vessel personnel shall be conducted by appropriately qualified and experienced medical practitioners recognized by the Party.

4 Each Party shall establish provisions for recognizing medical practitioners. A register of recognized medical practitioners shall be maintained by the Party and made available to other Parties, companies and fishing vessel personnel on request.

5 Each Party shall provide guidance for the conduct of medical fitness examinations and issuing of medical certificates the guidance given in section B-I/12 of this Code and [joint ILO/IMO guidelines on the medical examination of fishing vessel personnel]. Each Party

shall determine the amount of discretion given to recognized medical practitioners on the application of the medical standards, bearing in mind the different duties of fishing vessel personnel, except that there shall not be discretion with respect to the minimum eyesight standards for distance vision aided, near/immediate vision and colour vision in table A-I/12 for fishing vessel personnel in the deck department required to undertake lookout duties. A Party may allow discretion on the application of these standards with regard to fishing vessel personnel in the engine department, on the condition that fishing vessel personnel's combined vision fulfils the requirements set out in table A-I/12.

6 Each Party shall establish processes and procedures to enable fishing vessel personnel who, after examination, do not meet the medical fitness standards or have had a limitation imposed on their ability to work, in particular with respect to time, field of work or operation area, to have their case reviewed in line with that Party's provisions for appeal.

7 The medical certificate provided for in regulation I/12, paragraph 3, shall include the following information at a minimum:

.1 Authorizing authority and the requirements under which the document is issued

.2 Fishing vessel personnel information

.1 Name: (last, first, middle)

.2 Date of birth: (day/month/year)

.3 Gender: (Male/Female)

.4 Nationality

.3 Declaration of the recognized medical practitioner

.1 Confirmation that identification documents were checked at the point of examination: Y/N

.2 Hearing meets the standards in section A-I/12? Y/N

.3 Unaided hearing satisfactory? Y/N

.4 Visual acuity meets standards in section A-I/12? Y/N

.5 Colour vision* meets standards in section A-I/12? Y/N

.1 Date of last colour vision test

.6 Fit for lookout duties? Y/N

.7 No limitations or restrictions on fitness? Y/N

If "N", specify limitations or restrictions

* Note: Colour vision assessment only needs to be conducted every six years.

.8 Is the fishing vessel personnel free from any medical condition likely to be aggravated by service at sea or to render the fishing vessel personnel unfit for such service or to endanger the health of other persons on board?: Y/N

.9 Date of examination: (day/month/year)

.10 Expiry date of certificate: (day/month/year)

.4 Details of the issuing authority

.1 Official stamp (including name) of the issuing authority

.2 Signature of the authorized person

.5 Fishing vessel personnel's signature – confirming that the fishing vessel personnel has been informed of the content of the certificate and of the right to a review in accordance with paragraph 6 of section A-I/12

8 Medical certificates shall be in the official language of the issuing country. If the language used is not English, the text shall include a translation into that language.

Table A-I/12

Minimum in-service eyesight standards for fishing vessel personnel

STCW-F Convention regulation	**Category of fishing vessel personnel**	**Distance vision aided[1]**		**Near/immediate vision**	**Colour Vision[3]**	**Visual Fields[4]**	**Night Blindness[4]**	**Diplopia (double vision)[4]**
		One eye	Other eye	Both eyes together, aided or unaided				
II/1 II/2 II/3 II/4 II/7	Skippers, deck officers and fishing vessel personnel forming part of a navigational watch	0.5[2]	0.5	Vision required for ship's navigation (e.g. chart and nautical publication reference, use of bridge instrumentation and equipment, and identification of aids to navigation)	See Note 6	Normal Visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident
II/5 II/5-1 II/5-2 II/7	All engineer officers and other fishing vessel personnel forming part of an engine-room watch	0.4	0.4 (see Note 5)	Vision required to read instruments in close proximity, to operate equipment, and to identify systems/ components as necessary	See Note 7	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident
II/6 II/8	GMDSS Radio operators	0.4	0.4	Vision required to read instruments in close proximity, to operate equipment and to identify systems/ components as necessary	See Note 7	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident

Notes:

[1] Values given in Snellen decimal notation.

[2] A value of at least 0.7 in one eye is recommended to reduce the risk of undetected underlying eye disease.

[3] As defined in the *International Recommendations for Colour Vision Requirements for Transport* by the Commission Internationale de l'Eclairage (CIE-143-2001 including any subsequent versions).

[4] Subject to assessment by a clinical vision specialist where indicated by initial examination findings.

[5] Engine department personnel shall have a combined eyesight vision of at least 0.4.

[6] CIE colour vision standard 1 or 2. Other equivalent confirmatory test methods currently recognized by the Administration may continue to be used.

[7] CIE colour vision standard 1, 2 or 3. Other equivalent confirmatory test methods currently recognized by the Administration may continue to be used."

[APPENDIX K

Training of authorized medical practitioners

1 The appropriate training and competency of recognized medical practitioners who perform medical examinations of fishing vessel personnel is essential to ensure that they perform a high-quality medical examination and are aware of specific aspects of work within the fishing industry.

2 The medical practitioners should be experienced in general and occupational medicine and be aware of fishing vessel personnel's occupational health risks and prevention. They should have knowledge of the living and working conditions on board fishing vessels and the job demands on board and in the harbour in so far as they relate to the effects of health.

3 Competent authorities should ensure that authorized medical practitioners undertake initial and continuing training in the specific occupational health risks for fishing vessel personnel and the notification of diseases and injuries that may be identified as part of the medical examination. Medical practitioners should also be familiar with the work involved in unloading the catch and work in port.

4 As the medical practitioners may not be trained in occupational health and safety and accident prevention in fishing it is recommend that the competent authorities develop a training programme in order to comply with the requirements including initial training when first authorized and further training to ensure ongoing knowledge and competency.]

[APPENDIX L

A monitoring programme on the health of fishing vessel personnel and occupational risk

1 Medical practitioners performing medical examinations of fishing vessel personnel should have a clear understanding of the special requirements of the life of a fishing vessel personnel and receive appropriate initial and further training. The professional judgement of the practitioners is often critical to the lives of fishing vessel personnel.

2 According to the Convention C188 and the ILO Handbook for Improving living and working conditions on board fishing vessels 2010, article 33, competent authorities are required to establish systematic monitoring of the health status of fishing vessel personnel and their health risks in the working environment. This is in addition to the two-yearly medical examination.

3 Many land-based occupations have implemented such monitoring schemes for many years but currently most countries do not monitor the health status and the occupational risk indicators for fishing vessel personnel.

4 The intention of a more detailed clinical health examination is to focus on occupational safety and health at sea, including bullying and well-being. Monitoring should include risk indicators related to diet, smoking, drug and alcohol abuse, exercise and the safety and psychosocial environments.

5 A monitoring programme should provide the required monitoring and provide knowledge of and trends in the health of fishing vessel personnel, their work efficiency and job retention. Such a programme should help to develop and strengthen the competence and competitiveness of the fishing sector.

Purpose

6 To establish monitoring of all fishing vessel personnel's health risk indicators and working environment to be used to revise and establish optimal working conditions.

7 To highlight the context and development of occupational health and health risk factors in relation to the spectrum of diseases seen in fishing vessel personnel and their job retention.

8 To provide systematic and accessible up-to-date knowledge of the working environment and the fishing vessel personnel's health for use in the work to improve the working environment on fishing vessels.

Design

9 The programme is designed to monitor the health and safety of all fishing vessel personnel at four to five-year intervals. In addition to a clinical examination, fishing vessel personnel should complete a survey on their occupational health risks in fishing operations during the consultation.

Methods

Clinical examination

10 The content of the clinical examination is similar to the fishing vessel personnel medical examination in order to:

.1 ascertain the health of the fishing vessel personnel;

.2 identify any medical conditions;

.3 determine whether the fishing vessel personnel is suited to the psychological and physical demands of the job;

.4 ensure the safety of the rest of the crew;

.5 ensure safety of navigation; and

.6 ensure the occupational health and safety on board.

Questionnaire

11 A validated questionnaire should be used, and specific questions, including demographic information, selected in specific groups, in order to ensure valid response rates. These may include:

.1 safety culture on board;

.2 negative workplace experiences;

.3 noise, vibration and wet work;

.4 ergonomic loads and claims;

.5 indoor climate on board;

.6 exposure to chemicals during work on board;

.7 sleep on board;

.8 health, including dental health;

.9 tobacco and alcohol on board and at home;

.10 [food and drink];

.11 [safety culture on board and prevention of occupational risks];

.12 [working time and hours of rest];

.13 [healthcare on board];

.14 [frequency and quality of emergency drills conducted];

.15 [bullying and harassment, including sexual assault and sexual harassment]; and

.16 [drug abuse, diet, environmental exposure to cold, sun, fatigue, work schedule, sources of stress, welfare facilities].

Data processing

12 Data should remain anonymous and be handled confidentially in line with local regulations. All data should be stored in a secure database for the purpose of use in subsequent studies.

Ethical requirements

13 As the study involves the taking of blood samples, the local ethical committees should be asked to evaluate the project. Guidelines for best research practice should be followed. The anonymity of the participants should be ensured in every way and this be clear in the project description and the schedule.

Development of job exposure matrices at sea

14 In the field of occupational and environmental medicine research, increasing demands are being made for well-designed, epidemiological studies to also estimate reliable expressions of exposure.

15 For example, when assessing possible causes of hearing loss and tinnitus, it is key to estimate the exposure of the fishing vessel personnel to noise over several years.

16 Such methodology is developing rapidly in occupational health and safety research in shore-based occupations but has not previously been used at sea. This is despite the fact that the method seems particularly applicable to the working environments on ships, as the design of many different types of ships is very similar.

17 There is also the potential opportunity for a productive international collaboration on current descriptions of exposures within the fishing industry.]