

6.29 Fishing methods and fishing gear

6.29.1 Subject to needs, training in fishing methods should be readily available for skippers, officers in charge of a navigational watch and skilled fishing vessel personnel engaged in all classes of fishing vessels. However, in determining the appropriate training, due consideration should be given to the difficulties associated with prescribing a level of training applicable to all classes of fishing operations.

6.29.2 Fishing is subject to widely different methods. These methods are related to the fish species being taken, the geographical area of operations and the size of fishing vessel being used. It should be noted that considerable variations in the operational methods used often exist within a fishery.

6.29.3 The extent of training required can be determined by whether a new fishery is being developed or whether the fishery has a long history of exploitation. Competition in the long-established fisheries usually ensures that the level of overall skill of skippers and officers in charge of a navigational watch engaged in these fisheries is well developed.

6.29.4 Training in fishing methods not usually associated with local fishing operations should not be a requirement.

6.29.5 Examinations for certificates of competency should include only factors associated with ensuring that the fishing operation in which the candidate is engaged is safe.

6.29.6 Training for a particular fishing method should include:

- .1 fishing gear construction;
- .2 materials;
- .3 fishing techniques for particular fishing gear;
- .4 fishing gear operation and resolution of problems;
- .5 location of fish;
- .6 shooting and retrieval of fishing gear;
- .7 taking catch on board;
- .8 environmental considerations and principles of resource management;
- .9 safe working practices and emergency procedures.

6.29.7 More detailed guidance on fishing methods and fishing gear is set out in appendix 34.

6.30 Handling, stowage and care of the catch

6.30.1 All fishing vessel personnel associated with fishing operations should be trained so as to ensure they have a sound knowledge of the proper

handling, care and stowage of the catch, particularly where the catch is ultimately intended for human consumption. Knowledge required includes:

- .1 deck hygiene;
- .2 preparation of fish holds;
- .3 preparation of the catch for stowage;
- .4 catch stowage systems including ship stability considerations;
- .5 maintenance of the quality of the catch (icing, freezing, boxing).

6.30.2 More detailed guidance is set out in appendix 35.

6.31 Maintenance of fishing equipment

6.31.1 Training should be given to all fishing vessel personnel in the understanding and knowledge of all fishing equipment they are likely to use, including how to make it and how to maintain it. More detailed guidance is set out in appendix 36.

6.32 Fishing vessel operations in port

6.32.1 Skippers and officers in charge of a navigational watch of fishing vessels should have adequate knowledge of:

- .1 the essential actions which need to be taken before arriving and sailing from port;
- .2 the sources from which information can be obtained regarding port rules and regulations as well as customs and immigration procedures and the sources from which essential services for repairs, maintenance and supplies can be obtained, when operating in unlimited waters;
- .3 the rules and regulations of the ports at which they call, when operating in national or limited waters;
- .4 factors affecting satisfactory discharge of the catch.

6.32.2 More detailed guidance on port operations is set out in appendix 37.

6.33 FAO Code of Conduct for Responsible Fisheries

6.33.1 Fishing vessel personnel should have an adequate knowledge of the FAO Code of Conduct for Responsible Fisheries, which should include:

- .1 responsible harvesting practices;
- .2 responsible fishing gear/selectivity;
- .3 energy optimization;
- .4 the management partnership;

- .5 duties of all States;
- .6 duties of flag States;
- .7 port State duties.

Chapter 7

Section 1 – Functional skill training option

7.1.1 Introduction

7.1.1.1 The functional skill training option is included in this Document to provide guidance to national Administrations in the use of skills-based training and assessment arrangements in conjunction with the established systems for determining the competence of fishing vessel personnel.

7.1.1.2 The skills-based training system focuses upon the philosophy that the workplace is considered to be an efficient learning environment.

7.1.1.3 The system also known as the competency or skills-based training system involves different approaches to curricula, methods of teaching, assessment and certification to those traditionally used. It is concerned with outcomes rather than inputs – for example, what a person can do, rather than how much time they spend in training. It also acknowledges that people learn at different rates. Therefore, learners progress through the system as they acquire the appropriate operational skills.

7.1.1.4 The functional skills approach to training differs further from the traditional academic approach in that it is focused upon the ability of a person to perform skill tasks and the practical application of underpinning knowledge in a range of variable operational situations. This is in contrast to the concept of measuring, through written responses, the retention of subject matter at the conclusion of a period of intense training. Competency is determined when learners can prove their ability to perform a pre-determined range of skills or functions to an agreed standard.

7.1.2 Advantages of the functional skills training option

7.1.2.1 The use of the system's structured training arrangements enables maximum advantage to be gained from meeting mandatory qualifying sea service requirements.

7.1.2.2 Incorporating practical skill assessments on actual operating equipment keeps the assessment requirements aligned with operating needs.

7.1.2.3 Having a predetermined listing of functional skill requirements, learners are aware of the skills which have to be achieved in order to be deemed competent and can, therefore, utilize any opportunities to develop the required skills.

7.1.2.4 The system also permits candidates for certification who have fulfilled their sea service requirements to be assessed and deemed competent regardless of where or how their functional skills have been acquired.

7.1.2.5 The use of workplace assessment and verification processes gives a very comprehensive assessment of the competence of the candidates.

7.1.3 Description of functional skills training system

7.1.3.1 The application of the functional skills system involves:

- .1 the identification of competency areas within an occupational category;
- .2 the identification of the skill areas or units of competency associated with a competency area;
- .3 the identification of elements or functional skills which are considered essential for a particular skill area;
- .4 the identification of standards or performance criteria which have to be attained in order to be deemed competent in a functional skill;
- .5 the identification by the Administration of the necessary knowledge and understanding required to apply the system;
- .6 the establishment of an appropriate assessment system;
- .7 the accrediting of trainers and assessors; and
- .8 the establishment of adequate record keeping arrangements for recording functional skill attainments.

7.1.3.2 The functional skill component is the basic unit of the competency standards structure and is defined as the knowledge or a skill that the trainee can demonstrate by undertaking the task or by answering oral or written questions. A competency unit is made up of several functional skill components. A number of competency units form a competency area which is more readily recognized as a syllabus. The structure is shown in figure 7.1.3.2.1.

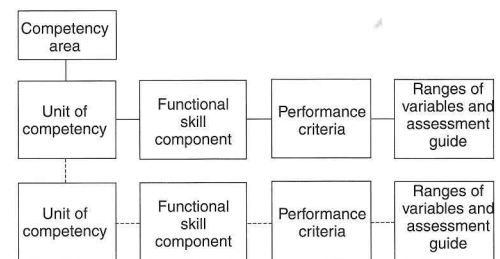


Figure 7.1.3.2.1

An example of how these components of the structure are linked together is given in figure 7.1.3.2.2 with an example derived from the matrix in 7.2 and 7.3.

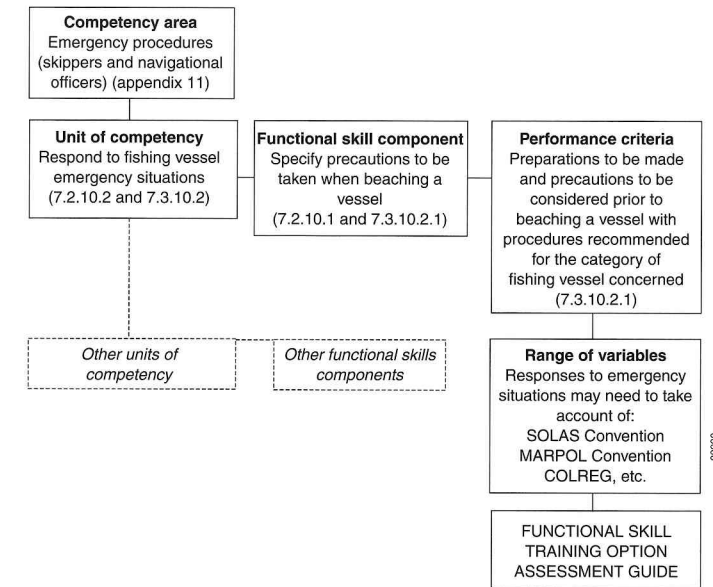


Figure 7.1.3.2.2

7.1.4 Training and assessment

7.1.4.1 Training

The training arrangements of the functional training system should incorporate:

- .1 the use of an agreed curriculum or structured training plan which identifies the competency areas to be covered. (It is important for learners to know the skills and standards which need to be attained in their progress towards competency. A training record book incorporating the skill requirements may be utilized for this purpose.);
- .2 the delivery of a pre-determined plan of training using actual operating equipment; and
- .3 a system whereby, skippers or senior officers, as appropriate, being satisfied that the candidate has achieved the specified levels of competency should sign off the appropriate section/s

of the training record book prior to assessment by the competent shore-based authority.

7.1.4.2 Assessment

7.1.4.2.1 Assessment practices and principles should be effective, efficient and be an integral part of the teaching and learning process. They should not dominate the teaching and learning experience.

7.1.4.2.2 Formative assessment arrangements include progressive assessment processes to gauge the progress of learners towards being competent and to collect evidence for presentation at a final review. The progressive assessment of candidates for their certificates of competency under actual operating conditions will enable them to provide proof of their practical skills in a range of variable conditions. In addition, provision should be made to assess the learner's previously acquired skills.

7.1.4.2.3 Provision should be made for the monitoring of training and the verification of progressive assessments and supporting evidence. The progressive development of an evidence portfolio, in conjunction with the use of the training record book, in order to authenticate the candidate's work and to validate the assessments, is recommended.

7.1.4.2.4 Formative assessment arrangements should also include arrangements for current competencies assessments - i.e., the collection of evidence for the competency assessment of candidates who have fulfilled sea-service commitments.

7.1.4.2.5 Summative or final assessments involve a review of formative assessment outcomes and supporting evidence. In addition, oral examinations, and if deemed necessary by the quality of evidence provided, practical examinations relating to the subject matter may be required.

7.1.4.2.6 The final phase of summative assessment should include the participation of an examiner appointed by the Administration concerned.

7.1.4.2.7 The recommended assessment format for the functional skill training option is the use of "formative" and "summative" assessment arrangements.

7.1.4.2.8 The Administration should approve and monitor functional skills training systems and take responsibility for the assessment and verification processes involved.

7.1.4.2.9 In the matrix in 7.2, the functional skills are described as learning outcomes. This describes the activities a candidate is required to undertake in order to demonstrate his competence. This means that the functional skills statements are preceded by a verb. Therefore:

- .1 *identify* within this context means to answer simple questions or undertake simple tasks to demonstrate the acquired skills or underpinning knowledge;

- .2 *specify* means to provide a more comprehensive answer;
- .3 *apply* means to use information or skills in the proper context;
- .4 *evidence portfolio* means a compilation of materials demonstrating the successful completion of specified learning tasks;
- .5 *assessor* means a person in direct contact with the candidate, who can judge if the knowledge, proficiency and understanding is sufficient to demonstrate his competence; and
- .6 *equipment* includes fishing gear, electronic navigational aids, radiocommunications, engines, winches and machines.

7.1.5 Alignment of the functional skill training option with the 1995 STCW-F Convention

7.1.5.1 Section 2 of chapter 7 incorporates a matrix which identifies the competency areas, the units of competency which make up the competency area, their related elements or functional skill components and the applicability of the functional skills to the various levels of fishing vessel personnel. As far as possible the order of listing follows the minimum knowledge requirements listed in the STCW-F Convention. However, it has been necessary, in some instances, to change that order so as to allow for the natural progression of skill components from the least to the highest.

7.1.5.2 The matrix indicates mandatory requirements for fishing vessels 24 m in length and over provided in chapter II of the annex to the STCW-F Convention. When referring to this part of the matrix, consideration should be given to regulation 1/2 which provides:

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 and the requirement of the use of English language to personnel serving on board a fishing vessel of less than 45 m 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.

Further, taking into consideration the differing practical and theoretical knowledge requirements of the STCW-F Convention for skippers and watchkeeping officers in certain competency areas, additional competency units have been included to enable the application of the appropriate criteria for evaluating competence in the levels concerned.

7.1.5.3 The minimum knowledge requirements specified by the regulations and appendices of chapter 2 of the STCW-F Convention are reflected in chapter 5 of this Document. These knowledge requirements have been translated into functional skill outcomes and have been listed in section 3 of this chapter under the heading "Fishing vessel personnel functional skill performance criteria" (items 7.3.1 to 7.3.18). These are structured to include the competency area, competency unit, functional skill component, criteria for evaluating competence, assessment guide and a possible range of variables all in one format. This is as indicated in the structural diagram included in paragraph 7.1.3.2. above.

7.1.5.4 It should be borne in mind that the criteria for evaluating competence in the relevant functional skills should be in accordance with the knowledge requirements of the STCW-F Convention.

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Section 2 – Functional skill/knowledge requirements relating to the 1995 STCW-F Convention

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Section 2
Functional skill/knowledge requirements relating to the 1995 STCW-F Convention
Matrix of applicable competency units and associated functional skill components

7.2.1 Competency area: Navigation and position determination	Competency units	Fishing vessels less than 12 m		Fishing vessels 12-24 m		Fishing vessels 24 m and over											
		Limited waters		Unlimited waters		All vessels	Engineer officer	Commu- nications	Skilled fishers	Fishing vessel personnel							
		Nav/WK*	Skipper	Nav/WK*	Skipper						Nav/WK*	Skipper					
.1 Unit: Voyage planning and navigation for all conditions Functional skill components: .1 plan track in areas affected by tides and currents .2 plan track in restricted waters .3 plan track in restricted visibility .4 where applicable, plan track in traffic separation schemes .5 where applicable, plan track in ice .6 determine ocean tracks	Skipper			Nav/WK*	Skipper												
	R		R		R	M											
	R		R		R	M											
	R		R		R	M											
	R		R		R	M											
	R		R		R	M											

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.1 Competency area: Navigation and position determination (cont.)	Fishing vessels less than 12 m	Fishing vessels 12–24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12–24 m		Fishing vessels 24 m and over		Fishing vessels 12–24 m		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Competency units	Skipper												
.2 Unit: Apply celestial body observation for position fixing and navigation Functional skill components: .1 use sextant .2 complete sight reduction .3 obtain and plot position lines	Skipper												
.3 Unit: Use terrestrial observation for position fixing and coastal navigation Functional skill components: .1 identify navigational hazards .2 use navigational aids, clearing marks and transit bearings to safely navigate hazards .3 read and interpret marine charts	Skipper												

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.1 Competency area: Navigation and position determination (cont.)	Fishing vessels less than 12 m	Fishing vessels 12–24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12–24 m		Fishing vessels 24 m and over		Fishing vessels 12–24 m		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Competency units	Skipper												
.4 obtain and plot position lines to determine vessel's position .5 apply dead reckoning procedures to determine vessel's position .6 use notices to mariners and other publications to assess accuracy of positions	Skipper												
.4 Unit: Use electronic navigational aids for position fixing and navigation Functional skill components: .1 operate electronic navigational aids .2 determine vessel's position with electronic navigational aids	Skipper												

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.2 Competency area: Watchkeeping	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		Fishing vessels 24 m and over		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Competency units Unit: Apply International Regulations for Preventing Collisions at Sea to fishing vessel operations Functional skill components: .1 apply steering and sailing rules .2 apply light and shape regulations .3 apply sound and light signal requirements	R		R		M		M						
	R		R		M		M				R		
	R		R		M		M				R		
Unit: Observe basic principles for keeping a navigational watch Functional skill components: .1 plan a navigational watch .2 maintain a navigational watch .3 maintain an anchor watch	R												
	R		R		M		M						
	R		R		M		M						

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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Section 2

7.2.3 Competency area: Radar navigation	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		Fishing vessels 24 m and over		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Unit: Operate radar Functional skill components: .1 identify factors affecting performance and accuracy .2 set up radar and maintain displays .3 detect misrepresentation of information, false echoes, sea return etc. .4 establish the range and bearing of a radar target .5 identify critical echoes													
	R		R		M		M						
	R		R		M		M						
	R		R		M		M						
	R		R		M		M						
Unit: Use radar for collision avoidance Functional skill components: .1 establish the course and speed of other ships .2 determine the time and distance of closest approach of crossing, meeting, or overtaking ships													
	R		R		M		M						
	R		R		M		M						

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.3 Competency area: Radar navigation (cont.)	Fishing vessels less than 12 m	Fishing vessels 12–24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
					Nav/WK*	Skipper	Nav/WK*	Skipper				
.3 detect course and speed changes of other ships			R	M	M	M	M					
.4 identify the effect of changes in own vessel's course or speed or both			R	M	M	M	M					
.5 apply the International Regulations for Preventing Collisions at Sea			R	M	M	M	M					

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.4 Competency area: Magnetic and gyro compasses	Fishing vessels less than 12 m	Fishing vessels 12–24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
					Nav/WK*	Skipper	Nav/WK*	Skipper				
.1 Unit: Use compass Functional skill components:												
.1 Steer a compass course	R	R	R	M	M	M	M			R		
.2 maintain a compass	R	R	R	M	M	M	M			R		
.2 Unit: Determine and apply compass errors Functional skill components:												
.1 determine and apply compass error using terrestrial observation	R	R	R	M	M	M	M					
.2 determine and apply compass error using celestial observation	R	R	R	M	M	M	M					

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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Section 2

7.2.5 Competency area: Meteorology and oceanography	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
					Nav/WK*	Skipper	Nav/WK*	Skipper				
.1 Unit: Obtain and apply meteorological information Functional skill components: .1 identify weather conditions liable to endanger the vessel .2 apply available meteorological information .3 use shipborne meteorological instruments .4 identify characteristics of various systems	R	R	R	M	M	M	M	M				
	R	R	R	R	R	M	M	M				
				M	M	M	M	M				
				M	M	M	M	M				
.2 Unit: Obtain and apply oceanographic information Functional skill components: .1 use appropriate navigational publications on tides and currents .2 calculate times and heights of high and low water and estimate the direction and rate of tidal streams	R	R	R	M	M	M	M	M				
	R	R	R	R	R	M	M	M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.6 Competency area: Fishing vessel manoeuvring and handling	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
					Nav/WK*	Skipper	Nav/WK*	Skipper				
.1 Unit: Identify techniques for manoeuvring and handling fishing vessels .1 identify requirements for berthing, unberthing and manoeuvring alongside other vessels at sea .2 identify requirements for manoeuvring during fishing operations .3 identify the effects of wind, tide and current on ship handling .4 identify requirements for manoeuvring in shallow waters .5 identify major considera- tions for managing a fishing vessel in heavy weather .6 identify requirements for rescuing persons in distress and assisting vessels in distress	R	R	R	M	M	M	M	M				
	R	R	R	M	M	M	M	M				
				M	M	M	M	M				
				M	M	M	M	M				
				M	M	M	M	M				
				M	M	M	M	M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

7.2.6 Competency area: Fishing vessel manoeuvring and handling (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 12-24 m		Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
		Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper				
Competency units	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
.7 identify requirements for towing and being towed	R	R	R	M	M	M	M	M	M				
.8 identify vessel handling requirements for man overboard procedures	R	R	R	M	M	M	M	M	M				
.2 Unit: Manoeuvre and handle fishing vessels in all conditions													
.1 berth, unberth and anchor vessel under various conditions of wind and tide	R	R	R	M	M	M	M	M	M				
.2 manoeuvre vessel in shallow water	R	R	R	R	M	R	M	R	M				
.3 manage and handle fishing vessel in heavy weather	R	R	R	R	M	R	M	R	M				
.4 manoeuvre fishing vessel during fishing operations	R	R	R	R	M	R	M	R	M				
.5 identify precautions to be taken in manoeuvring for launching boats or liferafts in bad weather	R	R	R	R	M	R	M	R	M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

7.2.6 Competency area: Fishing vessel manoeuvring and handling (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 12-24 m		Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
		Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper				
Competency units	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
.6 identify vessel handling requirements associated with taking on board survivors from lifeboats or liferafts	R	R	R	R	M	M	M	R	M				
.7 where applicable, identify practical measures to be taken when navigating in ice or conditions of ice accretion	R	R	R	R	M	M	M	M	M				
.8 use and manoeuvre in traffic separation schemes	R	R	R	R	M	M	M	R	M				
.9 navigate at an appropriate speed to avoid damage caused by own vessel's bow or stern wave	R	R	R	R	M	M	M	R	M				
.10 apply procedures for transferring fish to other vessels at sea						M		R	M				
.11 follow procedures for refuelling at sea								R	M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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Section 2

7.2.7 Competency area: Fishing vessel construction and stability	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels			
		Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Commu- nications	Skilled fishers	Fishing vessel personnel
				Nav/WK*	Skipper	Nav/WK*	Skipper				
.1. Unit: Apply vessel principal structural member description and function to fishing vessel operations Functional skill components: .1. identify the principal structural members of a fishing vessel .2. identify the proper names of the various parts of a fishing vessel .3. identify damage control techniques	Skipper			Nav/WK*	Skipper	Nav/WK*	Skipper				
	R	R	M	M	M	M	M				
	R	R	M	M	M	M	M				
.2. Unit: Maintain vessel stability Functional skill components: .1. use stability data, stability and trim tables and pre-calculated operating conditions .2. identify the effects of free surface and ice accretion, where applicable	Skipper			Nav/WK*	Skipper	Nav/WK*	Skipper				
	R	R	M	M	M	M	M				
	R	R	R	R	R	R	R				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

Chapter 7
Section 2

7.2.7 Competency area: Fishing vessel construction and stability (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels			
		Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Commu- nications	Skilled fishers	Fishing vessel personnel
				Nav/WK*	Skipper	Nav/WK*	Skipper				
.3. identify the effects of water on deck .4. identify the significance of weathering and watertight integrity .5. apply theories and factors affecting trim and stability and measures necessary to preserve trim and stability	Skipper			Nav/WK* <td>Skipper <td>Nav/WK* <td>Skipper <td></td> <td></td> <td></td> <td></td> </td></td></td>	Skipper <td>Nav/WK* <td>Skipper <td></td> <td></td> <td></td> <td></td> </td></td>	Nav/WK* <td>Skipper <td></td> <td></td> <td></td> <td></td> </td>	Skipper <td></td> <td></td> <td></td> <td></td>				
	R	R	R	R	R	R	R				
	R	R	R	R	R	R	R	M			
.3. Unit: Catch handling and stowage Functional skill components: .1. identify the effect upon the vessel of catch handling and stowage factors .2. stow and secure catch and fishing gear on board vessels. .3. supervise loading and discharging	Skipper			Nav/WK* <td>Skipper <td>Nav/WK* <td>Skipper <td></td> <td></td> <td></td> <td></td> </td></td></td>	Skipper <td>Nav/WK* <td>Skipper <td></td> <td></td> <td></td> <td></td> </td></td>	Nav/WK* <td>Skipper <td></td> <td></td> <td></td> <td></td> </td>	Skipper <td></td> <td></td> <td></td> <td></td>				
	R	R	M	M	M	M	M				
	R	R	M	M	M	M	M		R		

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.8 Competency area: Fishing vessel power plants	Fishing vessels less than 12 m	Fishing vessels 12–24 m				Fishing vessels 24 m and over				All vessels						
		Fishing vessels 12–24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		Fishing vessels 12–24 m		Fishing vessels 24 m and over		All vessels		
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communications	Skilled fishers	Fishing vessel personnel	
Competency units .1 Unit: Operate and maintain fishing vessel power plants Functional skill components: .1 identify operating principles of marine power plants in fishing vessels .2 operate and maintain outboard motors .3 operate and maintain, as appropriate, marine diesel engines, marine steam propulsion plant or marine gas turbines .2 Unit: Operate and maintain fishing vessel auxiliary machinery Functional skill components: .1 operate and maintain fishing vessel electrical and control systems .2 operate and maintain pumping systems	R		R		R		R				M					

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.8 Competency area: Fishing vessel power plants (cont.)	Fishing vessels less than 12 m	Fishing vessels 12–24 m				Fishing vessels 24 m and over				All vessels						
		Fishing vessels 12–24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		Fishing vessels 12–24 m		Fishing vessels 24 m and over		All vessels		
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communications	Skilled fishers	Fishing vessel personnel	
Competency units .3 operate and maintain steering systems .4 operate and maintain refrigeration systems .5 operate and maintain hydraulic systems .6 operate and maintain catch handling equipment and deck machinery .7 detect machinery malfunction, locate faults and take action to prevent damage .8 apply safe maintenance and repair procedures																

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.8 Competency area: Fishing vessel power plants (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Commu- nications	Skilled fishers	Fishing vessel personnel
					Nav/WK*	Skipper	Nav/WK*	Skipper				
.3 Competency units Unit: Apply theoretical engineering principles to fishing vessel systems operation Functional skill components: .1 identify marine engineering terms applicable to fishing vessel operating systems .2 apply theoretical fault finding outcomes to maintain fishing vessel operating systems .3 apply safe working practices												
								M				
									M			
.4 Unit: Observe basic principles for keeping an engineering watch .1 plan an engineering watch .2 apply specified engineering watchkeeping arrangements												
									R			

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.9 Competency area: Fire prevention and fire fighting	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Commu- nications	Skilled fishers	Fishing vessel personnel
					Nav/WK*	Skipper	Nav/WK*	Skipper				
.1 Unit: Apply fire prevention and fire-fighting techniques Functional skill components: .1 identify classes and chemistry of fire .2 apply fire safety procedures .3 use portable and fixed fire-fighting equipment .4 identify provisions concerning fire-fighting equipment .5 organize fire drills												
	M		M		M		M		M			M
	M		M		M		M		M			M
	M		M		M		M		M			M
	R	R	R		M		M		M			
	R	R		M		M		M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.10 Competency area: Emergency procedures	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Limited waters	Unlimited waters	Limited waters	Unlimited waters	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Competency units													
.1 Unit: Respond to emergency situations involving fishing vessel personnel Functional skill components: .1 follow emergency procedures specified in the vessel's contingency plans .2 identify relevant emergency situation duties and responsibilities .3 identify appropriate action to be taken following a fire or collision .4 indicate procedures to be followed in abandoning the fishing vessel .5 indicate action to be taken in rescuing persons .6 identify man overboard procedures	M		M	M	M	M	M	M	M	M	M	M	M

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.10 Competency area: Emergency procedures (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels				
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		All vessels		
		Nav/WK*	Skipper	Limited waters	Unlimited waters	Limited waters	Unlimited waters	Limited waters	Unlimited waters	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers
Competency units														
.2 Unit: Respond to fishing vessel emergency situations Functional skill components: .1 specify precautions to be taken when beaching a vessel .2 identify actions to be taken prior to, and after, grounding .3 specify action to be taken when the gear becomes fast to the ground or other obstructions .4 identify procedures for floating a grounded vessel, with and without assistance .5 indicate action to be taken following a collision .6 follow procedures for the temporary plugging of leaks	R		R	R	R	R	R	R	R	R	R	R	R	R

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

7.2.10 Competency area: Emergency procedures (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Limited waters	Unlimited waters	Engineer officer	Communica-tions	Skilled fishers	Fishing vessel personnel
Competency units	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communica-tions	Skilled fishers	Fishing vessel personnel
		R	R	R	R	M	M	R	M				
		R	R	R	R	R	M	R	M				
.7	prepare contingency plans for the protection and safety of fishing vessel personnel in emergencies	R	R	R	R	M	R	M					
.8	identify procedures for limiting damage and salvaging the vessel following a fire or explosion	R	R	R	R	M	R	M					
.9	specify abandon ship procedures	R	R	R	R	M	R	M					
.10	specify emergency steering arrangements	R	R	R	R	M	R	M	M				
.3	Unit: Provide assistance in emergency situations Functional skill components:												
.1	follow recommended procedures for rescuing persons from a ship in distress or a wreck	R	R	R	R	M	M	M	M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

7.2.10 Competency area: Emergency procedures (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Limited waters	Unlimited waters	Engineer officer	Communica-tions	Skilled fishers	Fishing vessel personnel
Competency units	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communica-tions	Skilled fishers	Fishing vessel personnel
		R	R	R	R	M	M	M	M				
		R	R	R	R	M	M	M	M				
.2	follow recommended man overboard procedures	R	R	R	R	M	M	M	M				
.3	apply procedures for towing and being towed	R	R	R	R	M	M	M	M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.11 Competency area: Medical care	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels					
		Skipper	Nav/WK*	Limited waters		Unlimited waters		Engineer officer	Communi-cations	Skilled fishers	Fishing vessel personnel		
				Nav/WK*	Skipper	Nav/WK*	Skipper						
Competency units .1 Unit: Render first aid to injured persons Functional skill components: .1 apply basic first aid procedures .2 identify procedures for obtaining medical advice by radio .3 use <i>International Medical Guide for Ships</i> or equivalent publication .4 use the medical section of the International Code of Signals	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi-cations	Skilled fishers	Fishing vessel personnel
	M	M	M	M	M	M	M	M	M	M	M	M	M
	R	R	M	M	M	M	M	M	M	M	M	M	M

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.12 Competency area: Maritime law	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels					
		Skipper	Nav/WK*	Limited waters		Unlimited waters		Engineer officer	Communi-cations	Skilled fishers	Fishing vessel personnel		
				Nav/WK*	Skipper	Nav/WK*	Skipper						
Competency units .1 Unit: Apply international maritime legal requirements as embodied in international agreements and conventions Functional skill components: .1 identify responsibilities for obtaining, maintaining the legal validity of, and carrying on board certificates and documents required to be carried by fishing vessels .2 identify responsibilities under other international instruments i.e. FAO Code of Conduct for Responsible Fisheries .3 identify legal responsibilities towards the relevant requirements of the 1993 Torremolinos Protocol	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi-cations	Skilled fishers	Fishing vessel personnel
	R		M		M		M		M				
			R		M		M		M				

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.12 Competency area: Maritime law (cont.)	Fishing vessels less than 12 m	Fishing vessels 12–24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12–24 m		Fishing vessels 24 m and over		Fishing vessels 12–24 m		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Competency units	Skipper												
.4 identify legal responsibilities, as appropriate, under the SOLAS Convention			M			M						M	
.5 identify legal requirements with respect to maritime declarations of health												M	
.6 identify legal responsibilities towards the International Regulations for the Prevention of Collisions at Sea	M			M									
.2 Unit: Prevent pollution of the marine environment Functional skill components:													
.1 identify responsibilities under the International Convention for the Prevention of Pollution from Ships	M											M	
.2 apply the provisions of the International Convention for the Prevention of Pollution from Ships		M			M					M			

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

7.2.12 Competency area: Maritime law (cont.)	Fishing vessels less than 12 m	Fishing vessels 12–24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12–24 m		Fishing vessels 24 m and over		Fishing vessels 12–24 m		Fishing vessels 24 m and over		All vessels		All vessels	
		Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
Competency units	Skipper												
.3 Unit: Apply national and other relevant laws and regulations and agreements													
.1 identify national laws and regulations applicable to fishing vessels	R					R							
.2 identify relevant rules and regulations and agreements affecting all aspects of fishing vessel operations in fishing areas	R					R							

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.13 Competency area: English language	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel	
				Nav/WK*	Skipper	Nav/WK*	Skipper					
Competency units	Skipper		Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper					
.1 Unit: Apply English language to fishing vessel operations Functional skill components:												
.1 interpret English language charts and nautical publications						M	M					
.2 interpret English language meteorological information and safety messages						M	M					
.3 communicate in English with other ships and coast stations			R		R	M	M					
.4 interpret and use relevant sections of IMO standard marine communication phrases, as appropriate			R		R	M	M					

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.14 Competency area: Communications	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel	
				Nav/WK*	Skipper	Nav/WK*	Skipper					
Competency units	Skipper		Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper					
.1 Unit: Identify global maritime distress and safety system (GMDSS) and radio communication requirements Functional skill components:†												
.1 identify principles and basic factors for GMDSS use†												
.2 identify navigational and meteorological warning systems and select appropriate services†	R	R	R	M	M	M	M					
.3 identify the adverse effects of misuse of communication equipment†	R	R	R	R	R	M	M					

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

†Communications Every person in charge of or performing radio duties on a fishing vessel equipped with GMDSS equipment shall hold an appropriate certificate related to the GMDSS issued or recognized by the Administration under the provisions of the Radio Regulations. This certificate shall be not less than a Restricted Operator Certificate.

On every fishing vessel equipped with GMDSS and operating outside of an A1 Area, the person or persons designated for emergency and safety communications shall hold a General Operators Certificate.

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7.2.14 Competency area: Communications (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over		All vessels					
		Skipper	Nav/WK*	Skipper	Nav/WK*	Unlimited waters		Engineer officer	Commu-nications	Skilled fishers	Fishing vessel personnel
						Limited waters	Unlimited waters				
Competency units											
.2 Unit: Provide GMDSS and radiocommunications services Functional skill components:†									M		
.1 operate radiocommunication equipment†											
.2 provide radio services in an emergency†									M		
.3 apply search and rescue radiocommunication procedures									M		
.4 use ship reporting systems									M		
.5 apply radio medical services procedures									M		
.6 apply measures to protect personnel from radiation hazards									M		

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

†Communications

Every person in charge of or performing radio duties on a fishing vessel equipped with GMDSS equipment shall hold an appropriate certificate related to the GMDSS issued or recognized by the Administration under the provisions of the Radio Regulations. This certificate shall be not less than a Restricted Operator Certificate.

On every fishing vessel equipped with GMDSS and operating outside of an A1 Area, the person or persons designated for emergency and safety communications shall hold a General Operators Certificate.

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7.2.14 Competency area: Communications (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over		All vessels					
		Skipper	Nav/WK*	Skipper	Nav/WK*	Unlimited waters		Engineer officer	Commu-nications	Skilled fishers	Fishing vessel personnel
						Limited waters	Unlimited waters				
Competency units											
.3 Unit: Make visual signals Functional skill components:											
.1 use the International Code of Signals				R				R		M	
.2 transmit and receive signals by Morse light										M	

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.15 Competency area: Life saving	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Engineer officer	Communi-cations	Skilled fishers	Fishing vessel personnel
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Limited waters	Unlimited waters				
Competency units	Skipper												
.1 Unit: Apply personal survival techniques Functional skill components:													
.1 identify emergency procedure responses	M	M	M	M	M	M	M	M	M	M	M	M	M
.2 identify personal survival procedures	M	M	M	M	M	M	M	M	M	M	M	M	M
.2 Unit: Operate and maintain emergency equipment Functional skill components:													
.1 use lifejackets and lifebuoys	M	M	M	M	M	M	M	M	M	M	M	M	M
.2 use flares and rockets	M	M	M	M	M	M	M	M	M	M	M	M	M
.3 use liferafts and lifeboats	M	M	M	M	M	M	M	M	M	M	M	M	M
.4 use emergency position indicating radio beacons													
.5 maintain emergency equipment	M	M	M	M	M	M	M	M	M	M	M	M	M

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.16 Competency area: Search and rescue	Fishing vessels less than 12 m	Fishing vessels 12-24 m				Fishing vessels 24 m and over				All vessels			
		Fishing vessels 12-24 m		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Fishing vessels 24 m and over		Engineer officer	Communi-cations	Skilled fishers	Fishing vessel personnel
		Nav/WK*	Skipper	Nav/WK*	Skipper	Limited waters	Unlimited waters	Limited waters	Unlimited waters				
Competency units	Skipper												
.1 Unit: Apply search and rescue arrangements: Functional skill components:													
.1 identify search and rescue procedures specified by the Merchant Ship Search and Rescue Manual (MERSAR) and the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual)	R	R	R	R	R	R	R	R	R				
.2 apply search and rescue procedures specified by the Merchant Ship Search and Rescue Manual (MERSAR) and the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual)	R												

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch



7.2.17 Competency area: Safety and health for fishing personnel	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels				
		Skipper	Nav/WK*	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel	
				Skipper	Nav/WK*	Skipper	Nav/WK*					
Competency units												
	.1 Unit: Apply safety and health practices for fishing vessel personnel Functional skill components: .1 apply safety precautions and procedures for fishing vessel personnel .2 apply safety precautions associated with the operation of fishing gear	M	M	M	M	M	M	M	M	M		
.2 Unit: Demonstrate knowledge of the FAO/ILO/IMO Code for Fishermen and Fishing Vessel Personnel Functional skill components: .1 demonstrate knowledge of fishing vessel on-board safety procedures .2 demonstrate knowledge of safety in fishing operations techniques and procedures												
		R	R	R	R	R	R	R	R	R		

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

7.2.18 Competency area: Human relationships	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels					
		Skipper	Nav/WK*	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel		
				Skipper	Nav/WK*	Skipper	Nav/WK*						
Competency units													
	.1 Unit: Apply personnel management recommendations Functional skill components: .1 identify management requirements for fishing vessel personnel .2 establish training arrangements for safeguarding human relationships on board fishing vessels .3 apply measures to minimize loneliness and isolation among fishing vessel personnel	R		R	R	R	R	R	R	R			
	.2 Unit: Conduct on-board training and assessments Functional skill components: .1 conduct functional skill training arrangements .2 make on-board functional skill assessments .3 conduct musters and drills												

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.19 Competency area: Code of Conduct for Responsible Fisheries	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels					
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel	
					Nav/WK*	Skipper	Nav/WK*	Skipper					
Competency units	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
.1 Principles and guidelines of the Code of Conduct	R	R	R	R	R	R	R	R	R	R	R	R	R
.1 explain the objectives of the Code of Conduct													
.2 Responsible harvesting practices	R	R	R	R	R	R	R	R	R	R	R	R	R
.1 describe the effects of discards and by-catch													
.2 define the detrimental effects of lost fishing gear													
.3 identify causes of habitat damage through fishing operations	R	R	R	R	R	R	R	R	R	R	R	R	R
.4 describe the purpose of marine reserves	R	R	R	R	R	R	R	R	R	R	R	R	R
.5 explain the appropriate utilisation of fish as food	R	R	R	R	R	R	R	R	R	R	R	R	R

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

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7.2.19 Competency area: Code of Conduct for Responsible Fisheries (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels					
		Skipper	Nav/WK*	Skipper	Limited waters		Unlimited waters		Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel	
					Nav/WK*	Skipper	Nav/WK*	Skipper					
Competency units	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Nav/WK*	Skipper	Engineer officer	Communi- cations	Skilled fishers	Fishing vessel personnel
.6 apply recommendation with regard to the disposal of unserviceable fishing gear	R	R	R	R	R	R	R	R	R	R	R	R	R
.7 identify the causes of vessel/gear conflicts	R	R	R	R	R	R	R	R	R	R	R	R	R
.3 Responsible fishing gear/ selectivity													
.1 explain the importance of fishing gear selectivity	R	R	R	R	R	R	R	R	R	R	R	R	R
.2 explain factors that affect size selectivity	R	R	R	R	R	R	R	R	R	R	R	R	R
.3 explain factors that affects species selectivity	R	R	R	R	R	R	R	R	R	R	R	R	R
.4 Energy optimization													
.1 explain the various factors that can optimise energy use in the fishing industry	R	R	R	R	R	R	R	R	R	R	R	R	R

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

Chapter 7
Section 2

7.2.19 Competency area: Code of Conduct for Responsible Fisheries (cont.)	Fishing vessels less than 12 m	Fishing vessels 12-24 m		Fishing vessels 24 m and over				All vessels											
		Limited waters		Unlimited waters		Engineer officer	Commu- nications	Skilled fishers	Fishing vessel personnel	Limited waters		Unlimited waters							
		Nav/WK*	Skipper	Nav/WK*	Skipper					Nav/WK*	Skipper	Nav/WK*	Skipper						
.5 Duties of all States																			
.1 identify the relevant national Administrations and their fisheries responsibilities	R		R			R				R				R					R
.6 Flag State duties																			
.1 identify the relevant national administrations and their responsibilities with regard to fishing vessels and fishing personnel	R		R			R				R				R					R
.7 Port State Duties																			
.1 identify the actions that can be taken by a port State	R		R			R				R				R					R

M = Mandatory (see explanation in section 7.1.5.2)

R = Recommended (see explanation in section 7.1.5.2)

*Nav/WK = Officer in charge of a navigational watch

Chapter 7
Section 3 – Functional skill performance criteria

Fishing vessel personnel functional skill performance criteria

Chapter 7
Section 3

7.3.1 Competency area: Navigation and position determination

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Voyage planning and navigation for all conditions	.1 plan track in areas affected by tides and currents	The appropriate track to be taken in areas affected by tides and currents is determined taking into consideration the prevailing weather conditions, the direction, velocity and duration of tidal streams and the times and heights of tidal movement
	.2 plan track in restricted waters	The intended track to be taken in restricted waters is planned taking into account the identification of reefs, shallows and other local dangers to navigation
	.3 plan track in restricted visibility	The intended track to be taken in restricted visibility is planned taking into account the nature of the restricted visibility, traffic density and the proximity of navigational hazards
	.4 where applicable, plan track in traffic separation schemes	The track to be taken in a designated traffic separation schemes is planned in accordance with the regulations applying to the use of the scheme
	.5 where applicable, plan track in ice	Where applicable, the track to be taken in conditions of ice or ice accretion is planned taking into consideration ice reports, meteorological information and the likelihood of conditions conducive to ice formation
	.6 determine ocean tracks	The appropriate track for an ocean voyage is determined taking into consideration the geometry of the earth, navigational hazards and available meteorological and oceanographic information and the operational range of the vessel
Range of variables		Functional skill training option assessment guide
Voyage planning and navigation may involve the use of: — plane sailing — plotting — nautical tables — rhumb line and/or great circle sailings — electronic track plotting devices		Training in this unit may be undertaken on board or through integrated on board and on shore training arrangements. Evidence of competency may be established through: (a) Formative assessment processes under operational conditions appropriate for the particular certification requirements and may be: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment process

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.1 Competency area: Navigation and position determination (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Apply celestial body observation for position fixing and navigation	.1 use sextant	Altitudes of celestial bodies are obtained in accordance with accepted procedures. Corrections are applied to sextant altitudes in order to obtain a true altitude in accordance with accepted practices
	.2 complete sight reduction	The nautical almanac is used correctly to obtain information necessary for sight reduction purposes. Position lines are obtained by an appropriate method
	.3 obtain and plot position lines	Position lines are plotted and the vessel's position determined within acceptable instrument/system error
Range of variables		Functional skill training option assessment guide
Sight reduction methods may include: <ul style="list-style-type: none"> • Various tables of computed altitude and azimuth • Electronic calculators 		Training in this Unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other. Competency may be established through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.1 Competency area: Navigation and position determination (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Use terrestrial observation for position fixing and coastal navigation	.1 identify navigational hazards	Navigation hazards are correctly identified and safely negotiated taking into account: – the identification of reefs, shallows and other dangers to navigation – the evaluation, by an appropriate method, of water depths, tide heights and tidal stream velocities for their effect on the safe navigation of the vessel
	.2 use navigational aids, clearing marks and transit bearings to safely navigate hazards	Navigational aids, including buoys, beacons and lighthouses, together with clearing marks and transit bearings are correctly used to position the vessel in navigable waters
	.3 read and interpret marine charts	The appropriate marine charts are used to identify coastal features, isolated dangers, tidal streams, navigational aids, and in addition to measure distances, and, using an accepted plotting device, to plot safe courses
	.4 obtain and plot position lines to determine vessel's position.	Observations of terrestrial objects are taken and resulting position lines plotted after correctly applying deviation and variation corrections
	.5 apply dead reckoning procedures to determine vessel's position	The application of dead reckoning techniques to determine the vessel's position is undertaken as appropriate for the size of the vessel concerned and its operational requirements
	.6 use notices to mariners and other publications to assess accuracy of position fixes	Notices to mariners and other publications are used, in accordance with mandatory requirements, to keep charts current and to prevent the application of incorrect information to position determination

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.1 Competency area: Navigation and position determination (cont.)

Range of variables	Functional skill training option assessment guide
<p>The use of terrestrial observation for position fixing may involve the use of:</p> <ul style="list-style-type: none"> - azimuth mirror - pelorus - sextant - various accepted plotting devices 	<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components may be assessed independently or in relation to each other in accordance with certification requirements. Competency may be established through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.1 Competency area: Navigation and position determination (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
<p>4 Use electronic navigational aids for position fixing and navigation</p>	<p>.1 operate electronic navigational aids</p>	<p>Electronic navigational aids are correctly operated in accordance with operational specifications</p>
	<p>.2 determine vessel's position with electronic aids</p>	<p>The vessel's position is fixed by correctly interpreting the information derived from an electronic aid to navigation</p>
<p>Range of variables</p> <p>The use of electronic navigational aids may include any of the following systems:</p> <ul style="list-style-type: none"> Global positioning system (GPS) GPS track plotter/radar interface Electronic charts Satellite system Loran Towed or bottom logs 		
<p>Functional skill training option assessment guide</p> <p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other. Competency may be established through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p> <p><i>Note</i> Where available, discussing with candidates, a disk or tape copy of a track plotter operational exercises undertaken by the candidates may be of assistance with summative assessments</p>		

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.2 Competency area: Watchkeeping

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Apply International Regulations for Preventing Collisions at Sea to fishing vessel operation	.1 apply steering and sailing rules	Steering and sailing rules are applied in accordance with the requirements of the International Regulations for the Prevention of Collisions at Sea
	.2 apply light and shape regulations	The use of navigation lights and the displaying of lights and shapes are observed in accordance with the requirements of the International Regulations for the Prevention of Collisions at Sea
	.3 apply sound and light signal requirements	The application of sound and light signals are observed in accordance with the provisions of the International Regulations for the Prevention of Collisions at Sea
Range of variables The application of the International Regulations for the Prevention of Collisions at Sea is a requirement for all vessels		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Competency will be established by demonstration of ability to identify responsibilities and take appropriate action to avoid collisions, identify light and shape configurations and identify and or make appropriate sound signals when manoeuvring, operating in restricted visibility or when in distress. Assessment may be made through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.2 Competency area: Watchkeeping (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Observe basic principles for keeping a navigational watch	.1 plan a navigational watch	The composition of a navigational watch is established in accordance with the requirements specified by the prevailing circumstances and conditions. The navigation watch system is established in accordance with requirements for ensuring that relieving watches are rested and fit for duty
	.2 maintain a navigational watch	Fishing vessel navigational watches are changed in accordance with the specified procedures. Lookout arrangements are observed in accordance with specifications. Procedures to summons assistance to the wheelhouse are observed in accordance with requirements
	.3 maintain an anchor watch	Anchor watches are maintained in accordance with specified procedures
Range of variables The requirements for keeping a navigational watch on board fishing vessels may vary when: • engaged in fishing operations underway, but not engaged in fishing operations • navigating in areas of high traffic density • using automatic steering arrangements • changing sea and weather conditions prevail • towing and being under tow • restricted visibility occurs		Functional skill training option assessment guide Training in this Unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Competency may be established by the demonstration of adherence to the specified procedures and may be assessed through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.3 Competency area: Radar navigation

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Operate radar	.1 identify factors affecting performance and accuracy	Factors affecting the performance, accuracy and safe use of radar are identified in accordance with operational requirements
	.2 set up radar and maintain display	Radar is set up and display maintained in accordance with operational specifications
	.3 detect misrepresentation of information, false echoes, sea return etc.	Information obtained from radar is correctly interpreted taking into consideration the limitations of radar and the prevailing weather conditions
	.4 establish the range and bearings of radar targets	The ranges and bearings of radar targets are determined in accordance with operational requirements
	.5 identify critical echoes	The identification of critical echoes is made in accordance with operational requirements
<p>Range of variables</p> <p>The operation of radar may involve:</p> <ul style="list-style-type: none"> • differing operational control and set up procedures between makes and models of radar • use of an unstabilized display (head up) • use of a stabilized display (north up) • use of radar target warning devices • use of automatic radar plotting aids • use of radar/electronic navigational aid interface arrangements 		<p>Functional skill training option assessment guide</p> <p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. For further guidance refer to appendices 1-4. It should be noted that resolution 2, of the 1995 STCW-F Convention recommends that radar simulator training be given to all skippers and officers in charge of a navigational watch. The functional skill components of this unit should be assessed in relation to each other. Competency will be established by demonstration of ability to operate radar in accordance with specifications. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.3 Competency area: Radar navigation (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Use radar for collision avoidance	.1 establish the course and speed of other ships	The course and speed of other ships is established using an accepted plotting technique
	.2 determine the time and distance of closest approach of crossing, meeting or overtaking ships	The time and distance of closest approach of crossing, meeting or overtaking ships is determined using an accepted plotting technique
	.3 detect course and speed changes of other ships	Course and speed changes of other ships are detected through appropriate monitoring and plotting arrangements
	.4 identify the effects of changes in own vessel's course or speed or both.	The effect that changes in own vessel's course or speed has on a radar plot is identified
	.5 apply the International Regulations for Preventing Collisions at Sea	Collision avoidance procedures employed when using radar are applied in accordance with the provisions of the International Regulations for the Prevention of Collisions at Sea
<p>Range of variables</p> <p>The use of radar for collision avoidance may include:</p> <ul style="list-style-type: none"> • use of an unstabilized display (head up) • use of a stabilized display (north up) • use of radar target warning devices • use of automatic radar plotting aids • use of manual plotting arrangements • use of electronic track plotters • use of radar/electronic navigational aid interface arrangements 		<p>Functional skill training option assessment guide</p> <p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. For further guidance refer to appendices 1-4. It should be noted that resolution 2, of the 1995 STCW-F Convention recommends that radar simulator training be given to all skippers and officers in charge of a navigational watch. Competency in this unit will be established by the demonstration of ability to perform the specified functional skills. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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Section 3

7.3.4 Competency area: Magnetic and gyro compasses

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Use compass	.1 steer a compass course	The compass is used in accordance with procedures specified for steering an accurate compass course
	.2 maintain a compass	The compass is maintained in accordance with specified survey procedures and manufacturers' specifications
.2 Determine and apply compass errors	.1 determine and apply compass errors using terrestrial observation	Terrestrial observation procedures to identify compass error are undertaken at regular intervals and where required error details are recorded and applied to subsequent course and bearing determinations
	.2 determine and apply compass error using celestial observation	The observation of celestial bodies is undertaken at regular intervals to identify compass errors and where required error details are recorded and applied, as appropriate, to subsequent course and bearing determinations
Range of variables		Functional skill training option assessment guide
The use of compasses and the determination of compass errors may include: <ul style="list-style-type: none"> • magnetic compasses • gyro compasses • electronic compasses 		Training in these units may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components may be assessed independently or in relation to each other in accordance with certification requirements. Competency will be established by the demonstration of ability to meet the functional skill requirements. Assessment may be made through: <ol style="list-style-type: none"> (a) Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.5 Competency area: Meteorology and oceanography

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Obtain and apply meteorological information	.1 identify weather conditions liable to endanger the vessel	Weather conditions, which may be encountered in the vessel's operational area, and which are liable to endanger the vessel are appropriately identified
	.2 apply available meteorological information	Sources and availability of weather forecasts applicable to the vessel's operational area are identified; Weather forecasts are obtained, interpreted and applied to the vessel's operations in accordance with requirements
	.3 use shipborne meteorological instruments	Fishing vessel meteorological instruments are use in accordance with operational requirements
	.4 identify the characteristics of various weather systems	The characteristics of various weather systems are identified; Action to avoid storm centres and dangerous quadrants is taken in accordance with operational requirements
Range of variables		Functional skill training option assessment guide
The application of meteorological information may include: <ul style="list-style-type: none"> • radio weather reports • weather fax • the passage of weather fronts • tropical revolving storms • ice formation conditions 		Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements (for further guidance refer to appendix 7). The functional skill components of this unit may be assessed independently or in relation to each other as determined by certification requirements. Assessment may be made through: <ol style="list-style-type: none"> (a) Formative assessment processes under operational conditions. These may be either: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes.

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.5 Competency area: Meteorology and oceanography (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Obtain and apply oceanographic information	.1 use appropriate navigational publications on tides and currents	Marine charts and appropriate navigational publications giving tidal information for the vessel's areas of operation are used in accordance with operational requirements
	.2 calculate the times and heights of high and low water and estimate the direction and rate of tidal streams	Times and heights of high and low water, the direction and rate of tidal streams and their effects upon the operation of the vessel are determined in accordance with operational requirements
<p>Range of variables</p> <p>The application of oceanographic information may involve information relating to:</p> <ul style="list-style-type: none"> • lunar cycles • ocean currents • ocean waves and swell 		
<p>Functional skill training option assessment guide</p> <p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements (for further guidance refer to appendix 7). The functional skill components of this unit may be assessed independently or in relation to each other as determined by certification requirements. Assessment may be made through:</p> <ol style="list-style-type: none"> (a) Formative assessment processes under operational conditions. These may be either: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes 		

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.6 Competency area: Fishing vessel manoeuvring and handling

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Identify techniques for manoeuvring and handling fishing vessels	.1 identify requirements for berthing, unberthing and manoeuvring along side other vessels at sea	Factors to be taken into consideration when berthing, unberthing or manoeuvring along side other vessels at sea are correctly identified
	.2 identify requirements for manoeuvring during fishing operations	Procedures for manoeuvring the vessel during fishing operations are identified in accordance with the requirements dictated by the fishing method being employed
	.3 identify the effects of wind, tide and current on ship handling	The effects that wind, tide and current have on vessel handling are identified as appropriate for the class of fishing vessel concerned
	.4 identify requirements for manoeuvring in shallow waters	The limitations associated with manoeuvring a vessel in shallow water are identified
	.5 identify major considerations for managing a fishing vessel in heavy weather	Vessel handling considerations associated with managing the vessel in beam to sea, head to sea and running before the conditions are identified. Procedures for heaving to are identified
	.6 identify requirements for rescuing persons and assisting vessels in distress	Procedures specified for rescuing persons and assisting vessels in distress are identified
	.7 identify requirements for towing and being towed	Procedures recommended for taking another vessel in tow are identified. Procedures recommended for receiving a tow and being taken in tow are identified
	.8 identify vessel handling requirements for man overboard procedure	Vessel handling procedures recommended for a man overboard situation are identified
	.9 identify, where applicable, practical measures to be taken when navigating in ice or conditions of ice accretion	Procedures to be followed when navigating near ice are identified. Measures to be undertaken to minimize ice accretion are identified

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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Section 3

7.3.6 Competency area: Fishing vessel manoeuvring and handling (cont.)

Range of variables	Functional skill training option assessment guide
<p>Techniques for manoeuvring and handling fishing vessels may incorporate:</p> <ul style="list-style-type: none"> • single or twin propeller operations • automatic steering arrangements • differing fishing operational methods • laden and unladen vessels • fouled fishing gear 	<p>Training in this unit may be undertaken on board a fishing vessel or through integrated on board and on shore training arrangements. Competency in this unit is a requirement for certification as an officer in charge of a navigational watch. Evidence of competency may be established through:</p> <p>(a) Formative assessment processes under operational conditions as appropriate for the particular certification requirements. These may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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Section 3

7.3.6 Competency area: Fishing vessel manoeuvring and handling (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Manoeuvre and handle fishing vessels in all conditions	.1 berth, unberth and anchor vessel under various conditions of wind and tide	Fishing vessels are berthed, unberthed and anchored in accordance with the recommended procedures
	.2 manoeuvre vessel in shallow water	The vessel is appropriately manoeuvred taking into consideration the limitations associated with manoeuvring in shallow water
	.3 manage and handling of fishing vessels in heavy weather	Fishing vessels are correctly manoeuvred taking into consideration the effects that beam to sea, head to sea and running before the sea conditions have on a vessel's performance. Procedures required for heaving to are correctly followed
	.4 manoeuvre the vessel during fishing operations	Procedures for manoeuvring the vessel during fishing operations are identified in accordance with the requirements dictated by the fishing method being employed
	.5 identify precautions to be taken in manoeuvring for launching boats or liferafts in bad weather	Precautions to be taken when manoeuvring the vessel in preparation for the launching of boats or liferafts in bad weather are identified
	.6 identify vessel handling requirements associated with taking on board survivors from lifeboats or liferafts	Vessel handling requirements for taking on board survivors from lifeboats or liferafts are identified in accordance with the recommended procedures
	.7 where applicable, practical measures to be taken when navigating in ice or conditions of ice accretion on board the vessel	Procedures recommended for navigating near ice are followed in accordance with operational requirements. Practical measures are taken to minimize ice accretion in accordance with specified procedures



Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.6 Competency area: Fishing vessel manoeuvring and handling (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
2 Manoeuvre and handle fishing vessels in all conditions (cont.)	.8 use and manoeuvre in, traffic separation schemes	Manoeuvring of the vessel in designated traffic separation zones is undertaken in accordance with the requirements of the International Regulations for the Prevention of Collisions at Sea
	.9 navigate at an appropriate speed to avoid damage caused by own vessel's bow or stern wave	The vessel is navigated at an appropriate speed to avoid damage caused by own vessel's bow or stern wave in accordance with the specified procedures
	.10 apply procedures for transferring fish at sea to factory ships or other vessels	The transferring of fish at sea to factory ships or other vessels is undertaken in accordance with the specified procedures
	.11 follow procedures for refuelling at sea	Refuelling at sea is undertaken in accordance with safety requirements and the observance of measures specified for the prevention of pollution

Range of variables

The manoeuvring and handling of fishing vessels may involve:

- single or twin propeller operations
- automatic steering arrangements
- differing fishing operational methods
- laden and unladen vessels
- fouled fishing gear

Functional skill training option assessment guide

Training in this unit may be undertaken on board a fishing vessel or through integrated on board and on shore training arrangements. Evidence of competency may be established through:

(a) Formative assessment processes under operational conditions as appropriate for the particular certification requirements. This may involve:

- (1) progressive on board assessments throughout the training period; or
- (2) current competencies skill assessments under operational conditions; and

(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.7 Competency area: Fishing vessel construction and stability

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Apply vessel principal structural member description and function to fishing vessel operations	.1 identify the principal structural members of a vessel	The principal structural members of fishing vessels are correctly identified taking into account the category of vessel concerned, its design features and construction materials
	.2 identify the proper names of the various parts	The location and function of the various parts of fishing vessels are identified in accordance with requirements for the safe operation of the vessel concerned
	.3 identify damage control techniques	Damage control techniques and procedures are identified, incorporating where appropriate the vessel's contingency plan

Range of variables

Structural variations apply to:-

- wooden hull vessels
- steel hull vessels
- fibre glass hull vessels
- aluminium hull vessels
- concrete hull vessels
- composite construction hulls

Design variations apply to:

- stern trawlers
- side trawlers
- beam trawlers
- multi rig trawlers
- purse seine vessels
- gill net vessels
- long line vessels
- dredge fishing vessels

Functional skill training option assessment guide

Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:

(a) Formative assessment processes under operational conditions which may be either:

- (1) progressive on board assessments throughout the training period; or
- (2) current competencies skill assessments under either operational or simulated conditions; and

(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.7 Competency area: Fishing vessel construction and stability (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
2. Maintain vessel stability	.1 use stability data, stability and trim tables and pre-calculated operating conditions	Stability data, stability and trim tables and pre-calculated operating conditions are used in accordance with specifications
	.2 identify the effects of free surface and ice accretion, where applicable	The effects of free surface movement and, where applicable, ice accretion on the stability of fishing vessels are correctly identified
	.3 identify the effects of water on deck	The effect that water on deck has on the stability of fishing vessels is correctly identified
	.4 identify the significance of weathertight and watertight integrity	The significance of weathertight and watertight integrity for the safe operation of fishing vessels is correctly identified
	.5 apply theories and factors affecting trim and stability and measures necessary to preserve safe trim and stability	Theories and factors affecting the trim and stability are correctly identified. Procedures to be followed to safely preserve trim and stability are correctly identified. (For further guidance refer to appendix 16)

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.7 Competency area: Fishing vessel construction and stability (cont.)

Range of variables	Functional skill training option assessment guide
<p>The maintenance of fishing vessel stability may involve:</p> <ul style="list-style-type: none"> • operational differences between active and passive fishing gear • the effects of deploying fishing gear • whether fish are carried in bulk or individual containers • the influence of severe rolling conditions • weather conditions • changed conditions when crossing sand bars • anti-rolling devices • changed conditions resulting from the raising or lowering of weights 	<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.7 Competency area: Fishing vessel construction and stability (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Catch handling and stowage	.1 identify the effect upon the safety of the vessel of catch handling and stowage	Factors associated with catch handling and stowage procedures, appropriate for the safety of the category of fishing vessel concerned, are correctly identified
	.2 stow and securing catch and fishing gear on board vessels	The stowing and securing of catch and fishing gear is undertaken in accordance with the procedures recommended for the category of fishing vessel concerned. (For further guidance refer to appendix 35)
	.3 follow loading and discharging procedures	The loading and discharging of catch is undertaken in accordance with the recommended procedures
<p>Range of variables</p> <p>Catch loading and discharging may involve the use of:</p> <ul style="list-style-type: none"> • fish brailing nets • fish pumps • conveyer belts <p>Fish stowage methods may involve:</p> <ul style="list-style-type: none"> • fish bins or boxes • bulk ice in fish hold pound divisions • refrigerated seawater tanks • brine tanks • freezer holds 		<p>Functional skill training option assessment guide</p> <p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.8 Competency area: Fishing vessel power plants

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Operate and maintain fishing vessel power plants	.1 identify operating principles of marine power plants in fishing vessels	The operating principles of marine power plants are identified in accordance with the characteristics of the operating system concerned
	.2 operate and maintain outboard motors	Outboard motors are operated and maintained in accordance with the manufacturers' specifications. Basic faults are identified and rectified in accordance with recommended procedures
	.3 operate and maintain as appropriate marine diesel engines marine steam propulsion plant or marine gas turbines	Marine diesel engines, marine steam propulsion plants, marine gas turbines and associated power transmission systems are operated and maintained in accordance with the manufacturers' specifications
<p>Range of variables</p> <p>The operation and maintenance of fishing vessel power plants may include:</p> <ul style="list-style-type: none"> • the use of 2 and 4 stroke engines • the use of compression ignition and spark ignition engines • the use of high and slow speed engines • the use of mechanical, oil operated and electronic operating systems • the operation of variable pitch propellers 		<p>Functional skill training option assessment guide</p> <p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.8 Competency area: Fishing vessel power plants (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Operate and maintain fishing vessel auxiliary machinery	.1 operate, test and maintain fishing vessel electrical and control systems	Fishing vessel electrical and control systems are operated in accordance with specified procedures. Fishing vessel electrical systems are monitored for corrosion, moisture and defective connections in accordance with specified maintenance schedules. (For further guidance refer to appendices 26, 27 and 28)
	.2 operate and maintain pumping systems	Pumping and piping systems are operated and maintained in accordance with operational requirements and specified procedures. Discharges are monitored in accordance with requirements specified for the prevention of pollution. (For further guidance refer to appendices 24 and 25)
	.3 operate and maintain steering systems	Fishing vessel steering systems are operated and maintained in accordance with operational requirements. Emergency steering arrangements are rigged and operated as required
	.4 operate and maintain refrigeration systems	Refrigeration systems are operated and maintained in accordance with manufacturers specifications and legal requirements. Emergency evacuation and retrieval procedures for CFC gases are applied as specified. The dangers of toxic gases emanating from refrigeration systems and holds are identified
	.5 operate and maintain hydraulic systems	Hydraulic systems are operated and maintained in accordance with operational requirements and manufacturers specifications
	.6 operate and maintain catch handling equipment and deck machinery	Catch handling equipment and deck machinery is operated and maintained in accordance with specified operational procedures and manufacturers recommendations
	.7 detect machinery malfunction, locate faults and take action to prevent damage	Machinery malfunction and faults are identified in accordance with recommended procedures. Faults are rectified in accordance with specified procedures
	.8 apply safe maintenance and repair procedures	The performance of fishing vessel power plants is monitored and recorded in accordance with recommended maintenance schedules. The diagnosis and replacement of faulty or defective components is undertaken in accordance with recommended procedures and specified safety precautions

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.8 Competency area: Fishing vessel power plants (cont.)

Range of variables	Functional skill training option assessment guide
<p>The operation and maintenance fishing vessel auxiliary machinery will involve a variable range of operating systems i.e.</p> <ul style="list-style-type: none"> • Electrical: low and medium voltage AC and DC systems, three phase power and solar power • Pumping : manual, plunger, centrifugal, geared and impeller operated pumps • Piping: direct suction, cross connecting suction, manifold systems • Steering: manual, mechanical, hydraulic, electronic, water jet, steering nozzle and air operated steering systems • Refrigeration: coil, plate, blast, RSW, immersion brine and bulk icing systems • Hydraulic: low and high operating pressure hydraulic systems 	<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed independently of each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.8 Competency area: Fishing vessel power plants (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Apply theoretical engineering principles to fishing vessel systems operation	.1 identify marine engineering terms applicable to fishing vessel operating systems	Marine engineering terms are adequately used to theoretically diagnose faults and develop solutions appropriate for fishing vessel operating systems
	.2 apply theoretical fault finding outcomes to maintain fishing vessel operating systems	Theoretical principles are applied to the development of maintenance schedules for fishing vessel operating systems in accordance with operational requirements
	.3 apply safe working practices	Safe working practices, contingency and emergency procedures are developed in accordance with the operational requirements of fishing vessel operating systems
Range of variables The application of theoretical engineering principles to fishing vessel operations includes: <ul style="list-style-type: none"> • electrical systems • energy systems • mechanical systems • hydromechanical systems • organizational emergency systems 		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: <ol style="list-style-type: none"> (a) Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.8 Competency area: Fishing vessel power plants (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.4 Observe basic principles for keeping an engineering watch	.1 plan an engineering watch	The composition of an engineering watch is established in accordance with requirements recommended for the safe operation of the fishing vessel
	.2 apply specified engineering watchkeeping arrangements	The respective duties and procedures associated with taking over and handing over an engineering watch are performed as specified. Routine engineering watchkeeping duties, as required for the operation and maintenance of machinery and the taking and recording of readings, are satisfactorily performed. (For more detailed guidance refer to appendix 42)
Range of variables The requirements for keeping an engineering watch on board fishing vessels may vary when: <ul style="list-style-type: none"> • engaged in fishing operations • underway but not engaged in fishing operations • underway in restricted waters • underway in coastal or congested waters • at anchor • manned and unmanned machinery spaces 		Functional skill training option assessment guide Skill components should be assessed in relation to each other. Training in this Unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: <ol style="list-style-type: none"> (a) Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.9 Competency area: Fire prevention and fire fighting

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Apply fire prevention and fire-fighting techniques	.1 identify classes and chemistry of fire	The classes and chemistry of fire are identified as appropriate for the application of fire prevention and fire-fighting techniques
	.2 apply fire safety procedures	Flammable materials and chemicals are used in accordance with specified procedures. Fire detection systems required for fishing vessels are used in accordance with specified procedures
	.3 use portable and fixed fire-fighting equipment	Portable fire-fighting equipment is used in accordance with the specified fire-fighting procedures. Fixed fire-fighting systems are installed in accordance with specifications. Fixed fire-fighting systems are used in accordance with specifications
	.4 identify provisions concerning fire-fighting equipment	Fire-fighting provisions, appropriate for the category of fishing vessel concerned, are adequately identified
	.5 organize fire drills	The organization of fire drills is undertaken in accordance with specified requirements
Range of variables		Functional skill training option assessment guide
<ul style="list-style-type: none"> Variable fire-prevention techniques apply when: refueling, using galley appliances, welding and charging batteries Variable fire-fighting techniques apply to the differing categories of fire Fire-fighting procedures may vary according to a vessel's contingency plan 	<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and</p> <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>	

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.10 Competency area: Emergency procedures

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Respond to emergency situations involving fishing vessel personnel	.1 follow emergency procedures specified in the vessel's contingency plans	Emergency situation responses, appropriate for the fishing vessel in which qualifying service has or is being gained, are identified and followed in accordance with the vessel's contingency plan
	.2 identify relevant emergency situation duties and responsibilities	Emergency duties and responsibilities are identified in accordance with contingency plans, including the appropriate action to be taken when observing or receiving distress signals. (For further guidance refer to appendices 11, 12 and 13)
	.3 identify appropriate action to be taken following a fire or collision	The appropriate actions to be taken following a fire or collision are identified in accordance with the recommended procedures
	.4 indicate procedures to be followed in abandoning the fishing vessel	Procedures to be followed in abandoning the vessel are correctly indicated
	.5 indicate action to be taken in rescuing persons	Appropriate actions to be taken in rescuing persons under varying situations are identified
	.6 identify man-overboard procedures	Man overboard procedures are followed in accordance with the specified emergency responses
Range of variables		Functional skill training option assessment guide
<p>Fishing vessel personnel responding to emergency situations should take account of as appropriate :</p> <ul style="list-style-type: none"> Part "A" FAO/IMO Code of Safety for Fishermen and Fishing Vessels The 1993 Torremolinos Protocol on the Safety of Fishing Vessels 	<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and</p> <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>	

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.10 Competency area: Emergency procedures (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Respond to fishing vessel emergency situations	.1 specify precautions to be taken when beaching a vessel	Preparations to be made and precautions to be considered prior to beaching a vessel are specified in accordance with the procedures recommended for the category of fishing vessel concerned
	.2 identify actions to be taken prior to, and after, grounding	Procedures to be implemented in the event of a grounding are identified in accordance with the vessel's contingency plan and the requirements of the International Regulations for the prevention of Collisions at Sea
	.3 specify action to be taken when the gear becomes fast to the ground or other obstruction	The action to be taken when fishing gear becomes fast on the ground or other obstruction is identified taking into account the fishing method employed and the vessel's contingency plan
	.4 follow procedures for floating a grounded vessel, with and without assistance	Actions to be taken to refloat a fishing vessel after grounding are identified taking into consideration the vessel's size and the nature and conditions of the grounding
	.5 indicate action to be taken following a collision	Procedures to assess damage to the vessel and ascertain the safety of personnel following a collision are undertaken in accordance with the vessel's contingency plan
	.6 follow procedures for the temporary plugging of leaks	Procedures to be followed to effect temporary repairs and the plugging of leaks are specified taking into consideration the structural material involved
	.7 prepare contingency plans for the protection and safety of fishing vessel personnel in emergencies	Contingency plans for the protection and safety of fishing vessel personnel in emergencies are prepared in accordance with specified requirements
	.8 identify procedures for limiting damage and salvaging the vessel following a fire or explosion	Techniques for limiting damage and salvaging a vessel following a fire or explosion are identified in accordance with recommended procedures

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.10 Competency area: Emergency procedures (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Respond to fishing vessel emergency situations (cont.)	.9 specify abandoning ship procedures	Subject to changing circumstances and conditions, abandon ship procedures are specified according to the requirements of the class of fishing vessel involved
	.10 identify emergency steering arrangements	Emergency steering arrangements, including the rigging and use of jury steering and, where practicable, the means of rigging a jury rudder are identified
Range of variables Responses to emergency situations may need to take account of: <ul style="list-style-type: none"> • The Safety of Life at Sea Convention • The MARPOL Convention • The International Regulations for the Prevention of Collision at Sea 		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed independently of each other in accordance with certification requirements. Assessment may be made through: <ol style="list-style-type: none"> (a) Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.10 Competency area: Emergency procedures (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Provide assistance in emergency situations	.1 follow recommended procedures for rescuing persons from a ship in distress or from a wreck	Procedures for rescuing persons from a ship in distress or from a wreck and which comply with accepted safety practices, are identified
	.2 follow recommended man-overboard procedures	Man-overboard procedures are followed in accordance with the vessel's contingency plan
	.3 apply procedures for towing and being towed	Procedures for towing and being towed are applied in accordance with good seamanship practices

Range of variables

The provision of assistance in emergency situations will need to take account of:

- Prevailing circumstances and conditions
- Towing procedures and practices which may vary according to:
 - legal responsibilities
 - the properties of the tow line
 - the length of the tow
 - the size of the vessels concerned
 - whether the tow is being undertaken in a following or head sea
 - slipping the tow in an emergency

Functional skill training option assessment guide

Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed independently of each other in accordance with certification requirements. Assessment may be made through:

- Formative assessment processes under operational conditions which may be either:
 - progressive on board assessments throughout the training period; or
 - current competencies skill assessments under either operational or simulated conditions; and
- Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.11 Competency area: Medical care

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Render first aid to injured persons	.1 apply basic first aid procedures	Injured persons are treated in accordance with specified procedures. Persons affected by poisonous and toxic substances are treated in accordance with specified procedures. Resuscitation techniques are applied in accordance with the specified procedures. (For further guidance refer to appendices 17, 18 and 19 as appropriate)
	.2 identify procedures for obtaining medical advice by radio	Procedures for obtaining medical advice by radio are correctly identified
	.3 use the International Medical Guide for Ships or equivalent national publication	The use of International Medical Guide for Ships or equivalent national publication is demonstrated as appropriate
	.4 use the medical section of the International Code of Signals	The use of the medical section of the International Code of Signals is demonstrated as appropriate

Range of variables

The rendering of first aid may include:

- The treatment of injured persons for: shock, bleeding, coma, fractures and dislocations
- The treatment of persons affected by inhaling toxic substances
- The treatment of victims of drowning and asphyxia

Functional skill training option assessment guide

Attendance at an approved first aid course may be required for this Unit) Training in this Unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed independently of each other in accordance with certification requirements. Assessment may be made through:

- Formative assessment processes under operational conditions which may be either:
 - progressive on board assessments throughout the training period; or
 - current competencies skill assessments under either operational or simulated conditions; and
- Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.12 Competency area: Maritime law

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Apply international maritime legal requirements as embodied in international agreements and conventions	.1 identify responsibilities for obtaining, maintaining the legal validity of and carrying on board certificates and other documents required to be carried by fishing vessels	Responsibilities relating to ensuring the legal validity and currency of licences and certificates specified for fishing vessels are clearly identified
	.2 identify responsibilities under other international instruments, e.g. FAO Code of Conduct for Responsible Fisheries	Responsibilities for complying with the requirements of national and international fish species management and environmental protection strategies are identified. (For further guidance refer to appendix 34)
	.3 identify legal responsibilities towards the relevant requirements of the 1993 Torremolinos Protocol	Legal responsibilities, relating to the requirements of the 1993 Torremolinos Protocol and the Torremolinos Convention for the Safety of Fishing Vessels, are identified as appropriate for the operational category of the fishing vessel concerned
	.4 identify legal responsibilities, as appropriate, under the SOLAS Convention	Fishing vessel legal responsibilities, as they relate to the Safety Of Life At Sea (SOLAS) Convention, are correctly identified
	.5 identify legal responsibilities, as appropriate, under the SOLAS Convention	Legislative requirements relating to maritime declarations of health are correctly identified
	.6 identify legal responsibilities towards the International Regulations for the Prevention of Collisions at Sea	Legal responsibilities relating to the measures to be observed in the application of the International Regulations for the Prevention of Collisions at Sea are clearly identified

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.12 Competency area: Maritime law (cont.)

Range of variables	Functional skill training option assessment guide
<p>The application of international maritime requirements as embodied in international agreements and conventions may vary with respect to:</p> <ul style="list-style-type: none"> the size and category of fishing vessels the limited or unlimited nature of the vessels' operations 	<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> progressive on board assessments throughout the training period; or current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>



Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.12 Competency area: Maritime law (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Prevent pollution of the marine environment	.1 identify responsibilities under the International Convention for the Prevention of Pollution from Ships	The responsibilities of fishing vessel personnel in the prevention of pollution of the marine environment are identified in accordance with the provisions of the MARPOL Convention and the recommendations of the FAO Code of Conduct for Responsible Fisheries
	.2 apply provisions of the International Convention for the Prevention of Pollution from Ships	The provision of the MARPOL Convention and the recommendations of the FAO Code of Conduct for Responsible Fisheries are applied to the operations of fishing vessels as appropriate to the operations of the category of fishing vessel concerned
Range of variables		
<p>The prevention of pollution of the marine environment may include:</p> <ul style="list-style-type: none"> the prevention of pollution by oil the prevention of pollution by noxious substances the dumping of waste products the inappropriate operation of fishing equipment 		
Functional skill training option assessment guide		
<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <p>(a) Formative assessment processes under operational conditions which may be either:</p> <ol style="list-style-type: none"> progressive on board assessments throughout the training period; or current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes</p>		

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.12 Competency area: Maritime law (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Apply national and other relevant laws, regulations and agreements.	.1 identify national laws and regulations applicable to fishing vessels	National laws and regulations applicable to fishing vessels are identified in accordance with operational requirements
	.2 identify relevant rules, regulations and agreements affecting all aspects of fishing vessel operations in fishing areas	Relevant rules, regulations and agreements affecting all aspects of fishing vessel operation in designated fishing areas are identified in accordance with national legal requirements
Range of variables		
<p>The application of national laws, regulations and agreements may vary with respect to:</p> <ul style="list-style-type: none"> fishing gear specifications fishery licensing requirements certification requirements applying to personnel engaged on fishing vessels less than 45 m in length operating in limited waters 		
Functional skill training option assessment guide		
<p>Training in this unit may be undertaken on board or through integrated on board and on shore training arrangements. Evidence of competency may be established through:</p> <p>(a) Formative assessment processes under operational conditions appropriate for the particular certification requirements and may be:</p> <ol style="list-style-type: none"> progressive on board assessments throughout the training period; or current competencies skill assessments under either operational or simulated conditions; and <p>(b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment process</p>		

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.13 Competency area: English language

Competency unit	Functional skill components	Criteria for evaluating competence
1 Apply English language to fishing vessel operations	1 interpret charts and nautical publications	English language charts and nautical publications are correctly interpreted in accordance with operational requirements
	2 interpret English language meteorological information and safety messages	English language meteorological information and safety messages are interpreted as appropriate for the safe operation of the vessel
	3 communicate with other ships and coast stations	English language communications with other ships and coast stations are established in accordance with operational requirements
	4 interpret and use relevant sections of IMO standard marine communication phrases, as appropriate	Relevant sections of IMO standard marine communication phrases are interpreted and used in accordance with operational requirements, as appropriate
Range of variables The application of English language communications to fishing vessel operations is only a requirement for the certification of skippers and officers in charge of a navigational watch on fishing vessels 24 m in length and over, engaged in unlimited operations		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

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7.3.14 Competency area: Communications

Competency unit	Functional skill components	Criteria for evaluating competence
1 Identify global maritime distress and safety system (GMDSS) and radiocommunications requirements	1 identify principles and basic factors for GMDSS use	The general principles of the global maritime distress and safety system and the factors associated with its use are identified as appropriate for the operational requirements of the category of fishing vessel involved
	2 identify navigational and meteorological warning systems and select the appropriate communication services	Navigational and meteorological warning systems are identified and the selection of appropriate communication services demonstrated
	3 identify the adverse effects of misuse of communication equipment	The adverse effects of the misuse of communication equipment is identified in accordance with the requirements of the radio regulations
Range of variables Variable communication equipment specifications apply to operations within the designated GMDSS sea areas		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.14 Competency area: Communications (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Provide GMDSS and radiocommunications services	.1 operate radiocommunications equipment	Radiocommunications equipment is operated in accordance with manufacturer's specifications and the provisions of the radio regulations
	.2 provide radio services in an emergency	Radio services, in an emergency situation, are provided efficiently and effectively
	.3 apply search and rescue radiocommunications procedures	Radiocommunications associated with search and rescue activities are conducted in accordance with specified procedures
	.4 use ship reporting systems	Ship reporting systems are used in accordance with specified requirements
	.5 apply radio medical services procedures	Radio medical services are provided in accordance with specified procedures
	.6 apply measures to protect personnel from radiation hazards	Preventative measures to protect personnel from radiation hazards are taken in accordance with the specified procedures

Range of variables

- Variable radiocommunication requirements will be encountered with respect to:
- the size and operational category of fishing vessels
- the selection of services for navigational and meteorological warnings
- radio services provided in an emergency

Functional skill training option assessment guide

Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:

- Formative assessment processes under operational conditions which may be either:
 - progressive on board assessments throughout the training period; or
 - current competencies skill assessments under either operational or simulated conditions; and
- Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes and evidence of the successful completion of an appropriate practical test

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.14 Competency area: Communications (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Make visual signals	.1 use the International Code of Signals	The International Code of Signals is used in accordance with the specifications relating to the identification of single flag meanings, and referencing of the relevant sections of the Code of Signals
	.2 transmit and receive signals by Morse light	Morse code light signals, appropriate for distress and emergency signalling purposes, are transmitted and received

Range of variables

Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:

- Formative assessment processes under operational conditions which may be either:
 - progressive on board assessments throughout the training period; or
 - current competencies skill assessments under either operational or simulated conditions; and
- Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Functional skill training option assessment guide

Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:

- Formative assessment processes under operational conditions which may be either:
 - progressive on board assessments throughout the training period; or
 - current competencies skill assessments under either operational or simulated conditions; and
- Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.15 Competency area: Life saving

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Apply personal survival techniques	.1 identify emergency procedures responses	The identification of the on board location of lifejackets is demonstrated. The actions to be taken when called to survival craft stations are correctly identified. The actions to be taken when required to abandon a fishing vessel are correctly identified
	.2 identify personal survival procedures	The procedures for boarding a survival craft are identified. The procedures for righting a capsized liferaft are identified. The precautions required for protection against heat and cold are identified. The effects of hypothermia are identified. The proper use of food and water rations are identified
Range of variables The application of personal survival techniques may: <ul style="list-style-type: none"> involve differences in emergency procedures between fishing vessels the use of liferafts the use of lifeboats 		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: <ol style="list-style-type: none"> Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> progressive on board assessments throughout the training period; or current competencies skill assessments under either operational or simulated conditions; and Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 7
Section 3

7.3.15 Competency area: Life saving (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.2 Operate and maintain emergency equipment	.1 use lifejackets and lifebuoys	Lifejackets and lifebuoys are used in accordance with the specified procedures
	.2 use flares and rockets	Flares and rockets are used in accordance with specified procedures and manufacturer's specifications
	.3 use liferafts and lifeboats	Liferafts and lifeboats are used in accordance with the specified procedures. Liferafts and lifeboats are maintained in accordance with the specified requirements
	.4 use emergency position indicating radio beacons	Emergency Position Indicating Radio Beacons (EPIRBs) are used in accordance with the specified procedures. EPIRBs are maintained in accordance with the specified requirements
	.5 maintain emergency equipment	
Range of variables The operation and maintenance of emergency equipment may include: <ul style="list-style-type: none"> the use of hand held flares the use of parachute distress flares the use of smoke flares EPIRBs of differing manufacture 		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: <ol style="list-style-type: none"> Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> progressive on board assessments throughout the training period; or current competencies skill assessments under either operational or simulated conditions; and Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.



7.3.16 Competency area: Search and rescue

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Apply search and rescue arrangements	.1 identify search and rescue procedures specified by the Merchant Ship Search and Rescue Manual (MERSAR) and International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual)	Search and rescue procedures are identified in accordance with the specifications of the Merchant Ship Search and Rescue Manual (MERSAR) and International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual)
	.2 apply search and rescue procedures specified by the Merchant Ship Search and Rescue Manual (MERSAR) and International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual)	Search and rescue procedures are applied in accordance with the specifications of the Merchant Ship Search and Rescue Manual (MERSAR) and International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual)

Range of variables

Functional skill training option assessment guide

Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:

- (a) Formative assessment processes under operational conditions which may be either:
 - (1) progressive on board assessments throughout the training period; or
 - (2) current competencies skill assessments under either operational or simulated conditions; and
- (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.13.17 Competency area: Safety and health for fishing vessel personnel

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Unit: Apply safety and health procedures for fishing vessel personnel	.1 apply safety and health precautions and procedures for fishing vessel personnel on board	Safety precautions and procedures relating to the activities of fishing vessel personnel working on deck and in machinery spaces are applied. Safety precautions relating to the use of protective clothing and equipment are applied as appropriate for the category of vessel concerned
	.2 identify safety precautions associated with the operation of fishing gear	Safety precautions for fishing vessel personnel operating fishing gear are identified as appropriate for the fishing method and category of fishing vessel concerned
Range of variables		
<p>The application of Part A of the Code of Safety for Fishermen and Fishing Vessels will vary in accordance with the operational variation encountered in differing fishing techniques, categories of vessels and their areas of operation. Particular reference should be given to chapters 3, 4, 5, 6, 7, and 10 of the Code</p>		
Functional skill training option assessment guide		
<p>Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through:</p> <ul style="list-style-type: none"> (a) Formative assessment processes under operational conditions which may be either: <ul style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes 		

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.17 Competency area: Safety and health for fishing vessel personnel (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
2 Demonstrate knowledge of the Provisions of Part "A" of the FAO/ILO/IMO Code of Safety for Fishermen to the operational safety of fishing vessels	.1 demonstrate knowledge of fishing vessel on board safety procedures	On board safety procedures are applied in accordance with the recommended operational safety requirements of the Code
	.2 demonstrate knowledge of safety in fishing operations techniques and procedures	Techniques and procedures relating to safety in fishing operations are applied in accordance with the recommended safety procedures of the indicated Code for the fishing operation concerned
Range of variables		
The application of Part A of the Code of Safety for Fishermen and Fishing Vessels will vary in accordance with the operational variation encountered in differing fishing techniques, categories of vessels and their areas of operation. Particular reference should be given to chapters 3, 4, 5, 6, 7 and 10 of the Code	Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes	

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.18 Competency area: Human relationships

Competency unit	Functional skill components	Criteria for evaluating competence
1 Unit: Apply personnel management recommendations	.1 identify fishing vessel personnel management requirements	Fishing vessel personnel management practices, appropriate for the equitable distribution of on board duties, are identified in accordance with the requirements of the vessel concerned. (See appendix 41)
	.2 establish training arrangements for safeguarding human relationships on board fishing vessels	Training arrangements conducive to safeguarding good human relationships are established and maintained in accordance with the requirements of the category of fishing vessel concerned
	.3 apply measures to minimize loneliness and isolation among fishing vessel personnel	Measures to identify and minimize loneliness and isolation among fishing vessel personnel are applied, as appropriate
Range of variables		
The application of personnel management practices may have to take account of:	Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: (a) Formative assessment processes under operational conditions which may be either: (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes	
<ul style="list-style-type: none"> • race and gender mixes in fishing vessel personnel • differing employment conditions applying between fisheries • social responsibilities and obligations with respect to drug and alcohol use 		

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.18 Competency area: Human relationships (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
2 Conduct on board training and assessments	.1 conduct functional skill training arrangements	On board functional skill training arrangements are conducted in accordance with the specification of the relevant training plan
	.2 make on board functional skill assessments	On board functional skill assessments are made in accordance with the specified learning outcomes
	.3 conduct musters and drills	Musters and drills are conducted in accordance with specified requirements
Range of variables Variable requirements for the conducting of musters and drills may be encountered through the application of: <ul style="list-style-type: none"> • Regulation 2, Chapter 1 of the STCW-F Convention • Regulation 3 of the 1993 Torremolinos Protocol 		Functional skill training option assessment guide Training in this unit may be undertaken on board fishing vessels or through integrated on board/on shore training arrangements. The functional skill components should be assessed in relation to each other in accordance with certification requirements. Assessment may be made through: <ol style="list-style-type: none"> Formative assessment processes under operational conditions which may be either: <ol style="list-style-type: none"> progressive on board assessments throughout the training period; or current competencies skill assessments under either operational or simulated conditions; and Summative assessment arrangements which will include a review of evidence gathered during the formative assessment processes

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.19 Competency area: FAO Code of Conduct for Responsible Fisheries

Competency unit	Functional skill components	Criteria for evaluating competence
.1 Unit: Principles and guidelines of the Code of Conduct	.1 explain the objectives of the Code of Conduct	The objectives of the Code of Conduct are explained in accordance with the guidelines of the Code
	.2 Unit: Responsible harvesting practices	.1 describe the effects of discards and by-catch
.2 define the detrimental effects of lost fishing gear		The detrimental impact of lost fishing gear and lost fishing on fishery resources are defined as appropriate for the fishing method being employed
.3 identify the causes of habitat damage due to fishery operation		Probable damage caused to fishery habitats through fishing activities is identified according to the size and type of fishing operation concerned
.4 describe the purpose of marine reserves		The purpose of establishing marine reserves is described in accordance with the objectives with the objectives indicated by the Code of Conduct
.5 explain the appropriate utilization of fish as food		The need to focus upon the utilization of fish as food is explained in accordance with objectives of preserving fish resources

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

7.3.19 Competency area: Code of Conduct for Responsible Fisheries (cont.)

Competency unit	Functional skill components	Criteria for evaluating competence
.3 Unit: Responsible fishing gear/selectivity	.1 explain the importance of fishing gear selectivity	The importance of fishing gear selectivity is explained in accordance with the ratio of by-catch to target species catch in local fisheries
	.1 explain the factors that affect size selection	The factors affecting size selection are explained in accordance with the appropriate ratio of juvenile/adult catch rates
	.2 explain factors that affect species selection	The factors that affect species selection are explained in accordance with conditions applying in the local fishery
.4 Energy optimisation	.3 explain the various factors that can optimize energy use in the fishing industry	The factors that can optimize energy use in the fishing industry are explained in the context of the local fisheries operational conditions
	Functional skill training option assessment guide	
	Variable requirements in the application of the FAO Code of Conduct for Responsible Fisheries may occur as a result of:	Training in this unit may be undertaken on board or through integrated on board and on shore training arrangements. Evidence of competency may be established through:
<ul style="list-style-type: none"> • Fishing method used • Scale of fishery operation • State of development of the country concerned 	(a) Formative assessment processes under operational conditions appropriate for the particular certification requirements and may be: <ol style="list-style-type: none"> (1) progressive on board assessments throughout the training period; or (2) current competencies skill assessments under either operational or simulated conditions; and (b) Summative assessment arrangements which will include a review of evidence gathered during the formative assessment process	

Note: Refer to the matrix listed in chapter 7, section 2, for guidance on the appropriate application of the functional skill components of this unit to the various vessel size and operational categories.

Chapter 8

Minimum requirements for certification

This chapter refers to the mandatory minimum requirements contained in regulations 1, 2, 3, 4, 5, 6 and 8 of chapter II of the 1995 STCW-F Convention.

8.1 Mandatory minimum requirements for certification of skippers and officers in charge of a navigational watch on fishing vessels of 24 m in length and over*

8.1.1 Fishing vessels operating in unlimited waters

8.1.1.1 Skippers

Every skipper on a fishing vessel of 24 m in length and over operating in unlimited waters should hold an appropriate certificate. Every candidate for certification should:

- .1 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;
- .2 meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels 24 m 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 m in length. However, the Party may allow a period of up to 6 months' seagoing service on fishing vessels to be substituted by the same period of approved seagoing service as an officer in charge of a navigational watch on seagoing ships covered by the 1978 STCW Convention. (*Note:* this text is recommended in the clarifications of MSC/Circ.795);
- .3 have passed an appropriate examination or examinations for assessment of competence to the satisfaction of the Administration. Such examination or examinations should include the material set out in section 5.2. A candidate for examination who holds a valid certificate of competency issued in

* The text of this section should be aligned with any future amendments to the 1995 STCW-F Convention.

accordance with the provisions of the 1978 STCW Convention need not be re-examined in those subjects listed in section 5.2 which were passed at a higher or equivalent level for issue of the Convention certificate.

8.1.1.2 Officers in charge of a navigational watch

Every officer in charge of a navigational watch on a fishing vessel of 24 m in length and over operating in unlimited waters should hold an appropriate certificate. Every candidate for certification should:

- .1 be not less than 18 years of age;
- .2 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;
- .3 have approved seagoing service of not less than two years in the deck department on fishing vessels of not less than 12 m in length. However, the Administration may allow:
 - .1 a period of up to 12 months' seagoing service on fishing vessels to be substituted by a period of special training, provided that the period of the special training programme should be at least equivalent in value to the period of the required seagoing service it substitutes; or
 - .2 a period of up to two years' seagoing service on fishing vessels to be substituted by a period of approved seagoing service evidenced by an approved record book covered by the 1978 STCW Convention. (Note: the text is recommended in the clarifications of MSC/Circ.795);
- .4 have passed an appropriate examination or examinations for the assessment of competency to the satisfaction of the Administration. Such examination or examinations should include the material set out in section 5.3. 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 section 5.3 which were passed at a higher or equivalent level for issue of the Convention certificate.
- .5 meet the applicable requirements of regulation 6 of the 1995 STCW-F Convention set out in section 5.8 of this Document.

8.1.2 Fishing vessels operating in limited waters

8.1.2.1 Skippers

Every skipper on a fishing vessel of 24 m in length and over operating in limited waters should, unless he holds a certificate issued in compliance

with section 8.1.1.1 hold an appropriate certificate issued in compliance with this section. Every candidate for certification should:

- .1 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;
- .2 meet the requirements for certification as an officer in charge of a navigational watch on fishing vessels of 24 m 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 m in length. However, the Party may allow a period of up to 6 months' seagoing service on fishing vessels to be substituted by the same period of approved seagoing service as an officer in charge of a navigational watch on merchant ships. (Note: the text is recommended in the clarifications of MSC/Circ.795);
- .3 have passed an appropriate examination or examinations for the assessment of competence to the satisfaction of the Administration. Such examination or examinations should include the material set out in section 5.4. The Administration, bearing in mind the effect on the safety of all ships and structures which may be operating in the same limited waters, should consider the limited waters it has defined in accordance with section 1.18 and determine any additional material that should be included in the examination or examinations. 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 section 5.4 which were passed at a higher or equivalent level for issue of the Convention certificate.

8.1.2.2 Officers in charge of a navigational watch

Every officer in charge of a navigational watch on a fishing vessel of 24 m in length and over operating in limited waters should either hold a certificate issued in compliance with paragraph 8.1.1.3 or hold an appropriate certificate issued in compliance with this section. Every candidate for certification should:

- .1 be not less than 18 years of age;
- .2 satisfy the Administration as to medical fitness, particularly regarding eyesight and hearing;
- .3 have approved seagoing service of not less than two years in deck department on fishing vessels of not less than 12 m in length. However, the Administration may allow:
 - .1 a period of up to 12 months' seagoing service on fishing vessels to be substituted by a period of special training,